

Annual report 2020/21
(Financial year September 1, 2020 – August 31, 2021)

Chr. Hansen A/S
Bøge Allé 10-12
DK-2970 Hørsholm

Business registration no. 12 51 64 79

The Annual General Meeting adopted the annual report on December 7, 2021

Chairman of the General Meeting: _____

Table of content

	Page
Company information	3
Management commentary	4
Statement by Management on the annual report	8
Independent Auditor's Report	10
Income statement, September 1 – August 31, 2021	12
Balance sheet at August 31, 2021	13
Statement of changes in the Equity	15
Notes to the income statement	16

Company information

Chr. Hansen A/S
Bøge Allé 10-12
DK-2970 Hørsholm
Denmark
Phone: +45 45 74 74 74
Fax: +45 45 74 88 88
www.chr-hansen.com
Business registration no.: 12 51 64 79

Board of Directors: Lise Skaarup Mortensen, Chairman
Torsten Steenholt Christensen
Winnie H. Bügel
Mikkel Wisborg-Møller, Employee representative
Asger Geppel, Employee representative

Executive Board: Winnie H. Bügel, CEO
Alice Hjørdis Larsen, CVP HR

Auditors: PricewaterhouseCoopers
Statsautoriseret Revisionspartnerselskab

Management commentary

Chr. Hansen A/S is a company within the Chr. Hansen Group, and is 100% owned by Chr. Hansen Holding A/S.

The financial year 2020/21 has been a satisfying year for Chr. Hansen A/S. A sustainable business model combined with an adaptable organization has secured Chr. Hansen yet another year with revenue growth both in the most important business areas.

Business structure

Chr. Hansen A/S is organized into two business units. The business units Food Cultures & Enzymes and Health & Nutrition.

Through our new 2025 Strategy, we will cement our position as a global, differentiated bioscience company. We will continue focus on the things that we are uniquely good at – microbial science.

Food Cultures & Enzymes

Chr. Hansen is the market leader on the cultures and enzymes market. Our goal is to deliver innovative solutions of the highest quality on the culture and enzymes market. It is an important part of Chr. Hansen's strategy to continuously enable our customers to improve their business with new concepts which create value in dairy products and processes and at the same time optimize food safety.

Health & Nutrition

Besides the animal and feed industry, the division is developing new products for the food supplement industry and the pharmaceutical industry, first and foremost based on probiotic cultures. Chr. Hansen is one of the global leaders within the areas. The business area within microbiome has continued its development in the financial year 2020/21.

Ensuring stable delivery during COVID-19

Over the past years, Chr. Hansen A/S has built up a strategic set-up with strong logistics partners around the globe, as part of the company's business continuity program. When COVID-19 tested the company's supply chain robustness, this strategic set-up along with the general competence of all colleagues in global customer service and global logistics, proved its worth.

Chr. Hansen A/S maintained business continuity and ensured reliable supply to all global customers in the face of sudden and lasting risks and disruptions caused by COVID-19.

Creative and committed employees

As a knowledge-based company Chr. Hansen is very dependent on having committed and motivated employees, as well as skilled managers. Chr. Hansen therefore invests in the development of competences through ambitious development programs for employees and managers. Besides this competence-based platform, we are ready to further develop our activities within our existing business areas.

A sustainable business

In Chr. Hansen A/S, we take our responsibility to do business in a sustainable way very seriously. We have constant focus on creating value while keeping our impact on the surrounding society to a minimum and securing a good working environment for all our employees.

Statutory report on social responsibility pursuant to ÅRL 99a

The management commentary does not include a full review of corporate social responsibility. Instead we refer to the Chr. Hansen Group Annual Report for 2020/21, which constitutes Chr. Hansen Groups reporting on the progress towards FN's Global Compact and is in accordance with the Danish Financial Statements Act regarding corporate social responsibility. The report can be found on:

www://chr-hansen.com/en/investors/reports-and-presentations

Statutory diversity report pursuant to ÅRL 99b

Chr. Hansen A/S complies with the group strategy for Diversity and Inclusion (D&I) with focus on gender, Chr. Hansen's definition of a diverse team is striving to have a diverse workforce which means a strong background, work and life experience, socio economics, diversity of thought, nationality and gender.

The diversity within the Board of directors is 1 woman and 2 men which are Danes with different educational background. Thereby, Chr. Hansen A/S has equal representation of men and women on the Board of Directors in accordance with the Danish Financial Statements Act section 99 (b). No foreign employees are in the Board of Directors.

Chr. Hansen A/S strives to create a work environment that provides employees with equal opportunities in terms of personal and professional development. In our recruitment processes, we continuously seek to ensure, through specific requirements to agencies, that we meet a diverse pool of candidates with different educational backgrounds, gender, nationalities etc. Internally, we see that the succession pipeline for top level positions is close to being gender balanced. This is a result of diversity and inclusion being high on the agenda during internal organizational review processes, promotions and organizational changes. Chr. Hansen A/S has maintained the share of female directors in 2020/21.

The full policy can be found here:

<https://www.chr-hansen.com/ /media/files/chrhansen/home/investors/policies-and-charters/diversity-and-inclusion.pdf>

Building an inclusive culture for a diverse workforce

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

While we are proud of the diversity of our workforce today, we acknowledge that we still have more work to do, primarily in terms of improving our gender diversity and developing more varied skill-sets among teams of employees. Recognizing that diversity challenges are unique to teams and locations, Chr. Hansen works on a range of parameters to help raise the bar, for example by focusing on unconscious bias and developing engaging and inspiring leaders.

We work with diversity broadly yet believe that gender is an important parameter to pay attention to. This year, the percentage of female managers was 42% compared to 47% of female employees and we will continue to work with this in order to meet the target of having equal ratio between female employees and female managers.

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

Research and development

For Chr. Hansen A/S, innovation is an important contributor to business growth. More than 450 people, which exceeds 30% of the total number of employees, are working with research and development.

