



Accounts and performance

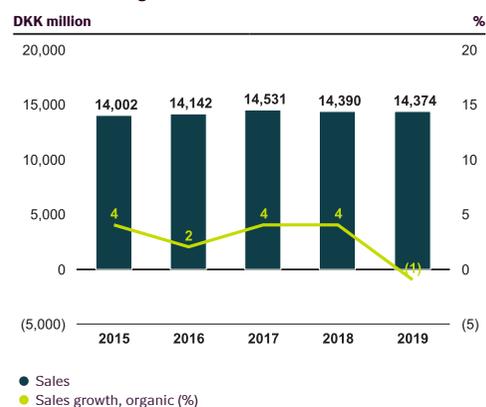
Sales and earnings

Sales

Total sales in 2019 were DKK 14,374 million, a decline of 1% organically and flat in DKK.

“Overall unsatisfactory sales growth in 2019 mainly due to challenging agricultural markets.”

Sales and sales growth



Gross profit and margin

Gross profit decreased by 4% to DKK 7,954 million from DKK 8,255 million in 2018. The gross margin was 55.3%, down from 57.4% in 2018. The decrease was mainly due to lower organic sales growth, lower deferred income as well as one-off restructuring costs related to the updated strategy.

Operating costs

Operating costs increased by 5% to DKK 4,435 million. Operating costs as a percentage of sales were 31%.

- Sales and distribution costs increased by 4%, accounting for 11.3% of sales
- Research and development costs increased by 5%, accounting for 13.7% of sales
- Administrative costs increased by 6%, accounting for 5.8% of sales

Restructuring costs were the main reason for the increase in operating costs in 2019.

Other operating income

Other operating income was a net income of DKK 520 million, compared with DKK 43 million in 2018. The increase in 2019 was caused by a net gain of DKK 300 million relating to the termination of The BioAg Alliance in April 2019, and a net gain of DKK 194 million relating to the divestment of the pharma-related royalty.

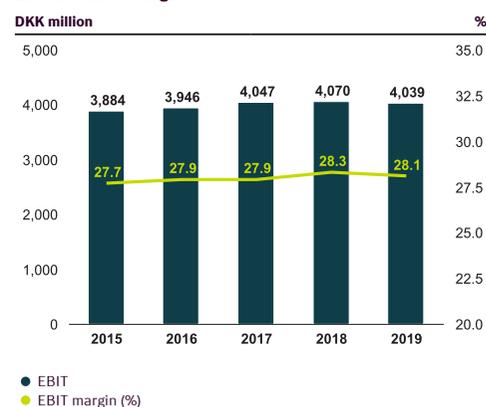
EBITDA

EBITDA increased by 3% to DKK 5,292 million, up from DKK 5,158 million in 2018. Depreciation, amortization and impairment losses were DKK 1,182 million in 2019, up 9% from DKK 1,088 million in 2018. The implementation of IFRS 16 has resulted in recognition of depreciation charges related to lease assets of DKK 124 million.

EBIT and EBIT margin

EBIT decreased by 1% to DKK 4,039 million, down from DKK 4,070 million in 2018. The EBIT margin ended at 28.1%, down from 28.3% in 2018. Excluding the one-off restructuring costs related to the updated strategy, the net gain from the termination of The BioAg Alliance and from the divestment of the pharma-related royalty, the underlying EBIT margin in 2019 was ~26%.

EBIT and EBIT margin



Net finance

Net financial costs were DKK 235 million in 2019, compared with DKK 117 million in 2018. In 2019, Novozymes realized a DKK 205 million currency hedging/revaluation net loss, compared with a net loss of DKK 89 million in 2018.

Tax

The effective tax rate was 17%, down from 18% in 2018, due to a positive impact from reduced uncertain tax positions related to bilateral advance pricing agreements (APAs).

Net profit

Net profit declined by 2% to DKK 3,155 million in 2019, down from DKK 3,227 million in 2018.

Earnings per share (diluted)

Earnings per share (diluted) were DKK 11.01, compared with DKK 11.03 in 2018.

[Read more about the Novozymes stock in The Novozymes stock](#)

Consolidated statements of income

Income statement

DKK million	Note	2019	2018
Revenue	2.1, 2.2	14,374	14,390
Cost of goods sold	2.3, 3.1, 3.2, 4.1	(6,420)	(6,135)
Gross profit		7,954	8,255
Sales and distribution costs	2.3, 3.1, 3.2	(1,631)	(1,571)
Research and development costs	2.3, 2.4, 3.1, 3.2	(1,966)	(1,865)
Administrative costs	2.3, 3.1, 3.2	(838)	(792)
Other operating income, net	2.5	520	43
Operating profit / EBIT		4,039	4,070
Share of result in associates		(5)	(17)
Financial income	5.2	112	47
Financial costs	5.2	(347)	(164)
Profit before tax		3,799	3,936
Tax	2.6	(644)	(709)
Net profit		3,155	3,227
Attributable to			
Shareholders in Novozymes A/S		3,154	3,226
Non-controlling interests		1	1
		3,155	3,227
Proposed dividend per share		DKK 5.25	DKK 5.00
Earnings per share	2.7	DKK 11.06	DKK 11.11
Earnings per share, diluted	2.7	DKK 11.01	DKK 11.03

