



Let's grow our future. Naturally.

How ingredients contribute
to the UN Global Goals

CHR HANSEN

Improving food & health

About Chr. Hansen

Chr. Hansen is a global bioscience company that develops natural solutions for the food, nutritional, pharmaceutical and agricultural industries.

We develop and produce cultures, enzymes, probiotics, plant protection and natural colors for a rich variety of foods, confectionery, beverages, dietary supplements and animal feed. In addition to its existing business areas, Chr. Hansen is leading the development of new microbial solutions for human health.

All solutions are based on strong research & development competencies coupled with close customer relationships.

We have been in business since 1874 and have more than 3,000 dedicated employees in more than 30 countries.

When ingredients make a difference

Every day we touch 1 billion lives

Every day, Chr. Hansen's ingredients are consumed by more than 1 billion people¹. This gives us a unique opportunity with our bioscience solutions to address some of the world's biggest challenges such as the need to feed a growing population, limit food waste and fight non communicable diseases.

These global challenges have been framed by the 17 UN Global Goals for Sustainable Development (UN Global Goals). The goals have been adopted by all UN member states in 2015 and set the direction for how to address the world's biggest challenges over the next 15 years.

Purpose of this report

Chr. Hansen is committed to improving food and health for a sustainable future. To assess our contribution to sustainability, we have estimated the percentage of our gross revenue that has a positive impact on the UN Global Goals.

Externally assured

Chr. Hansen is a science-based company, and we want our communication on sustainability to be data-driven and externally assured.

Our methodology, documentation and final conclusions have therefore gone through a limited assurance process, in accordance with ISAE 3000, by the international accounting company PwC².

The measuring focuses on the three UN Global Goals³ where Chr. Hansen has the biggest impact:

UN GLOBAL GOAL 2

Zero Hunger:
End hunger, achieve food security and improved nutrition and promote sustainable agriculture

UN GLOBAL GOAL 3

Good Health and Well-being:
Ensure healthy lives and promote well-being for all at all ages

UN GLOBAL GOAL 12

Responsible Consumption and Production:
Ensure sustainable consumption and production patterns

¹ An estimate based on Chr. Hansen's sales volumes.

² See PwC's assurance statement attached.

³ The three goals are also the focus of Chr. Hansen's Sustainability strategy, which is available at www.chr-hansen.com/sustainability.

Our contribution to the UN Global Goals

Chr. Hansen has mapped its entire product portfolio containing more than 3,000 products and the mapping concludes that:

81%
of our gross revenue has a positive impact on UN Global Goals 2, 3 and 12

The products not included in this figure can still have a positive contribution, but it has not yet been sufficiently documented.

Next steps in the assessment will be:

- Enhance and expand our documentation
- Create partnerships and collaborate with stakeholders
- Assess the impacts from our pipeline solutions

Summary

The table shows Chr. Hansen's contribution to the three selected UN Global Goals.

The overall result of 81% contribution has been aligned with the sales data, thereby disallowing double counting.

Impact category	UN Global Goal 2 Zero Hunger	UN Global Goal 3 Good Health and Well-being	UN Global Goal 12 Responsible Consumption and Production
Improving food and the environment			
Increase productivity and yield	✓		✓
Reduce waste	✓		✓
Substitute artificial ingredients		✓	✓
Increase food safety		✓	✓
Improving animal and human health			
Enhance animal welfare	✓		
Promote health and well-being		✓	
Reduce salt, sugar, fat and lactose		✓	
Ensure access to affordable and available nutrition	✓		✓



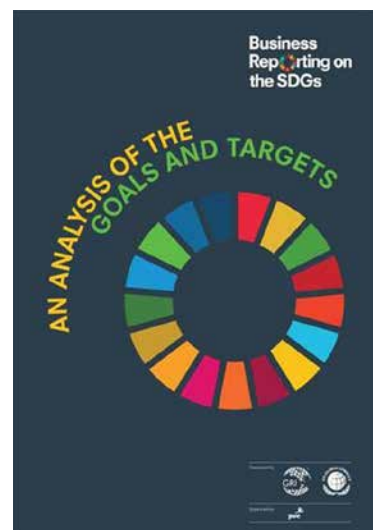
WHAT OUR INVESTORS SAY:

**"Ensuring sustainability
of products and services
is essential for Chr. Hansen
to drive business growth
and meet the evolving
demands of the market."**

The five-step approach

The five-step approach outlines the process Chr. Hansen has developed and used to measure its contribution to the UN Global Goals.