Chr. Hansen A/S generally patents all new products of commercial value. The patents protect our investments in research and development and increase the value of our business. In addition, we make sure that our product technology and application methods are protected by a wide patent portfolio.

Risk management

In Chr. Hansen A/S, we view risk management as an integrated part of managing the business. We strive to make sure that we do business in a prudent way where we assess and manage both financial and non-financial risks to protect our employees, assets and reputation. At least once a year, the Board of Directors reviews the risk exposure associated with the activities of Chr. Hansen A/S. Guidelines are adopted for areas of risk, and the development is monitored to secure that identified risks are accounted for, including strategic, operational and financial risks.

Risk

Risks relate to future events or developments that may have an influence on the company achieving its targets. Relevant risks are identified, monitored and reported to the Executive Board and the Board of Directors through an Enterprise Risk Management process following an annual cycle. Furthermore, the identified risks are presented to and discussed by Management on a quarterly basis. The purpose of this process is to identify risks as early as possible and enable Management to proactively adapt business processes and controls to meet, manage or mitigate these risks.

Identified risks are evaluated based on their possible safety, business or financial impact and the likelihood of the risk materializing. Clear roles and responsibilities are assigned for major risks, and mitigation initiatives are identified, prioritized and launched. The most significant risks identified and reported to the Board of Directors are described below, including measures taken to mitigate these.

Chr. Hansen A/S continues to work on identifying and evaluating relevant risks, and the list does not include all risks that could ultimately affect the Company.

Production risk

Chr. Hansen A/S has two main production sites in Denmark; these sites together with the group's sites in Germany, France and US represent the core of Chr. Hansen's business, and each site carefully monitors product safety and delivery performance to manage all potential risks. This consolidation of production allows capacity to be optimized in order to reduce production costs. To minimize the risk of production breakdowns or failures, Chr. Hansen has implemented a risk prevention program where regular audits are conducted, which ensures preventive maintenance and replacements. The company also maintains idle capacity for key processes. As production processes are optimized and automated, dependence on robust IT systems and infrastructure increases. Chr. Hansen continues to reduce complexity in IT systems and conduct regular restore tests.

With this concentrated production setup, there is a risk of a production breakdown interrupting the company's operations and leading to a loss of income in both the short term and the longer term due to long lead times on the replacement of key equipment. The causes might be contamination of production equipment, key equipment breakdown, fire, terrorism and natural disasters.

The risk and effect of a production breakdown are mitigated through maintenance, insurance, fire safety measures, behavior-based training, continuous improvements to operational processes and business continuity plans including alternative production possibilities.

Product safety

The majority of Chr. Hansen's products are sold to the food & beverage, human health, animal health and plant protection industries. Most products are components in customers' end products that are consumed as food, beverages or dietary supplements.

To ensure the highest product safety, Chr. Hansen has an extensive quality assurance and food safety program covering the entire value chain, from the sourcing of raw materials until the finished products are delivered to customers. The risk assessment performed in the food safety program includes an evaluation of the use of our products in customers' end products. Chr. Hansen's food safety program is certified according to internationally recognized food safety standards. The Danish production sites are FSSC 22000 certified.

Health, safety & security

Chr. Hansen is committed to continuously improving both the physical and psychological working environment for its employees. The company has implemented several initiatives to underline the importance of a safe working environment. Monitoring and follow-up of incidents have been strengthened from departmental level to the Executive Board. There is also focus on behavior in relation to IT security due to the increased risk of cybercrime.

Financial risk

As an international business, Chr. Hansen A/S is exposed to a number of financial risks relating to currency and interest rate fluctuations, funding, liquidity, credit and counterparty risks.

Legal risk

Chr. Hansen A/S is from time to time a party to legal proceedings arising in the ordinary course of business. The legal department is focused on analyzing possible risks in a timely manner and mitigating them in an appropriate way using both internal and, if necessary, external capabilities. Despite the focus from Chr. Hansen on these matters, the outcome of legal proceedings cannot be predicted with certainty.

Results

Chr. Hansen A/S achieved revenue in 2020/21 of DKK 5,411 million, equal to an increase in revenue of 1%. The net revenue increase is caused by a mix of the development in exchange rates and actual sales.

In total, DKK 665 million, equal to a share of 12% of total revenue, was spent on research and development expenditure. DKK 77 million was capitalized in 2020/21 (DKK 92 million in 2019/20). Thereby, capitalized research and development spending has decreased by DKK 15 million compared with the previous financial year.

Chr. Hansen A/S's results before tax present a profit of DKK 1,001 million, against DKK 1,526 million in the previous financial year. The result after tax amounts to DKK 813 million in financial year 2020/21, compared to DKK 1,153 million in 2019/20. The decrease in net result is primarily due increased depreciations from acquired assets in HSO Health Care and UAS Labs during 2019/20, with full year effect of depreciations in 2020/21.

The results for the financial year 2020/21 are below our expectations due to increased depreciations from acquired assets.

The number of employees amounts to 1,551 at the end of the financial year, compared to 1,484 for 2019/20.

Investments

The investment activities amounted to DKK 921 million in 2020/21, compared to DKK 4,988 million in 2019/20. The high investment level in 2019/20 was caused by the acquisition of assets in UAS Labs and HSO Health Care as part of our strategy, where we aim to grow faster than the markets we serve by focusing and re-investing in our core, unleashing the potential of our lighthouses and expanding into new adjacencies.

Capital structure

On August 31, 2021 equity amounts to DKK 7.146 billion, equal to an equity ratio of 61%. A dividend of DKK 1,000 million has been paid out to the parent company.

Outlook

Revenue is expected to increase in the financial year 2021/22, however the net result is expected to be at the same level as in 2020/21 due to the uncertainties from Covid-19 impact and increased depreciations from acquired assets. Cash flows are expected to stay at the same level as in 2020/21.

Events after the balance sheet date

After the balance sheet date until today's date, no events have occurred, which could influence the evaluation of this annual report.