Statement of comprehensive income

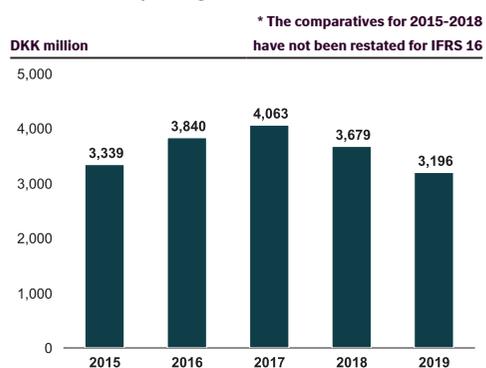
DKK million	Note	2019	2018
Net profit		3,155	3,227
Items that may subsequently be reclassified to the income statement:			
Currency translation adjustments			
Subsidiaries and non-controlling interests		143	181
Tax on currency translation adjustments		(1)	(5)
Currency translation adjustments		142	176
Cash flow hedges			
Fair value adjustments		(107)	(133)
Tax on fair value adjustments		24	29
Cash flow hedges reclassified to financial costs	5.2	164	42
Tax on reclassified fair value adjustments		(36)	(9)
Cash flow hedges		45	(71)
Other comprehensive income		187	105
Comprehensive income		3,342	3,332
Attributable to			
Shareholders in Novozymes A/S		3,342	3,331
Non-controlling interests		-	1
		3,342	3,332

Cash flow

Cash flow from operating activities

The cash flow from operating activities was DKK 3,196 million, down from DKK 3,679 million in 2018, a decrease of DKK 483 million. The negative development was mainly driven by an increase in corporate taxes paid and lower operating profits when excluding non-cash elements in other operating income, partly offset by repayment of lease liabilities now recognized under financing activities due to the implementation of IFRS 16.

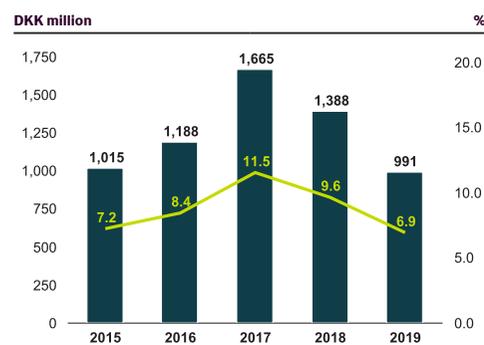
Cash flow from operating activities



Net investments

Net investments excluding acquisitions were DKK 991 million, down from DKK 1,388 million in 2018. Net investments in property, plant and equipment amounted to DKK 856 million, compared with DKK 1,328 million in 2018. The level was lower compared with 2018 as the investments in the Innovation Campus in Lyngby as well as in the production facilities in India and the US were to a large extent finalized in 2018.

Net investments



- Net investments
- Net investments (% of sales)

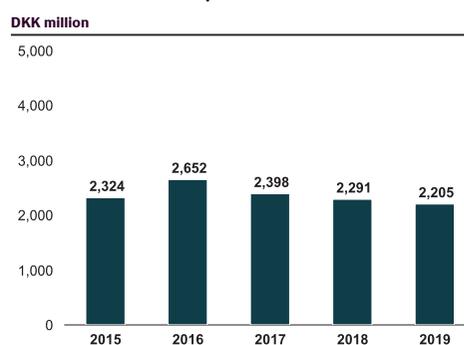
Free cash flow before acquisitions and divestments

The free cash flow before acquisitions and divestments amounted to DKK 2,205 million, compared with DKK 2,291 million in 2018. The decrease of 4% was mainly due to the lower cash flow from operations partly offset by lower net investments.

Free cash flow

The free cash flow was DKK 2,635 million in 2019, compared with DKK 2,287 million in 2018. Free cash flow was positively impacted by the divestment of the pharma-related royalty.

Free cash flow before acquisitions



Financing activities

The cash flow from financing activities was negative at DKK 2,644 million, compared with a negative cash flow of DKK 2,167 million in 2018. The negative cash flow from financing activities was mainly due to the 2019 stock buyback program (DKK 2,000 million) and dividend payments (DKK 1,439 million).

Cash position

Cash and cash equivalents at December 31, 2019, amounted to DKK 711 million, down from DKK 723 million at December 31, 2018. Undrawn committed credit facilities were DKK 3,758 million at December 31, 2019.

Consolidated statement of cash flows

DKK million	Note	2019	2018	DKK million	Note	2019	2018
Net profit		3,155	3,227	Financing			
Reversal of non-cash items	6.6	1,321	2,062	Borrowings		2,003	2,093
Income tax paid	2.6	(1,116)	(761)	Repayment of borrowings		(1,175)	(1,115)
Interest received		64	9	Repayment of lease liabilities		(108)	-
Interest paid		(88)	(11)	Shareholders:			
Cash flow before change in working capital		3,336	4,526	Purchase of treasury stock		(2,000)	(2,000)
Change in working capital				Sale of treasury stock		75	172
(Increase)/decrease in receivables		(238)	(361)	Dividend paid		(1,439)	(1,317)
(Increase)/decrease in inventories		218	(234)	Cash flow from financing activities		(2,644)	(2,167)
Increase/(decrease) in payables, deferred income and contract liabilities		(124)	(265)	Net cash flow		(9)	120
Currency translation adjustments		4	13	Unrealized gain/(loss) on currencies and financial assets included in cash and cash equivalents		(3)	(29)
Cash flow from operating activities		3,196	3,679	Net change in cash and cash equivalents		(12)	91
Investments				Cash and cash equivalents at January 1		723	632
Purchase of intangible assets	6.6	(135)	(60)	Cash and cash equivalents at December 31		711	723
Purchase of property, plant and equipment	6.6	(862)	(1,332)				
Sale of property, plant and equipment		6	4				
Business acquisitions, divestments and purchase of financial assets	6.6	430	(4)				
Cash flow from investing activities		(561)	(1,392)				
Free cash flow		2,635	2,287				

Balance sheet and financial position

Total assets

Total assets increased from DKK 19,697 million at December 31, 2018, to DKK 20,437 million at December 31, 2019. The increase were mainly driven by the implementation of IFRS 16, and an increase in net working capital.