The five-step approach is a pragmatic way to measure business impact and is aligned with the preliminary recommendations given in the Business Reporting on the SDGs developed by the Global Reporting Initiative and the UN Global Compact.



An Analysis of the Goals and Targets, developed by GRI and UN Global Compact, with the support of PwC, September 2017.

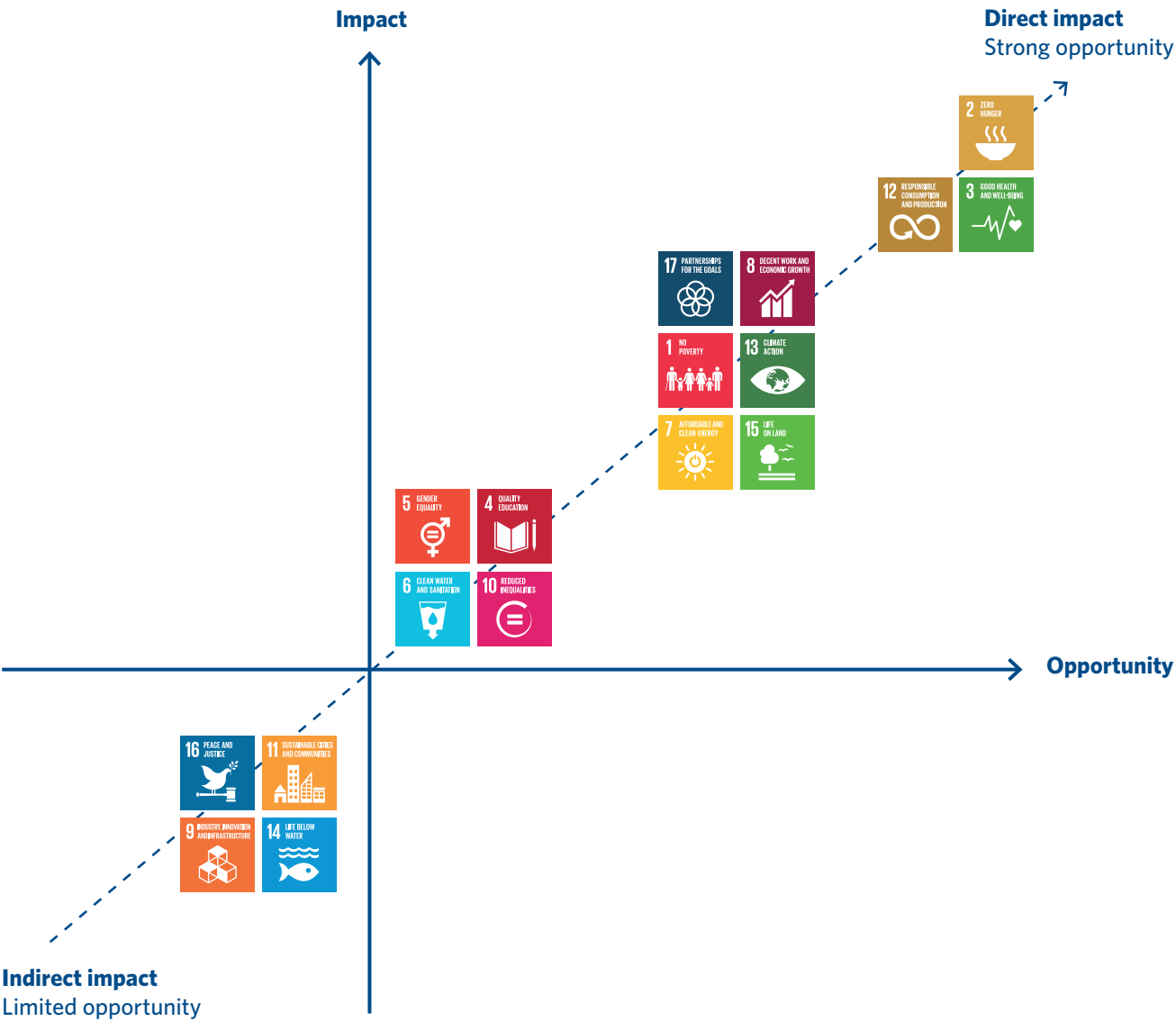


Step 1: Identify impact areas

To find the UN Global Goals where Chr. Hansen has the biggest impact, a prescreening⁴ was carried out matching all 17 goals and 169 targets with Chr. Hansen’s business impact and potential opportunity⁵.

Map the value chain to identify impact areas

The figure shows Chr. Hansen’s impact on all 17 goals⁶.



⁴ See Appendix 1 for details on the prescreening.
⁵ Seeking inspiration from the *Analysis of the Goals and Targets*, developed by GRI and UN Global Compact, with the support of PwC, September 2017.
⁶ Inspired by the overview in *Making it your business, Engaging with the Sustainable Development Goals*, PwC, https://www.pwc.com/gx/en/sustainability/SDG/SDG%20Research_FINAL.pdf.

Focus on the UN Global Goals where the Company has the biggest impact

Chr. Hansen has chosen to focus on three UN Global Goals, 2, 3 and 12, where the Company has the biggest impact. To assess Chr. Hansen’s business impact, it is important to analyze the targets within these goals that provide a more concrete foundation for action as shown below.



Example:

Chr. Hansen’s natural Plant Health solutions for sustainable agriculture such as NEMIX® C can increase yields in several crops by +10% using naturally occurring microorganisms. The products can, in some instances, replace harsh chemicals and are safe for the environment and safe for the workers to apply.



End hunger and promote sustainable agriculture

UN Global Goal target 2.1

“By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.”

UN Global Goal target 2.4

“By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.”



Example:

Chr. Hansen’s owns and develops some of the world’s most extensively documented probiotics, such as LGG® and BB-12®. Probiotics are natural cultures that can help improve digestion and enhance well-being.