Statement by Management on the annual report

5 years' key figures and ratios for Chr. Hansen A/S

<i>Key figures DKK'000</i>	2020/21	2019/20	2018/19	2017/18	2016/17
Income statement					
Revenue	5.411.421	5.351.199	5.219.517	5.254.185	5.530.908
Gross profit	3.272.590	3.332.977	3.278.005	2.911.524	2.842.944
Operating profit	1.024.291	1.759.407	1.857.543	1.741.093	1.694.652
Net financials	(34.226)	(162.913)	(3.504)	(30.526)	6.161
Profit before tax	1.001.076	1.525.675	1.860.416	1.710.567	1.700.812
Net profit	812.722	1.153.070	1.462.142	1.333.943	1.330.210
Balance sheet					
Inventory	478.889	493.627	488.972	449.387	455.088
Trade receivables	215.714	135.058	170.607	119.320	117.583
Equity	7.145.746	6.583.771	3.757.039	3.294.896	2.960.954
Total assets	11.690.276	12.705.487	6.981.798	6.286.998	5.895.271
Investments in intangible and tangible assets	920.525	4.988.404	1.116.508	548.641	1.102.168
Ratios %					
Gross margin (Gross profit * 100 / revenue)	60	62	63	55	51
Operating margin (Operating profit * 100 / revenue)	19	33	36	33	31
Return on invested capital (Operating profit * 100 / total assets end of year)	9	14	27	28	29
Return on equity (Net profit * 100 / equity end of year)	11	18	39	40	45
Equity ratio (Equity * 100 / total assets)	61	52	54	52	50
Growth					
Revenue	5.411.421	5.351.199	5.219.517	5.254.185	5.530.908
Growth in %	1%	3%	-1%	-5%	15%

IFRS16 Leases was implemented using the modified retrospective approach, and comparative figures for 2015/16 - 2018/19 have not been restated.

Statement by Management on the annual report

The Board of Directors and the Executive Board have today considered and adopted the annual report of Chr. Hansen A/S for the financial year September 1, 2020 – August 31, 2021.

The annual report is presented in accordance with the Danish Financial Statements Act.

In our opinion, the financial statements give a true and fair view of the Company's financial position at August 31, 2021 and of the results of its operations for the financial year September 1, 2020 – August 31, 2021.

We believe that the management commentary contains a fair review of the affairs and a condition referred to therein, and describes the company's most significant risks and uncertainties.

We recommend adoption of the annual report at the Annual General Meeting.

Hørsholm, December 7, 2021

Executive Board

Winnie H. Bügel
CEO

Alice Hjørdis Larsen
CVP HR

Board of Directors

Lise Skaarup Mortensen
Chairman

Torsten Steenholt Christensen

Winnie H. Bügel

Mikkel Wisborg-Møller
Employee representative

Asger Geppel
Employee representative

Independent Auditor's Report

To the Shareholders of Chr. Hansen A/S

Opinion

In our opinion, the Financial Statements give a true and fair view of the financial position of the Company at 31 August 2021, and of the results of the Company's operations for the financial year 1 September 2020 - 31 August 2021 in accordance with the Danish Financial Statements Act.

We have audited the Financial Statements of Chr. Hansen A/S for the financial year 1 September 2020 - 31 August 2021, which comprise income statement, balance sheet, statement of changes in equity and notes, including a summary of significant accounting policies ("financial statements").

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs) and the additional requirements applicable in Denmark. Our responsibilities under those standards and requirements are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Company in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) and the additional requirements applicable in Denmark, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Statement on Management's Review

Management is responsible for Management's Review.

Our opinion on the financial statements does not cover Management's Review, and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read Management's Review and, in doing so, consider whether Management's Review is materially inconsistent with the financial statements or our knowledge obtained during the audit, or otherwise appears to be materially misstated.

Moreover, it is our responsibility to consider whether Management's Review provides the information required under the Danish Financial Statements Act.

Based on the work we have performed, in our view, Management's Review is in accordance with the Financial Statements and has been prepared in accordance with the requirements of the Danish Financial Statements Act. We did not identify any material misstatement in Management's Review.

Management's Responsibilities for the Financial Statements

Management is responsible for the preparation of Financial Statements that give a true and fair view in accordance with the Danish Financial Statements Act, and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, Management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting in preparing the financial statements unless Management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that

an audit conducted in accordance with ISAs and the additional requirements applicable in Denmark will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit conducted in accordance with ISAs and the additional requirements applicable in Denmark, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.
- Conclude on the appropriateness of Management's use of the going concern basis of accounting in preparing the financial statements and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and contents of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that gives a true and fair view.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Hellerup, December 7, 2021

PricewaterhouseCoopers
Statsautoriseret Revisionspartnerselskab
CVR No 33 77 12 31

Allan Knudsen
State Authorised Public Accountant
mne29465

Income statement, September 1 - August 31

Amounts in DKK '000	Notes	2020/21 DKK	2019/20 DKK
Revenue	2	5.411.421	5.351.199
Production costs	3	(2.138.831)	(2.018.222)
Gross profit		3.272.590	3.332.977
Research and development costs	3	(664.951)	(550.769)
Sales and marketing expenses	3	(933.317)	(563.782)
Administrative expenses	3	(663.635)	(444.312)
Other operating income	3	30.735	4.283
Other operating expenses	3	(17.131)	(18.990)
Operating profit (EBIT)		1.024.291	1.759.407
Dividends received		11.012	9.181
Financial income	4	130.099	55.571
Impairment investment in Group companies		-	(80.000)
Financial expenses	4	(164.326)	(218.483)
Profit before tax		1.001.076	1.525.675
Income taxes	5	(188.354)	(372.605)
Net profit for the year		812.722	1.153.070
Distribution of result	6		