ROIC

Return on invested capital (ROIC), including goodwill, was 21.1%, down 3.1 percentage points from 24.2% in 2018. The decrease was mainly a result of higher net invested capital. ROIC was impacted negatively by 0.8 percentage point from the implementation of IFRS 16.

Invested capital

Invested capital increased from DKK 13,953 million in 2018 to DKK 15,507 million in 2019. This was a result of higher net working capital and the implementation of IFRS 16.

Net working capital

Novozymes' net working capital increased to DKK 3,478 million, up from DKK 2,768 million in 2018, due to higher trade receivables, lower trade payables and a reduction of contract liabilities related to The BioAg Alliance termination, partly offset by lower inventories.

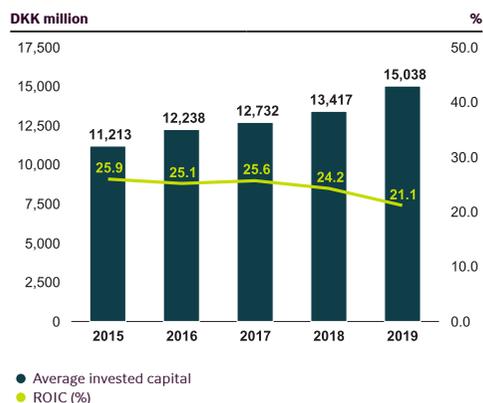
Net interest-bearing debt

Novozymes had net interest-bearing debt of DKK 4,049 million at December 31, 2019, compared with DKK 2,535 million at December 31, 2018. Net interest-bearing debt was impacted by cash outflows from dividend payments of DKK 1,439 million and stock buybacks of DKK 2,000 million, which exceeded cash inflows from operating activities and net borrowings. Furthermore, net interest-bearing debt was impacted by DKK 616 million from the implementation of IFRS 16.

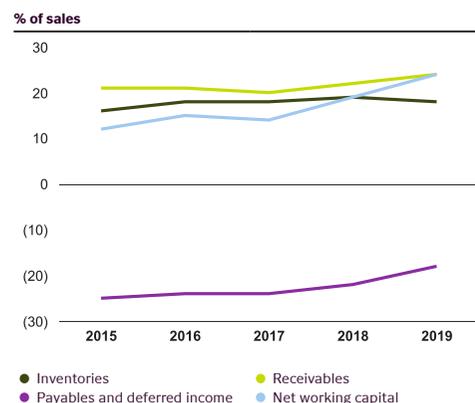
Net interest-bearing debt-to-EBITDA

Net interest-bearing debt-to-EBITDA was 0.8x at December 31, 2019, compared with 0.5x at December 31, 2018. The increase was impacted by 0.1 percentage points from the implementation of IFRS 16.

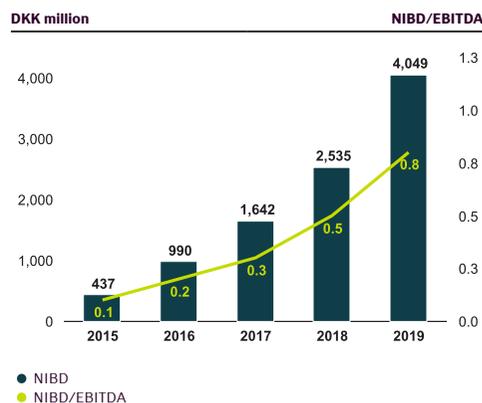
ROIC and average invested capital



Net working capital



Net interest-bearing debt (NIBD) and net interest-bearing debt-to-EBITDA



Consolidated balance sheet

Assets

DKK million	Note	Dec. 31, 2019	Dec. 31, 2018
Intangible assets	3.1	1,926	2,130
Land and buildings	3.2	4,056	2,779
Plant and machinery	3.2	4,501	4,452
Other equipment	3.2	993	619
Assets under construction and prepayments	3.2	662	1,848
Deferred tax assets	2.6	1,161	938
Other financial assets		22	20
Investments in associates		37	42
Other receivables	4.3	29	34
Non-current assets		13,387	12,862
Inventories	4.1	2,613	2,820
Trade receivables	4.2	2,864	2,606
Contract assets	4.2	243	279
Tax receivables	2.6	273	174
Other receivables	4.3	269	219
Other financial assets		15	14
Cash and cash equivalents		711	723
		6,988	6,835
Assets held for sale	4.6	62	-
Current assets		7,050	6,835
Assets		20,437	19,697