Ensure healthy lives and promote well-being for all at all ages

UN Global Goal target 3.4

“By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.”

UN Global Goal target 3.9

“By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.”



Example:

Chr. Hansen has products that can help enhance food quality and reduce food waste using nature’s own protective cultures. Products such as FreshQ® protect fresh dairy in a natural way, extend shelf life and give consumers more time to consume the yogurt.



Ensure sustainable consumption and production patterns

UN Global Goal target 12.3

“By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.”

UN Global Goal target 12.4





“By 2020, achieve environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.”

Step 2:

Measure business impact





Improving food and the environment

Products that qualify as having a positive impact on food and the environment:

Impact category	Definition	UN Global Goal	Examples
Increase productivity and yield 	Refers to products that help increase productivity and efficient production, either at output or process level.	UN Global Goal 2.4 UN Global Goal 12.3	E.g. Products that enable cheese manufacturers to produce more cheese with less milk.
Reduce waste 	Waste reduction occurring at production, retail or consumer level. It can relate to reduced production waste, improved processes, reduced spoilage or extended shelf life.	UN Global Goal 2.1 UN Global Goal 12.3	E.g. Bioprotective solutions that keep yogurt fresh for longer.
Substitute artificial ingredients 	Reduction of artificial ingredients contributes to reducing their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.	UN Global Goal 3.9 UN Global Goal 12.4	E.g. Products that provide a more natural alternative to the common practice for instance by replacing sorbate in dairy products and synthetic colors in beverages.
Increase food safety 	Includes products that contribute to or ensure safe food for consumption, free from contamination, harmful bacteria, viruses or chemical substances causing diseases, improving the efficiency and effectiveness of material use.	UN Global Goal 3.9 UN Global Goal 12.3	E.g. Bioprotective cultures that reduce the risk of listeria in meat.