Balance sheet at August 31, 2021

Assets

Amounts in DKK '000	Notes	2021 DKK	2020 DKK
Non-current assets			
Intangible assets	7		
Goodwill		3.885.836	4.316.484
Patents, trademarks, intellectual property, etc		935.670	1.016.148
Development projects		235.392	241.911
Software		117.950	118.938
Intangible assets in progress		432.530	389.417
Total intangible assets		5.607.378	6.082.898
Tangible assets	8		
Land and buildings		1.414.653	1.174.429
Plant and machinery		825.419	900.207
Other fixtures and equipment		200.034	173.291
Prepayments and assets under construction		1.332.451	1.038.871
Total tangible assets		3.772.557	3.286.798
Financial assets			
Investments in Group companies	9	436.902	436.902
Investments in Joint ventures	10	150.899	94.555
Total financial assets		587.801	531.457
Total non-current assets		9.967.736	9.901.153
Current assets			
Inventories			
Raw materials and consumables		68.011	60.238
Work in progress		184.649	186.980
Finished goods and goods for resale		226.229	246.409
Total inventories		478.889	493.627
Receivables			
Trade receivables		215.714	135.058
Tax receivables		27.363	36.929
Receivables from Group companies		780.728	1.985.175
Receivables from Joint ventures		95.617	38.230
Other receivables		61.983	56.741
Prepayments		60.223	51.122
Total receivables		1.241.628	2.303.255
Cash at bank and in hand		2.024	7.452
Total current assets		1.722.541	2.804.334
Total assets		11.690.276	12.705.487

Balance sheet at August 31, 2021

Equity and liabilities

Amounts in DKK '000

	Notes	2021 DKK	2020 DKK
Equity			
Share capital		194.101	194.101
Retained earnings		5.739.254	5.199.593
Reserve for development projects		212.391	190.077
Proposed dividend		1.000.000	1.000.000
Total equity		7.145.746	6.583.771
Provisions			
Deferred tax	11	1.013.293	917.515
Other provisions		900	926
Total provisions		1.014.193	918.441
Non-current liabilities			
Lease liabilities		536.605	527.675
Mortgage debt		509.282	512.730
Tax payables		85.330	-
Total non-current liabilities	12	1.131.217	1.040.405
Current liabilities			
Lease liabilities		52.210	51.008
Mortgage debt		45.887	3.483
Credit institutions		248.917	83.347
Trade payables		510.301	520.073
Loans from Group companies		1.151.483	2.798.453
Tax payables		-	355.871
Other payables		390.324	350.635
Total current liabilities		2.399.122	4.162.870
Total liabilities		3.530.337	5.203.275
Total equity and liabilities		11.690.276	12.705.487
Accounting policies	1		
Related parties	13		
Accounting relations	14		
Contingent liabilities	15		
Events after the balance sheet date	16		

Statement of changes in Equity

Amounts in DKK '000

Equity

	Share capital	Reserve for development projects	Retained earnings	Proposed dividend	Total equity
Equity at September 1, 2020	194.101	190.077	5.199.593	1.000.000	6.583.771
Dividend distribution	-	-	-	(1.000.000)	(1.000.000)
Dividend proposed	-	-	(1.000.000)	1.000.000	-
Capital injection	-	-	749.253	-	749.253
Reserve for development projects	-	22.314	(22.314)	-	-
Net profit for the year	-	-	812.722	-	812.722
Equity at August 31, 2021	194.101	212.391	5.739.254	1.000.000	7.145.746

The share capital consists of shares of DKK 100 each or multiple thereof.
There has been no changes to the share capital during the last 5 years.

	Share capital	Reserve for development projects	Retained earnings	Proposed dividend	Total equity
Equity at September 1, 2019	194.101	142.746	1.920.192	1.500.000	3.757.039
Dividend distribution	-	-	-	(1.500.000)	(1.500.000)
Dividend proposed	-	-	(1.000.000)	1.000.000	-
Capital injection	-	-	3.173.662	-	3.173.662
Reserve for development projects	-	47.331	(47.331)	-	-
Net profit for the year	-	-	1.153.070	-	1.153.070
Equity at August 31, 2020	194.101	190.077	5.199.593	1.000.000	6.583.771

The share capital is consists of shares of DKK 100 each or multiple thereof.
There has been no changes to the share capital during the last 5 years.

Notes to the income statement

1 Accounting policies

Reporting class

The annual report of Chr. Hansen A/S for the financial year has been prepared in accordance with the provisions of the Danish Financial Statements Act applying to large enterprises of reporting class C.

In accordance with section 112(1) of the Danish Financial Statements Act, Chr. Hansen A/S has not prepared any consolidated financial statements. Chr. Hansen A/S is included in the consolidated financial statements of Chr. Hansen Holding A/S, business registration no. 28 31 86 77.

In accordance with section 86(4) of the Danish Financial Statements Act, Chr. Hansen A/S has not prepared any cash flow statement. With reference to section 98c(3) of the Danish Financial Statements Act, separate information on transactions with associated companies has been omitted. And with reference to section 98c(7) of the Danish Financial Statements Act, separate information on transactions with joint ventures has been omitted. Similarly, with reference to section 99a(7) of the Danish Financial Statements Act, no statement on corporate social responsibility has been prepared.

With reference to section 96(3) the fee to the statutory auditors appointed at the general meeting has not been presented.

The annual report for the financial year 2020/21 is presented in DKK 1,000.

The accounting policies are unchanged from last year.

Accounting policies

Recognition and measurement

Income is recognized in the income statement when earned. This includes value adjustments of financial assets and liabilities which are measured at fair value or amortized cost. All costs are recognized which have been incurred in order to achieve the results for the year, including amortization, depreciation, provisions and reversals that result from changes in accounting estimates previously recognized in the income statement.

Assets are recognized in the balance sheet when it is probable as a result of prior events that future economic benefit will flow to the company, and the value of the asset can be measured reliably.

Liabilities are recognized in the balance sheet when the company has a legal or constructive obligation as a result of prior events, and it is probable that future economic benefits will flow out of the company, and the value of the liability can be measured reliably.

On initial recognition, assets and liabilities are measured at cost. Measurement subsequent to initial recognition is effected as described below for each financial statement item.