Liabilities and shareholders' equity

DKK million	Note	Dec. 31, 2019	Dec. 31, 2018
Common stock	5.5	582	594
Currency translation adjustments		57	(86)
Cash flow hedges		19	(26)
Retained earnings		10,810	10,943
Equity attributable to shareholders in Novozymes A/S		11,468	11,425
Non-controlling interests		12	13
Shareholders' equity		11,480	11,438
Deferred tax liabilities	2.6	879	892
Provisions	3.4	115	132
Contract liabilities	4.4	-	199
Lease liabilities		453	-
Other financial liabilities	5.3	2,775	1,474
Other liabilities	4.5	-	37
Non-current liabilities		4,222	2,734
Lease liabilities		163	-
Provisions	3.4	128	97
Other financial liabilities	5.3	1,411	1,899
Trade payables		1,117	1,418
Contract liabilities	4.4	74	175
Tax payables	2.6	431	575
Other liabilities	4.5	1,411	1,361
Current liabilities		4,735	5,525
Liabilities		8,957	8,259
Liabilities and shareholders' equity		20,437	19,697

Equity and shareholder return

Shareholders' equity

At December 31, 2019, shareholders' equity was DKK 11,480 million, up from DKK 11,438 million at December 31, 2018, as dividend payments and net stock buybacks almost equaled comprehensive income in 2019.

Equity ratio

Shareholders' equity represented 56% of the balance sheet total at December 31, 2019, down from 58% at December 31, 2018, driven by the increase in total assets related to the implementation of IFRS 16.

Return on equity

Return on equity was 27.5%, down 0.9 percentage points from 28.4% in 2018. The decrease was a result of lower net profit.

Treasury stock

At December 31, 2019, the holding of treasury stock was 9.7 million B shares, equivalent to 3.3% of the common stock.

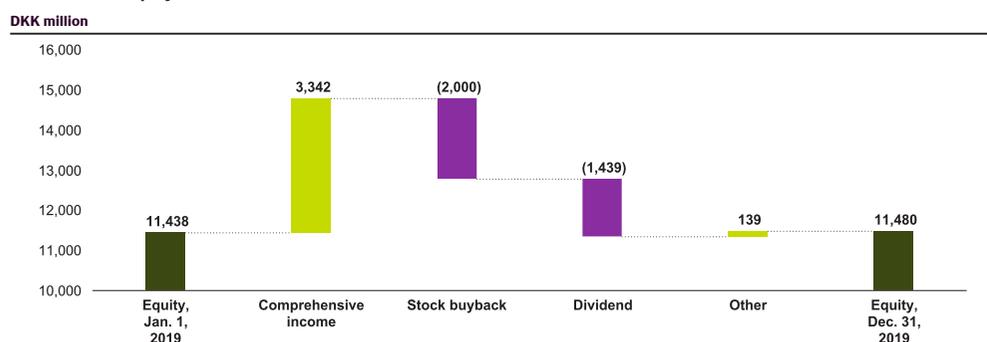
Dividend

The Board of Directors proposes that the Annual Shareholders' Meeting approve a dividend of DKK 5.25 per share for the 2019 financial year, corresponding to an increase of 5% compared with 2018. This will result in an expected total dividend payment of approximately DKK 1,478 million, corresponding to a payout ratio of 46.8%.

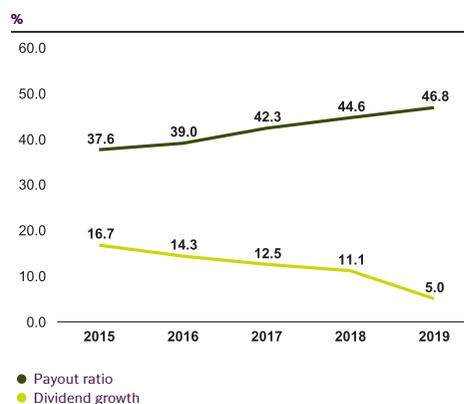
Stock buyback program

In 2019, Novozymes bought back 6.6 million B shares at an aggregate transaction value of DKK 2,000 million under the stock buyback program initiated on April 25, 2019, and completed on November 18, 2019. The shares acquired under the program will be used to reduce the common stock and to meet obligations arising from employee stock-based incentive programs.

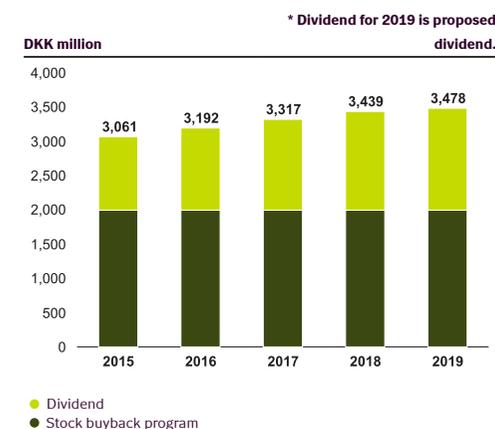
Movements in equity 2019



Payout ratio and dividend growth



Shareholder return



[Read more about the Novozymes stock in The Novozymes stock](#)