Improving animal and human health

Products that qualify as having a positive impact on animal and human health:

Impact category	Definition	UN Global Goal	Examples
Enhance animal welfare 	Ensure sustainable food production by improving the welfare of animals in production.	UN Global Goal 2.4	E.g. Products that reduce the number of animal deaths, the severity and the length of a disease.
Promote health and well-being 	Ingredients in food that public health authorities recommend should be increased in the diet to help reduce the risk of non-communicable diseases.	UN Global Goal 3.4	E.g. Products that enhance digestive health and well-being in humans.
Reduce salt, sugar, fat and lactose 	Products that can reduce or remove food ingredients that public health authorities recommend should be limited in the diet to reduce the risk of non-communicable diseases (e.g. sugar, salt and fat) or allergies (e.g. lactose and nuts).	UN Global Goal 3.4	E.g. Products that reduce lactose and sugar in yogurt.
Ensure access to affordable and available nutrition 	Products that enable people living in poverty and people in vulnerable situations to access a healthy diet. This is achieved through adjusted packaging sizes, lower prices or partnerships with NGOs to establish sustainable production programs.	UN Global Goal 2.1 UN Global Goal 12.3	E.g. Products that enable camel farmers to produce milk from their camels.

Step 3: Collect documentation

Document the impact and support it with sales data

Documenting impact

Chr. Hansen's entire product portfolio of more than 3,000 products has been assessed to measure its contribution to the UN Global Goals.

The assessment results in a list of product categories matched with their respective contribution to the impact categories (see step 2) that make a well-documented, significant and additional contribution to the UN Global Goals (see Appendix 2).

For each of the product categories, a documentation report has been developed in collaboration with internal experts, sales teams and R&D. The reports include an explanation on how the product category contributes to the UN Global Goals, substantiated with key data points and published documentation.

Types of documentation

The documentation reports include one of the following types of documentation for each of the product categories⁷:

- Product claim based on scientific trials
- Product claim with reviewed impact studies/articles
- Product claim with customer feedback
- Product claim with R&D internal test results

Matching with sales data

The product categories included in the assessment have been matched with sales data to estimate the percentage of gross revenue. To support this assessment, the Finance Department developed an excel based tool together with the Sustainability Department to match the eight impact categories (see step 2) with annual sales figures.

MORE THAN

3,000
products have been
assessed to measure
their contribution to
the UN Global Goals

Step 4: External assurance

Verify methodology, process and findings

It is important to Chr. Hansen that the process to map its contribution to the UN Global Goals is transparent and that the data integrity is high.

The international assurance company PwC has therefore been asked to review the methodology, process and documentation behind the mapping of Chr. Hansen's contribution to the UN Global Goals. Please see the Limited assurance statement in Appendix 3.

JENS PULTZ PEDERSEN, DIRECTOR, PWC:

"Chr. Hansen has taken a new approach to document how the Company through its activities support the UN Global Goals. Since there is no generally accepted standard for how this can be done, it has been an exciting process to undertake an assurance engagement and provide advice and sparring around controlling and data quality and thereby support this new form of reporting progress."





Step 5: Report on progress

External communication of results

Chr. Hansen aims to communicate its contribution to the UN Global Goals on an annual basis. This will allow external stakeholders to review the figures and together we can improve the methodology for measuring the Company's contribution to the UN Global Goals.

As a global production company, Chr. Hansen is continuously trying to reduce its energy consumption and any negative environmental and social impacts. To ensure progress, Chr. Hansen reports annually on a set of targets, relating to its commitment to the UN Global Goals (see targets on the right) as well as operational targets for its social, environmental and ethical performance (see Chr. Hansen's website)⁸.

External reporting on progress is important to Chr. Hansen to keep track of performance and continuously improve the Company's contribution to a sustainable future, which is at the heart of its company purpose, *Improving food and health – for a sustainable future*.