Certain financial assets and liabilities are measured at amortized cost; thereby a constant effective discount rate is applied over the lifetime of the asset/liability. Amortized cost is measured as the initial cost less repayments and with addition/deduction of the accumulated amortization of the difference between cost and the nominal value. Thereby, capital gains or losses are allocated out over the entire lifetime of the asset/liability.

Predictable risks or losses arising before the time of presentation of the annual report and which confirm or invalidate affairs and conditions existing at the balance sheet date are considered at recognition and measurement.

Foreign currency translation

On initial recognition, foreign currency transactions are translated applying the exchange rate at the transaction date. Receivables, payables and other monetary items denominated in foreign currencies that have not been settled at the balance sheet date are translated using the exchange rate at the balance sheet date. Exchange rate differences that arise between the rate at the transaction date and the rate in effect at the payment date or the rate of the balance sheet date are recognized in the income statement as financial income or financial expenses; however, see the section on accounting-based hedging.

Accounting policies

Changes in the fair value of derivative financial instruments that are classified as and comply with the requirements for hedging of the fair value of a recognized asset or a recognized liability are recorded in the income statement together with changes in the value of the hedged asset or the hedged liability for that part of the asset or liability that has been hedged.

For derivative financial instruments that do not comply with the requirements for being treated as hedging instruments, changes in fair value are recognized currently in the income statement as financial income or financial expenses.

Income statement

The income statement is classified by function.

Revenue

Chr. Hansen A/S produces a wide range of cultures and enzymes. Revenue of sales of goods and related services and royalties and is recognized at an amount that reflects the consideration to which Chr. Hansen A/S expects to be entitled.

Revenue from a straightforward sale of goods to customers is recognized when control of the goods is transferred to the customer, i.e. when the goods are delivered to the end-customer.

The performance obligations in the contracts are to deliver produced cultures and enzymes to the customers, and each batch delivered is considered a separate performance obligation, as each batch is distinct.

Products are often sold with a discount. Such an agreement can be set up in various ways, but common to all discounts agreements is that revenue is recognized based on the price specified in the contract, net of the estimated discount. Discounts are estimated based on historical data as well as forecasts. Estimated discounts are reassessed at the end of each reporting period.

A relatively small part of revenue originates from commission agreements where agents undertake sales to third parties in return for commission on realized sales. Revenue from such agreements is recognized, when the goods are delivered, as the nature of the performance obligation is to provide the specified goods.

A trade receivable is recognized when the customer obtains control of the goods and an invoice is issued, as this is the point in time when the consideration is unconditional and only the passage of time is required before the payment is due.

The obligation to provide a refund for products that are not of the agreed quality or according to agreed specifications under standard warranty terms is recognized as a provision.

Accounting policies

Production costs

Production costs cover the cost of goods sold. The cost includes the acquisition price for raw materials, consumables, trading goods, direct labor costs and a portion of indirect production costs comprising costs related to the operation and depreciation of production facilities, as well as operation, administration and management of production plant. Furthermore, cost and depreciation related to the net realized value of defective goods and goods with a long turnover rate.

Research and development costs

Research and development costs include labor cost, amortization and other costs directly or indirectly associated with the company's research and development activities.

Development projects related to new products and processes that are clearly defined and identifiable, while having a high degree of technical utilization, sufficient resources and where a potential future market or development potential within the company can be proved, and where it is the intention to manufacture, market and utilize the project, are recognized as intangible assets if there is sufficient certainty that the capital value of future earnings will cover the production costs, sales and administrative expenses, as well as the development costs.

Development projects that do not comply with the requirements for recognition in the balance sheet are recognized in the income statement as costs are incurred.

Sales and marketing expenses

Sales and marketing expenses include expenses for salaries to sales personnel, advertising and exhibition expenses, depreciations, etc.

Administrative expenses

Administrative expenses include expenses for administrative personnel, IT and management, including office expenses, salaries, depreciation, etc.

Share-based payment

The stock options that the parent company has issued as part of an incentive program are measured at fair value on the granting date. The program is treated as a cash scheme in Chr. Hansen A/S. The value of the granted stock options is subsequently recognized in the income statement of Chr. Hansen A/S over the period in which the employees of Chr. Hansen A/S achieve the right to redeem the stock options.

Accounting policies

Other operating income and expenses

Other operating income and expenses include income and expenses of a secondary nature in relation to the company's main activities, comprising income from administrative or service agreements. Other operating income also includes net gains from the sale of activities.

Dividends from group companies

Dividends from group companies are recognized in the income statement when the investors' right to receive dividend has been approved. Potential write-downs of shares are deducted.

Financial income and expenses

Financial income and expenses include interest income and expenses, amortization income and expenses, and value adjustments of financial assets and transactions in foreign currencies.

Income taxes

Tax for the year, which consists of current tax for the year and changes in deferred tax, is recognized in the income statement by the portion attributable to the profit for the year and recognized directly in equity by the portion attributable to entries directly in equity.

The company is jointly taxed with the parent company Chr. Hansen Holding A/S and former group company Chr. Hansen Natural Colors A/S until 31. March 2021. The current Danish income tax is allocated among the jointly taxed entities proportionally to their taxable income (full allocation with a refund concerning tax losses).

Balance sheet

Intangible assets

Intangible assets are measured at cost with deduction of accumulated amortization and impairments.

Goodwill is amortized over its estimated useful life determined on the basis of management's experience within the individual business areas. The amortization period is set for 10-15 years, due to the acquired company's strategic position in a strong market and long-term earnings profile.

Goodwill is written down to the recoverable amount if this is lower than the carrying value.

Intellectual property rights acquired are measured at cost less accumulated amortization. Patents are amortized over their remaining duration, and licenses are amortized over the term of the agreement, but over not more than 20 years. Intellectual property rights etc. are written down to the lower of the recoverable amount and the carrying amount.

Development projects on clearly defined and identifiable products and processes for which the technical rate of utilization, adequate resources and a potential future market or development opportunity in the company can be established, and where the intention is to manufacture, market or apply the product or process in question, are recognized as intangible assets. Other development costs are recognized as costs in the income statement as incurred. The cost of development projects comprises costs such as salaries and amortization that are directly and indirectly attributable to the development projects.