Consolidated statement of shareholders' equity

DKK million	Attributable to shareholders in Novozymes A/S						Non-controlling interests	Total equity
	Common stock	Currency translation adjustments	Cash flow hedges	Retained earnings	Total			
Shareholders' equity at January 1, 2019	594	(86)	(26)	10,943	11,425	13	11,438	
Net profit for the year				3,154	3,154	1	3,155	
Other comprehensive income for the year		143	45		188	(1)	187	
Total comprehensive income for the year		143	45	3,154	3,342	-	3,342	
Purchase of treasury stock				(2,000)	(2,000)		(2,000)	
Sale of treasury stock				75	75		75	
Write-down of common stock	(12)			12	-		-	
Dividend				(1,438)	(1,438)	(1)	(1,439)	
Stock-based payment				45	45		45	
Tax related to equity items				19	19		19	
Changes in shareholders' equity	(12)	143	45	(133)	43	(1)	42	
Shareholders' equity at December 31, 2019	582	57	19	10,810	11,468	12	11,480	
Shareholders' equity at January 1, 2018	610	(262)	45	10,861	11,254	13	11,267	
Net profit for the year				3,226	3,226	1	3,227	
Other comprehensive income for the year		176	(71)		105	-	105	
Total comprehensive income for the year		176	(71)	3,226	3,331	1	3,332	
Purchase of treasury stock				(2,000)	(2,000)		(2,000)	
Sale of treasury stock				172	172		172	
Write-down of common stock	(16)			16	-		-	
Dividend				(1,316)	(1,316)	(1)	(1,317)	
Stock-based payment				97	97		97	
Tax related to equity items				(113)	(113)		(113)	
Changes in shareholders' equity	(16)	176	(71)	82	171	-	171	
Shareholders' equity at December 31, 2018	594	(86)	(26)	10,943	11,425	13	11,438	

The proposed dividend of approximately DKK 1,478 million for 2019 is included in Retained earnings.

Environmental performance

Operational efficiency

Novozymes strives to decouple environmental impact from business growth, and aims to define targets and metrics that measure and drive our sustainability performance.

In 2018 we introduced new annual targets for energy and water consumption and CO₂ emissions, aiming to keep growth in resource consumption and CO₂ emissions lower than our organic sales growth. In 2019, we managed to reduce water consumption by 4%, energy consumption by 5% and CO₂ emissions by 24% compared with 2018.

Climate change

Novozymes' total CO₂ emissions were 365,000 tons in 2019, a decrease from 472,000 tons in 2018. Our target measures the increase in part of the total CO₂ emissions (scope 1+2 only), which decreased by 24% from 437,000 tons in 2018 to 330,000 tons in 2019.

Energy

In 2019, Novozymes' energy consumption was 4,574,000 GJ, a decrease of 5% compared with 2018.

Renewable sources accounted for 30% of the energy consumption in 2019, up from 23% in 2018. In 2019, Novozymes started procuring renewable electricity for our production site in Tianjin, China. In addition all our electricity in Denmark and Brazil comes from offshore windfarms and hydropower.

Energy by source 2019 (2018)



- Electricity - conventional **29%** (38%)
- Electricity - renewable **29%** (22%)
- Steam **21%** (21%)
- Fuels - conventional **15%** (14%)
- Heat - conventional **4%** (4%)
- Fuel and heat - renewable **2%** (1%)

Water

In 2019, Novozymes' water consumption decreased by 4% from 8,205,000 m³ in 2018 to 7,845,000 m³.

The total volume of wastewater generated in 2019 decreased by 3%.

In 2019, Novozymes implemented a reverse osmosis system at one of our plants in China, which purifies our process water and enables reuse in our cooling towers.

Waste

Novozymes recovered 97% of biomass generated in 2019 from landfill, on par with 2018.

For solid waste, the rate of recycling across our global production sites increased to 52%, compared with 44% in 2018.

Environmental compliance

The number of breaches of regulatory limits recorded worldwide decreased to 17 in 2019 from 27 in 2018. Most of these breaches related to wastewater treatment. Novozymes is addressing these incidents. In addition, we received seven neighbor complaints in 2019, compared with 11 in 2018, mostly related to air pollution and waste management.

Consolidated environmental data

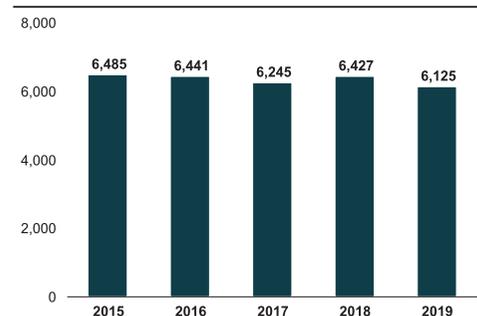
	Note		2019	2018
Climate change				
Greenhouse gas emissions	7.1	1,000 tons CO ₂ -eqv.	365	472
Energy				
Energy consumption	7.2	1,000 GJ	4,574	4,831
Renewable energy	7.2	%	30	23
Water				
Water consumption	7.3	1,000 m ³	7,845	8,205
Volume of wastewater	7.3	1,000 m ³	6,147	6,306
Waste				
Solid waste	7.4	1,000 tons	13	14
Recycling rate for solid and hazardous waste	7.4	%	52	44
Biomass volume	7.4	1,000 tons	513	509
Recycling rate for biomass	7.4	%	97	97
Environmental compliance, etc.				
Breaches of regulatory limits	7.5	No.	17	27
Neighbor complaints	7.5	No.	7	11
References to notes without data				
Bioethics & biodiversity	7.6		n.a.	n.a.
Product stewardship	7.7		n.a.	n.a.

Social and governance performance

Labor practices & human rights

At December 31, 2019, the total number of employees was 6,125, compared with 6,427 in 2018. The decrease is a consequence of the organizational change announced in August 2019, when around 300 employees were laid off globally across the organization.