Chr. Hansen's sustainability targets, linking to the UN Global Goals

2025 (UN GLOBAL GOAL 2)

25 million
hectares treated with
Chr. Hansen's natural
plant protection solutions

2020 (UN GLOBAL GOAL 3)

5
health-related
products launched

2020 (UN GLOBAL GOAL 12)

**700,000
ton**
reduction in yogurt waste

⁸ www.chr-hansen.com/sustainability

Appendix 1:
Pre-screening of Chr. Hansen's impact
on all 17 UN Global Goals

UN Global Goal	Chr. Hansen's impact and opportunity
1 No Poverty	Direct impact on affordable food and increase in yield
2 Zero Hunger	Significant direct impact and strong opportunity due to multiple products enabling more productive food production and resilient and sustainable agriculture that reduces hunger
3 Good Health and Well-being	Significant direct impact and strong opportunity due to multiple products enabling global health through probiotics and healthier and safer food solutions
4 Quality Education	Indirect impact through numerous collaborations with universities and training of employees
5 Gender Equality	Indirect impact through solutions that enable women globally to initiate more effective yogurt and cheese production
6 Clean Water and Sanitation	Indirect impact as natural plant solutions make uptake of water more efficient and reduce contamination of groundwater
7 Affordable and Clean Energy	Direct impact through more efficient production in dairy and agriculture that reduces energy consumption
8 Decent Work and Economic Growth	Direct impact through multiple solutions to enhance more efficient production, resulting in increased yield, sustainable growth and job creation, especially in dairy, agriculture and animal feed industries
9 Industry, Innovation and Infrastructure	Limited impact and opportunity
10 Reduced Inequalities	Indirect impact as our solutions enable small-scale farmers and dairies worldwide to create more efficient production and earn a living wage
11 Sustainable Cities and Communities	Limited impact and opportunity
12 Responsible Consumption and Production	Significant direct impact and strong opportunity through multiple solutions that reduce food waste and enable dairy producers and farmers to produce more with less
13 Climate Action	Direct impact due to multiple solutions that reduce the use of energy in dairy production and support less carbon-intensive agricultural practices
14 Life Below Water	Limited impact and opportunity
15 Life on Land	Direct impact due to solutions that increase forage flexibility may have a significant contribution
16 Peace, Justice and Strong Institutions	Limited impact and opportunity
17 Partnerships for the Goals	Direct impact through multiple research partnerships and partnerships to reach targets in the 2020 Sustainability strategy

Appendix 2:
List of Chr. Hansen's product categories, contribution
to impact categories and types of documentation

Area	Product category	Positive contribution to Impact Category	Type of documentation
Cheese	Starter and ripening cultures	<ul style="list-style-type: none">Increase in productivity and yield	Product claim with customer feedback
Cheese	Bioprotective cultures and enzymes	<ul style="list-style-type: none">Reduce wasteSubstitute artificial ingredients	Product claim with reviewed impact studies/articles
Cheese	Coagulants	<ul style="list-style-type: none">Increase in productivity and yieldPromote health and well-beingReduce salt, sugar, fat and lactoseAccess to affordable and available nutrition	Product claim with customer feedback
Fresh dairy	Starter cultures ⁹	<ul style="list-style-type: none">Increase in productivity and yieldReduce wasteReduce salt, sugar, fat and lactoseAccess to affordable and available nutrition	Product claim with R&D internal test results
Fresh dairy	Probiotics and combined cultures	<ul style="list-style-type: none">Increase in productivity and yieldReduce wastePromote health and well-beingReduce salt, sugar, fat and lactoseAccess to affordable and available nutrition	Product claim with R&D internal test results and scientific trials
Fresh dairy	Bioprotection	<ul style="list-style-type: none">Increase in productivity and yieldReduce wasteSubstitute artificial ingredients	Product claim with reviewed impact studies/articles
Fresh dairy	Enzymes	<ul style="list-style-type: none">Increase in productivity and yieldReduce salt, sugar, fat and lactose	Product claim with R&D internal test results
Test kits	Test kits	<ul style="list-style-type: none">Increase food safety	Product claim with customer feedback
Meat cultures	Molds, fermentation cultures	<ul style="list-style-type: none">Reduce wasteSubstitute artificial ingredientsIncrease food safety	Product claim with reviewed impact studies/articles
Human health	Probiotics	<ul style="list-style-type: none">Promote health and well-being	Product claim based on scientific trials
Animal health	Silage inoculants	<ul style="list-style-type: none">Increase in productivity and yieldReduce waste	Product claim with R&D internal test results and customer feedback
Animal health	Probiotics for animals	<ul style="list-style-type: none">Increase in productivity and yieldEnhance animal welfare	Product claim based on scientific trials and reviewed articles
Plant health	Biological plant protection	<ul style="list-style-type: none">Increase in productivity and yield	Product claim based on scientific trials
Natural colors	Natural colors	<ul style="list-style-type: none">Substitute artificial ingredients	Product claim with customer feedback

⁹ For Fresh dairy, additionality is defined as products launched after 2006 starter culture.