Accounting policies

Indirect production costs in the form of indirect attributable staff expenses and amortization of intangible assets and depreciation on property, plant and equipment used in the development process are recognized in cost based on time spent on each project.

Completed development projects are amortized on a straight-line basis using the estimated useful lives of the assets. The amortization period for development projects is up to 15 years, defined on the basis of individual assessment of the product life expectancy. Development projects are written down to the lower of recoverable amount and carrying amount.

Capitalized development costs are measured at cost less accumulated amortization and impairment losses or recoverable amount, whichever is lower. An amount corresponding to the recognized development costs is reserved in the item "Reserve for development costs" under equity. The reserve includes only development costs that are recognized in financial years beginning on or after 1 January 2016. The reserve is continuously reduced with depreciation and write-downs on the development projects.

Finished development projects are reviewed at the time of completion and on an annual basis to determine whether there is any indication of impairment. If so, an impairment test is carried out for the individual development projects. For development projects in progress, however, an annual impairment test is always performed. The impairment test is performed on the basis of various factors, including future use of the project, the fair value of the estimated future earnings or savings, interest rates and risks. For development projects in progress, Management estimates on an ongoing basis whether each project is likely to generate future economic benefits for the Group in order to qualify for recognition. The development projects are evaluated based on technical as well as commercial criteria.

Expenses for project work, comprising direct labor costs and a share of indirect costs, are included in the cost of software. The amortization period for software is up to 10 years, defined on the basis of individual assessment of the software life expectancy.

Gains or losses associated with disposal of intangible assets are recognized in the income statement. Borrowing costs in respect to construction of assets are capitalized when it takes more than a year for them to be ready for use

Tangible assets

Tangible assets are measured at cost with deduction of accumulated depreciation and impairment losses. Tangible assets under construction are measured at acquisition value and cost respectively. Cost comprises expenses for materials, direct labor costs and a share of indirect costs.

The basis of depreciation of tangible assets is cost less estimated residual value after the end of the useful life. Straight-line depreciation is made on the basis of the following estimated useful lives of the assets:

Buildings	25-50 years
Plant and machinery	5-20 years
Other fixtures and equipment	3-10 years

Assets with a short useful life or with a value below DKK 50K are expensed in the year of acquisition.

Accounting policies

The book values of intangible and tangible assets are reviewed yearly to determine if there are any indications of value reductions other than that expressed by depreciation. An impairment test is performed if this is the case in order to assess whether the recoverable value is lower than the book value, and the value is written down to the recoverable value.

Leases

Lease assets are "right-of-use-assets", which is a contract or part of a contract that conveys the lessee's right to use an asset for a period of time. The lease asset is initially measured at the present value of future fixed lease payments plus upfront payments and/or other initial direct costs incurred, less any lease incentives received. If, at the inception of the lease, it is reasonably certain that an extension or purchase option will be exercised, future lease payments will be included.

The lease liability is measured using the Company's average incremental borrowing rate.

Lease assets are classified alongside owned assets of similar type under property, plant and equipment. The lease assets are depreciated using the straight-line method over the lease term. Lease assets are tested for impairment in case of indication hereof.

Short-term leases and leases of low value are recognized as expenses in the income statement on a straight-line basis over the lease term. The Company's portfolio of leases covers land, buildings, cars and equipment.

Investments in Group companies

Investments in group companies are measured at cost. The investments are written down to the recoverable amount if this is lower than the carrying value.

Investments in Joint ventures

Investments in Joint ventures are measured at cost. The investments are written down to the recoverable amount if this is lower than the carrying value.

Inventories

Inventories are measured at the lower of cost using the FIFO method and net realizable value.

Comprised in the cost are raw materials, consumables, direct labor costs and a share of indirect production costs, including expenses for operation and depreciation of production facilities, as well as operation, administration and management of production plant.

Obsolete and defective inventories are written down to net realizable value.

Receivables

Receivables are measured at amortized cost, usually equaling nominal value less provisions for bad and doubtful debts. The provisions are based on a specific assessment of the individual receivable.

Prepayments

Prepayments, recognized as assets, comprises among other things, insurance payments, subscriptions and licenses. Prepayments is measured at amortized cost.

Other provisions

Other provisions are recognized in the balance sheet when it is probable, as a result of prior events that a contractual or actual liability has arisen which will probably draw on the economic resources of the company. Other provisions are measured at net realizable value.

Accounting policies

Financial liabilities

Fixed-rate loans, comprising mortgage loans and bank loans, are measured at cost which corresponds to the proceeds received less transaction costs incurred. In subsequent periods, the loan is measured at amortized cost. This means that the difference between the proceeds at the time of the borrowing and the nominal repayable amount of the loan is recognized in the income statement as financial expenses over the term of the loan.

Fixed-rate loans, comprising mortgage loans and bank loans, are measured at cost which corresponds to the proceeds received less transaction costs incurred. In subsequent periods, the loan is measured at amortized cost. This means that the difference between the proceeds at the time of the borrowing and the nominal repayable amount of the loan is recognized in the income statement as financial expenses over the term of the loan.

Other liabilities are measured at amortized cost, which usually corresponds to nominal value.

Deferred tax

Deferred tax is recognized on all temporary differences between the carrying amount and the tax base of assets and liabilities. Deferred tax is measured based on current tax legislation and rates applying at the balance date. Where the measurement of the tax base can be conducted in accordance with alternative tax legislation, deferred tax is measured based on the planned life of the asset or liability.

Deferred tax assets, including the tax base of losses that may be carried forward, are measured at the value at which the asset is expected to be realized, either by settlement as tax or deducted in deferred tax liabilities.

Deferred tax assets and liabilities are offset within the same legal tax entity.