Number of employees



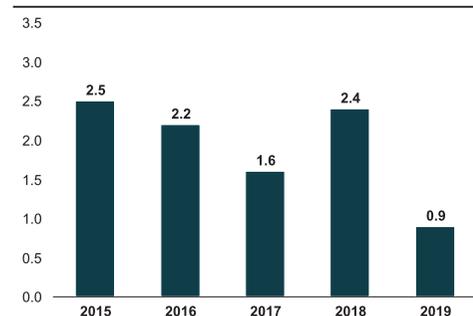
The employee absence rate was 1.9% compared with 2.1% in 2018.

Novozymes promotes equal opportunities and strengthens diversity in the global workplace. At December 31, 2019, 31% of senior management (directors and higher) were women, up from 30% in 2018.

Occupational health & safety

As a consequence of our continuous focus on building awareness and keeping employees safe and healthy, the frequency of occupational accidents fell to an alltime low 0.9 per million working hours in 2019, compared with 2.4 in 2018.

Frequency of accidents (per million working hours)



Innovation

Novozymes is committed to delivering bioinnovation and launched nine new products in 2019.

In 2019, Novozymes had 951 active patent families, which comprise the number of inventions that have active patent applications or active patents. The number of active patent families has been reduced from 1,041 in 2018, as we have abandoned patent families that are no longer needed, in order to free up resources for focusing on the updated strategy Better business with biology. See more details about our new products in 'This is Novozymes'.

Business ethics

In 2019, Novozymes reinforced its business integrity principle commitment. 99% of Novozymes' employees in scope completed business integrity training in 2019, on par with 2018.

As in 2018, there were no breaches of competition law in 2019.

The number of investigated fraud cases increased to 42 in 2019, compared with 34 in 2018. None of the investigated fraud cases had a material financial impact.

Community engagement

In 2019, Novozymes engaged approximately 329,000 learners, compared with approximately 302,000 in 2018. The increase was due to expansion of our 2018 projects across regions and addition of new projects.

Customer engagement

Novozymes conducts an annual customer satisfaction survey and tracks progress on its Net Promoter Score (NPS), which is assessed on a scale from -100 to +100. In 2019, we received an NPS of +54, compared with +50 in 2018, which confirms our solid relationships with our customers.

Consolidated social and governance data

	Note		2019	2018
Labor practices & human rights				
Employees, total	2.3	No.	6,125	6,427
Women	2.3	%	37.6	37.7
Rate of absence	8.1	%	1.9	2.1
Women in senior management	8.1	%	31	30
Occupational health & safety				
Fatalities		No.	-	-
Frequency of occupational accidents	8.2	Per million working hours	0.9	2.4
Frequency of occupational diseases	8.2	Per million working hours	0.1	0.4
Innovation				
New products	2.4	No.	9	8
Active patent families	2.4	No.	951	1,041
Business ethics				
Completion of business integrity training for employees in scope	8.3	%	99	99
Breaches of competition law	8.3	No.	-	-
Investigated fraud cases	8.3	No.	42	34
Community engagement				
Estimated number of learners reached	8.4	No.	329,000	302,000
Customer engagement				
Customer satisfaction, Net Promoter Score (NPS)	8.5	No.	54	50
Reference to notes without data				
Responsible sourcing	8.6		n.a.	n.a.

Notes

Basis of reporting

- 1.1** Significant changes and events
- 1.2** Basis of reporting

Net operating profit after tax

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- 2.4** Research and development costs
- 2.5** Other operating income, net
- 2.6** Tax
- 2.7** Earnings per share

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- 3.2** Property, plant and equipment
- 3.3** Leases
- 3.4** Provisions

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- 4.6** Assets held for sale

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- 5.2** Financial income and Financial costs
- 5.3** Other financial liabilities
- 5.4** Derivatives – hedge accounting
- 5.5** Common stock and treasury stock
- 5.6** Financial assets and liabilities by category

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- 6.2** Stock-based payment
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- 6.4** Related party transactions

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- 7.5** Environmental compliance, etc.
- 7.6** Bioethics & biodiversity
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- 8.2** Occupational health & safety
- 8.3** Business ethics
- 8.4** Community engagement
- 8.5** Customer engagement
- 8.6** Responsible sourcing

Basis of reporting

1.1 Significant changes and events



Implementation of IFRS 16 Leases

Novozymes implemented IFRS 16 on leases as of January 1, 2019. The standard has a significant impact on the balance sheet, as leases are recognized in the balance sheet as lease assets and lease liabilities.

In the income statement, the lease cost is replaced by depreciation of the leased asset and an interest expense for the financial liability, but the impact is insignificant. ROIC is impacted negatively, while free cash flow is impacted positively.

The impact on the Group's consolidated financial statements is described in Note 1.2 under Impact of new accounting standards.

The implementation has resulted in additional disclosures; see Note 3.3.



Termination of The BioAg Alliance

In February 2014, Novozymes and Monsanto formed The BioAg Alliance to discover, develop, and commercialize microbial solutions to increase crop yields and enhance sustainability.

As a consequence of Bayer's acquisition of Monsanto, Novozymes and Bayer negotiated the future setup of The BioAg Alliance. In April 2019, The BioAg Alliance was terminated, and replaced by a multi-partner setup in BioAg. Novozymes is continuing a close innovation and commercial partnership with Bayer. Reference is made to Note 2.5 for a description of the impact of The BioAg Alliance termination.



Divestment of the pharma-related royalty

In April 2019, Novozymes divested the pharma-related royalty. The transaction is classified as a divestment of assets. Reference is made to Note 2.5 and Note 3.1 for more details.