Appendix 3: Limited assurance statement



Independent practitioner's limited assurance report on the 2016/17 contribution of Chr. Hansen Holding A/S to the UN Global Goals

To the stakeholders of Chr. Hansen Holding A/S

We have been engaged by Chr. Hansen Holding A/S to obtain limited assurance on the Company's 2016/17 statement named "Let's grow our future. Naturally. – How ingredients contribute to the UN Global Goals" where the impact of Chr. Hansen Holding A/S products on the UN Sustainable Development Goals (SDGs) is consolidated in terms of percentage of gross revenue in support of selected SDGs. In the statement, Chr. Hansen Holding A/S has mapped its entire product portfolio and concluded that 81% of its gross revenue has a positive impact on one or more of UN SDGs number 2, 3 and 12.

Management's responsibility

The Chr. Hansen Holding A/S statement contains defined criteria including reporting scope, assumptions and estimations made as well as a description of the applied methodology when defining and consolidating gross revenue for sold products with positive impact on one or more of the UN SDGs number 2, 3 and 12. The Management of Chr. Hansen Holding A/S is responsible for deciding on these suitable criteria, assumptions and estimations applied in the calculation and consolidation. Furthermore, Management is responsible for ensuring that the preparation of the statement is in accordance with the stated criteria and described methodology. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation such that the information is free of material misstatements, whether due to fraud or error.

Our independence and quality control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

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

Our responsibility

Our responsibility is, based on the procedures we have performed and the evidence we have obtained, to express a limited assurance conclusion on the 2016/17 statement, hereunder the gross revenue percentage in support of one or more of selected SDGs number 2, 3 and 12. We conducted our limited assurance engagement in accordance with International Standards on Assurance Engagements 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information (ISAE 3000). The standard is issued by the International Auditing and Assurance Standards Board, and requires that we plan and perform this engagement to obtain limited assurance whether the subject matter is free from material misstatement. A multidisciplinary team including assurance practitioners, an engineer and a Ph.D. in international development studies conducted this engagement.

A limited assurance engagement undertaken in accordance with ISAE 3000 involves assessing the suitability in the circumstances of Chr. Hansen Holding A/S and the use of defined criteria and methodology as the basis for the preparation of the statement, hereunder the gross revenue percentage in support of one or more of selected SDGs number 2, 3 and 12. In addition, it involves assessing the risks of material misstatement whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation.

The procedures we performed were based on our professional judgment and comprised inquiries regarding preparation of product data sheets, assessment of calculations, assumptions and estimations, and assessment of underlying documentation. During our work, we have conducted interviews and show me meetings with key individuals at Chr. Hansen Holding A/S responsible for sales and for preparation of product data sheets, product-specific data as well as for consolidation and calculations. We have assessed that consolidated gross revenues per product, taking into consideration customer discounts, align with the audited net revenue in the 2016/17 annual report. In addition, during the interviews, we have assessed whether principles for selection and inclusion of products in the calculations are conservative in nature when considering impacts during use.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Accordingly, we express a limited assurance conclusion.

Limited review conclusion

Based on our work, nothing has come to our attention causing us not to believe that the Chr. Hansen Holding A/S statement named "Let's grow our future. Naturally. – How ingredients contribute to the UN Global Goals" regarding the 2016/17 gross revenue percentage in support of one or more of selected SDGs number 2, 3 and 12 has been prepared, in all material respects, in accordance with the stated criteria and methodology.

Hellerup, October 12, 2017

PricewaterhouseCoopers
Statsautoriseret Revisionspartnerselskab

A handwritten signature in blue ink, appearing to read 'Rasmus Friis Jørgensen'.

Rasmus Friis Jørgensen
State-authorized public accountant

A handwritten signature in blue ink, appearing to read 'Jens Pultz Pedersen'.

Jens Pultz Pedersen
M.Sc.(eng.)