Financial highlights

$$\text{Gross margin} = \frac{\text{Gross profit} \times 100}{\text{Revenue}}$$

$$\text{Operating margin} = \frac{\text{Operating profit} \times 100}{\text{Revenue}}$$

$$\text{Return on invested capital} = \frac{\text{Operating profit} \times 100}{\text{Total assets}}$$

$$\text{Equity ratio} = \frac{\text{Equity end of year} \times 100}{\text{Total assets}}$$

$$\text{Return on equity} = \frac{\text{Net profit} \times 100}{\text{Equity end of year}}$$

Notes to the income statement

Amounts in DKK '000

	2020/21 DKK	2019/20 DKK
2 Revenue		
Revenue by geographical allocation		
Denmark	61.092	133.187
Europe (excl. Denmark)	2.434.795	2.345.082
North America	1.238.737	1.225.262
Other markets	1.676.797	1.647.668
	<u>5.411.421</u>	<u>5.351.199</u>

The geographical segmentation is based on customer location.

3 Production, research and development costs, sales, marketing and administrative expenses as well as other operating income and other operating expenses.

Staff expenses

Production, research and development costs, sales and marketing, administrative expenses and other operating income and expenses include wages and salaries etc, which are distributed as follows:

Wages and salaries etc	975.869	908.120
Transferred capitalization	(175.058)	(173.392)
Pensions	94.490	88.563
Expenses for social security	12.772	10.099
Other employee expenses	15.701	17.244
	<u>923.773</u>	<u>850.634</u>
Fees to the Management*	5.107	5.183
Total staff expenses	<u>928.880</u>	<u>855.817</u>
Average number of full-time employees	<u>1.528</u>	<u>1.464</u>
Number of employees at year end	<u>1.551</u>	<u>1.484</u>

* Salary to members of the executive board is presented as the full salary paid by Chr. Hansen Holding A/S related to the executive board members employment in Chr. Hansen Holding A/S and Chr. Hansen A/S.

Incentive program

The short-term restricted stock unit (RSU) programs are granted to members of the Executive Board and other key employees based on the fulfillment of individual key performance indicators. The RSUs are granted as shares and vest up to a three-year period subject to the person still being employed with Chr. Hansen A/S.

Long-term matching share programs are granted to members of the Executive Board and certain key employees. Under the program, the participants are required to acquire a number of existing shares in Chr. Hansen Holding A/S and retain ownership of such shares for a predefined holding period of three years. Upon expiration of the holding period and subject to the fulfillment of certain predefined performance targets and continued employment at the vesting date, the participants will be entitled to receive up to 7.5 additional shares in Chr. Hansen Holding A/S (matching shares) per investment share for no consideration.

Notes to the income statement

Amounts in DKK '000

	<u>2020/21</u> DKK	<u>2019/20</u> DKK
3 Production, research and development costs, sales, marketing and administrative expenses as well as other operating income and other operating expenses, continued		
Other operating income and expenses		
Other operating income and expenses primarily consist of management fee to the parent company		
Depreciation, amortization and impairment/writedowns		
Depreciation, amortization and impairments/writedowns are included in production expenses, research and development costs, sales, marketing and administrative expenses and are distributed as follows:		
Production costs	164.845	144.438
Research and development costs	98.327 *	112.775
Sales and marketing expenses	531.950	186.335
Administrative expenses	<u>37.352</u>	<u>22.788</u>
	<u>832.474</u>	<u>466.336</u>

* The impairment of development projects amounting to TDKK 14.535 is included in the amount.
See note 7 for further information

Notes to the income statement

Amounts in DKK '000

	2020/21 DKK	2019/20 DKK
4 Financial income and expenses		
Interest income and other financial income:		
Interest income from Group companies	961	1.643
Interest income and other financial gains	129.138	53.927
Total financial income	<u>130.099</u>	<u>55.571</u>
Interest expenses and other financial expenses:		
Interest expenses to Group companies	4.789	2.718
Interest expenses and other financial losses	159.537	215.765
Total financial expenses	<u>164.326</u>	<u>218.483</u>
5 Income taxes		
Income taxes are distributed as follows:		
Current tax on operating profit	85.330	(36.937)
Change in deferred tax concerning operating profit	118.875	397.176
Other taxes	104	2.170
Changes in deferred tax previous years	(23.097)	(1.474)
Changes in income tax previous years	7.142	11.669
Total income taxes	<u>188.354</u>	<u>372.605</u>

The company is jointly taxed with the other Danish companies in the Group, Chr. Holding A/S, and the companies are jointly liable for the joint taxes.

6 Distribution of result

Proposed dividend for the year	1.000.000	1.000.000
Reserve for development projects	22.314	47.331
Net profit for the year	<u>(209.593)</u>	<u>105.739</u>
	<u>812.722</u>	<u>1.153.070</u>

Notes to the balance sheet

Amounts in DKK '000

7 Intangible assets

	Patents, trade- marks, intell- ectual property	Development projects	Software	Intangible assets in progress	Goodwill	Total intangi- ble assets
Cost at September 1, 2020	1.270.673	563.237	397.761	389.417	4.695.112	7.316.201
Transferred	-	55.969	30.009	(84.158)	-	1.820
Additions for the year	9.871	3.246	10.464	127.270	-	150.851
Disposals for the year	-	(22.753)	(14.791)	-	-	(37.544)
Cost at August 31, 2021	1.280.543	599.699	423.443	432.530	4.695.112	7.431.329
Amortization and impairment losses at September 1, 2020	254.525	321.326	278.823	-	378.628	1.233.301
Amortization and impairment for the year	90.348	51.199	41.461	-	430.648	613.656
Amortization disposals for the year	-	(8.218)	(14.791)	-	-	(23.009)
Amortization and impairment losses at August 31, 2021	344.873	364.306	305.492	-	809.277	1.823.948
Carrying amount at August 31, 2021	935.670	235.392	117.950	432.530	3.885.836	5.607.378
Interest included in the above assets	-	-	-	269	-	269

Development projects relates to design, construction and testing of existing production within new strains for cultures and enzymes, and health & nutrition. The projects are being carried out based on demand from existing customers, and varies in time for finalization. The projects are performed based on the resources, management has allocated hereto. It is expected that the products have a technical and commercial likelihood at the present marked and to existing customers.