1.2 Basis of reporting

This section provides an overview of Novozymes' principal accounting policies, the critical accounting estimates and judgments applied, a definition of materiality as well as the impact of new or amended IFRS standards and interpretations.

The symbols **I/S**, **B/S** and **ESG** show which amounts in the notes can be found in the income statement, the balance sheet, and in environmental data and social and governance data respectively.

The accounting policies described below apply to the consolidated financial statements as a whole. Accounting policies and critical accounting estimates and judgments are described in the notes to which they relate to enhance understanding. The descriptions of accounting policies in the notes form part of the overall description of accounting policies.

ACCOUNTING POLICIES

Consolidation

The consolidated financial statements comprise the financial statements of Novozymes A/S (the Parent Company) and subsidiaries controlled by Novozymes A/S, prepared in accordance with Group accounting policies. The consolidated financial statements are prepared by combining items of a uniform nature and subsequently eliminating intercompany transactions, internal stockholdings and balances, and unrealized intercompany profits and losses.

Consolidation of the environmental data and social and governance data follows the same principles as the financial reporting.

Translation of foreign currencies

The consolidated financial statements are presented in Danish kroner (DKK).

Exchange rate differences arising between the exchange rate at the transaction date and the reporting date are recognized as Financial income or Financial costs.

Foreign currency transactions are translated into the functional currency defined for each company using the exchange rates prevailing at the transaction date. Monetary items denominated in foreign currencies are translated into the functional currency at the exchange rates prevailing at the reporting date.

Financial statements of foreign subsidiaries are translated into DKK at the exchange rates prevailing at the reporting date for assets and liabilities, and at average exchange rates for income statement items.

The following exchange rate differences, arising from translation using the exchange rate prevailing at the reporting date, are recognized in Other comprehensive income:

- Translation of foreign subsidiaries' net assets at the beginning of the year

- Translation of foreign subsidiaries' income statements from average exchange rates

Non-IFRS financial measures

Novozymes uses certain financial measures that are not defined in IFRS to describe the Group's financial performance, financial position and cash flows. These financial measures may therefore be defined and calculated differently from similar measures in other companies, and may thus not be comparable.

The non-IFRS financial measures presented in the annual report are:

- Organic sales growth
- Economic profit
- ROIC
- Free cash flow before acquisitions

Definitions of non-IFRS financial measures are provided in the Glossary.

CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

The preparation of the consolidated financial statements and the environmental data and social and governance data requires Management to make estimates and assumptions that can have a significant effect on the application of policies and reported amounts of assets, liabilities, income, expenses and related disclosures. The estimates and underlying assumptions are based on historical

experience and various other factors. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Changes in estimates may be necessary if there are changes in the circumstances on which the estimate was based, or more detailed information becomes available. Such changes are recognized in the period in which the estimate is revised.

The application of the Group's accounting policies may require Management to make judgments that can have a significant effect on the amounts recognized in the consolidated financial statements. Management judgment is required in particular when assessing the substance of transactions that have a complicated structure or legal form.

The critical accounting estimates and judgments can potentially significantly impact the consolidated financial statements.

Basis of reporting

1.2 Basis of reporting (continued)

The table below shows the critical accounting estimates and judgments and their level of potential impact on the consolidated financial statements:

Note	Critical accounting estimates and judgments	Estimate/ judgment	Potential impact from estimates and judgments
2.2 Revenue	Profit-sharing in partnerships	Estimate	● ● ●
2.6 Tax	Group tax charge	Estimate	● ● ●
3.1 Intangible assets and impairment test of goodwill	Impairment of intangible assets and goodwill	Estimate	● ● ●
3.1 Intangible assets and impairment test of goodwill	Intangible assets recognized at fair value	Estimate	● ● ●
4.1 Inventories	Cost of work in progress and finished goods	Estimate	● ● ●
4.2 Trade receivables and contract assets	Allowances for doubtful trade receivables	Estimate	● ● ●
4.4 Contract liabilities	Deferred income	Estimate	● ● ●
8.4 Community engagement	Learners reached	Estimate	● ● ●

Basis of reporting

The consolidated financial statements of the Group have been prepared in accordance with IFRS as adopted by the EU and further requirements in the Danish Financial Statements Act. Novozymes has prepared the consolidated financial statements in accordance with all the IFRS standards effective at December 31, 2019. The fiscal year for the Group is January 1 – December 31.

The consolidated financial statements have been prepared on a going concern basis and under the historical cost convention, with the exception of derivatives and securities, which are measured at fair value. The accounting policies are unchanged from last year except for the implementation of IFRS 16 Leases.

The consolidated environmental data and social and governance data have been

prepared in accordance with principles that adhere to the following internationally recognized voluntary reporting standards and principles:

- AA1000(2008) framework for accountability. The framework states that reporting must provide a complete, accurate, relevant and balanced picture of the organization's approach to and impact on society
- UN Global Compact. Novozymes is a signatory to the UN Global Compact, a voluntary policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labor, environment and anti-corruption. Read Novozymes' UNGC Communication on Progress in the Sustainability section
- GRI Sustainability Reporting Standards 2016 (GRI Standards). Novozymes refers

to GRI 101: Foundation 2016 to inspire its materiality assessment process and to GRI 102: General Disclosures 2016 to report contextual information about itself. Information is presented on Novozymes' management approach to material issues, taking inspiration from GRI 103: Management Approach 2016

The principles are unchanged from last year.