8 Tangible assets

	Land and buildings	Plant and machinery	Other fixtures and equipment	Prepaid assets under construction	Total tangible assets
Cost at September 1, 2020	1.481.927	1.844.744	346.850	1.038.871	4.712.392
Transferred	17.983	40.930	52.625	(113.358)	(1.820)
Additions for the year	330.097	8.039	24.600	406.938	769.674
Disposals for the year	(49.839)	(28.548)	(11.246)	-	(89.633)
Cost at August 31, 2021	1.780.168	1.865.165	412.829	1.332.451	5.390.613
Depreciation and impairment losses at September 1, 2020	307.498	944.537	173.559	-	1.425.594
Transferred	-	-	-	-	-
Depreciation and impairment losses for the year	60.081	109.901	48.835	-	218.817
Depreciation of disposals for the year	(2.064)	(14.692)	(9.599)	-	(26.355)
Depreciation and impairment losses at August 31, 2021	365.515	1.039.746	212.795	-	1.618.056
Carrying amount at August 31, 2021	1.414.653	825.419	200.034	1.332.451	3.772.557
Hereof Leased assets	563.802	247	8.876	-	572.925
Interest included the above assets	-	-	-	950	950

The carrying amount of building and machinery, TDKK 1.548.643 have been pledged as security for mortgage loans of TDKK 516.440.

Notes to the balance sheet

Amounts in DKK '000

	2020/21 DKK	2019/20 DKK
9 Investments in Group companies		
Cost at September 1, 2020	436.902	568.484
Additions for the year	-	42.975
Write-downs	-	(80.000)
Disposals for the year	-	(94.557)
Cost at August 31, 2021	<u>436.902</u>	<u>436.902</u>

Group companies	Capital share	Country	Currency	Nominal capital	Equity	Net profit for the year
Chr. Hansen France SA	100%	France	EUR	11.100	59.353	4.987
Chr. Hansen (Tianjin) Food						
Ingredients CO. Ltd	100%	China	CNY	8.000	27.841	-529
Chr. Hansen India Pvt. Ltd.	100%	India	INR	24.992	335.712	42.289
Peyma Chr. Hansen Turkey	50%	Turkey	TRY	988	93.607	21.257
Chr Hansen Romania	100%	Romania	RON	4	78.661	1.670
Halley	99%	Germany	EUR	25	244.478	6.057
Chr. Hansen Malaysia SDN. BHD.	50%	Malaysia	MYR	1.000	52.955	11.501
Chr. Hansen Colombia	46%	Colombia	COP	3.887	4.566	-331
Chr Hansen Middle East and Africa	80%	United Arab Emirates	AED	500	33.816	5.685

10 Investments in Joint Ventures

Cost at September 1, 2020	94.557	-
Additions for the year	56.342	94.557
Disposals for the year	-	-
Cost at August 31, 2021	<u>150.899</u>	<u>94.557</u>

Joint Ventures	Capital share	Country	Currency	Nominal capital	Equity	Net loss for the year
BacThera	50%	Denmark	CHF	11.000	7.668	14.393

Notes to the balance sheet

Amounts in DKK '000	<u>2021</u> DKK	<u>2020</u> DKK
11 Deferred tax		
Deferred tax in the balance sheet relates to:		
Intangible and tangible assets	853.283	896.229
Current assets	40.483	42.140
Other assets, deferred commitments and liabilities	175.607	172.194
Carry-forward tax loss	(56.080)	(193.048)
Carrying amount at August 31, 2021	<u>1.013.293</u>	<u>917.515</u>
Deferred tax has been recognized at 22%.		
12 Non-current liabilities		
Due after 5 years		
Lease liabilities	405.397	389.669
Mortgage debt	433.100	466.540
	<u>838.497</u>	<u>856.209</u>
Due within 1 - 5 years		
Lease liabilities	131.208	138.006
Mortgage debt	76.182	46.190
Tax payables	85.330	-
	<u>292.720</u>	<u>184.196</u>
Long-term loans	<u>1.131.217</u>	<u>1.040.405</u>

The average interest rate on mortgage loans is 0,4% p.a.

Notes to the balance sheet

13 Related parties

Related parties are defined as parties with control or significant influence over Chr. Hansen A/S and all transactions are made on market terms:

Chr. Hansen Holding A/S
Bøge Allé 10 - 12
DK-2970 Hørsholm

Chr. Hansen Holding A/S is holding 100% of the votes in the company.

14 Accounting relations

The annual report of Chr. Hansen A/S is included in the consolidated financial statements of Chr. Hansen Holding A/S, Hørsholm, which is the immediate and ultimate parent company.

The consolidated financial statements can be obtained by request to Chr. Hansen Holding A/S Bøge Allé 10 -12 DK-2970 Hørsholm.

15 Contingent liabilities

In 2018/19, Chr. Hansen A/S entered into lease agreements related to the renovation of the headquarter in Hørsholm. The project is expected to be finalized in 2023. The contract amounting to DKK 577 mDKK (undiscounted) are not commenced, and consequently not accounted for in the lease liabilities.

Chr. Hansen A/S is jointly taxed with other companies in the Chr. Hansen Group. Chr. Hansen A/S is jointly and unlimited liable for the Danish income taxes together with the other jointly taxed companies, and for withholding taxes on dividends, interest and royalties related to the jointly taxed companies. Chr. Hansen A/S is part of a VAT group with other companies in the Chr. Hansen Group. Chr. Hansen A/S is jointly and severally liable together with the other companies in the VAT group for any Danish VAT.

Chr. Hansen A/S has provided security for associated companies in the Chr. Hansen Group. The security is limited to USD 5 million.

The carrying amount of building and machinery, TDKK 1.548.643 have been pledged as security for mortgage loans of TDKK 516.440.

16 Events after the balance sheet date

No events have occurred after the reporting date of importance to the financial statements.