Defining materiality

Novozyymes' annual report is based on the concept of materiality, to ensure that the content is material and relevant.

If items are individually immaterial, they are aggregated with other items of a similar nature in the statements or in the notes. Novozymes provides the specific disclosures required by IFRS unless the information is considered

immaterial to the economic decision-making of the readers of the annual report. The disclosures on environmental, social and governance (ESG) issues include information on our management approach, targets, initiatives and related progress.

Novozyymes' materiality assessment is a systematic and rigorous process that integrates inputs from external stakeholders, trend analyses and internal engagement with relevant departments including Investor Relations, Risk Management & Controls, Quality and Sustainability and leadership from our commercial divisions. This process results in a materiality matrix (www.novozymes.com/en/about-us/sustainability/materiality) of financial and ESG issues and reflects importance of those issues to stakeholders versus impact on Novozymes. We use our materiality matrix to define our priorities and focus areas for the coming period.

In 2019, no new issues were added to or deleted from the matrix and we further integrated it into our business strategy by using it as critical input for the strategy update in 2019. In the following we highlight some of our material issues, for which, we have external targets/flagship initiatives and make a direct contribution to an SDG target(s).

1.2 Basis of reporting (continued)

Material issues with external targets or flagship initiatives	External target(s)/flagship initiative	SDGs
Innovation	<ul style="list-style-type: none"> HelloScience - open innovation platform 	
Profitable growth	<ul style="list-style-type: none"> Organic sales growth 5+% per year* EBIT margin 28% or above by 2022 ROIC incl. goodwill 23% or above by 2022 	
Climate change and energy	<ul style="list-style-type: none"> 50% reduction in absolute emissions from operations by 2030 100% renewable electricity by 2030 15% reduction in absolute emissions from purchased goods and services by 2030 	 
Water	<ul style="list-style-type: none"> 100% sites manage water in balance with local conditions by 2030 	 
Responsible sourcing	<ul style="list-style-type: none"> 100% of key materials and waste managed in circular systems by 2030 	
Community engagement and social investment	<ul style="list-style-type: none"> Pledge 1% of our time to local outreach activities by 2022 	
Occupational health and safety	<ul style="list-style-type: none"> Maintain occupational injuries \leq 1.5 	
Labor practices and human rights	<ul style="list-style-type: none"> 86 on our diversity index by 2022 80 on learning in employee survey in 2022 	 
Waste	<ul style="list-style-type: none"> Develop programs to reach zero waste by 2030 at 100% of sites 	

Get a full list of our nonfinancial targets in the Sustainability section.

*2020 is the first year of a three-year strategy period and is expected to be impacted to some extent by portfolio changes.

For a full list of our material issues and details on the materiality assessment, please see our materiality matrix and value chain assessment at novozymes.com.

Limited reporting scope

The environmental data cover those activities that could have a significant impact on the environment. Sites with activities considered not to have a significant environmental impact are not included. Such sites comprise sales offices, R&D labs, and sites with limited blending and storage of products. However, measures are taken to ensure that at least 97% of the total Novozymes quantity of the measured environmental parameter is included in the reported numbers.

Impact of new accounting standards

Novozymes has adopted the following new or amended standards and interpretations from January 1, 2019:

- IFRS 16 – Leases introduces a single lessee accounting model, requiring lessees to recognize leases in the balance sheet as a lease asset and a lease liability. In the income statement, the lease cost is replaced by depreciation of the lease asset and an interest expense for the financial liability.

The standard was implemented on January 1, 2019 using the modified retrospective approach, and comparative figures have not been restated. At initial recognition, lease assets are measured at an amount equal to the lease liability, which is measured at the

present value of future lease payments.

Novozymes does not apply IFRS 16 to short-term leases, low-value leases or leases expiring before December 31, 2019.

Novozymes applies a single discount rate to portfolios of leases with similar characteristics.

The lease liability is measured using the marginal borrowing rate in the countries in which Novozymes operates. The weighted average incremental borrowing rate for lease liabilities initially recognized at January 1, 2019 was 5.2%.

Lease costs are not split into service components and rental costs but accounted for as a single lease component. Variable service components invoiced separately are expensed as operating costs.

The following table shows the line items that are significantly impacted by the implementation of IFRS 16. Line items that are not affected are not included in the table. The implementation of IFRS 16 has had an insignificant impact on the income statement, and hence is not included in the table.

1.2 Basis of reporting (continued)

DKK million	December 31, 2019	January 1, 2019
Net book value of lease assets recognized in:		
Land and buildings ¹	397	468
Plant and machinery ¹	102	104
Other equipment	155	192
Non-current lease liabilities ²	453	571
Current lease liabilities ²	163	137

1. As of January 1, 2019 DKK 56 million and DKK 92 million respectively was transferred from previously capitalized finance leases.

2. As of January 1, 2019 a total of DKK 92 million was transferred from previous finance lease liabilities, included in other payables.

Consequently, as of December 31, 2019, ROIC was impacted negatively by 0.8 percentage point, and Free cash flow was impacted positively by DKK 108 million, as repayments of lease liabilities are now included under Financing activities. Depreciation of lease assets amounted to DKK 124 million in 2019.

The following table shows a reconciliation from operating lease commitments as of December 31, 2018 to lease liabilities as of January 1, 2019.

The implementation has resulted in additional disclosures; see Note 3.3.

DKK million	
Operating lease commitments at December 31, 2018	506
Discounted using the Group incremental borrowing rate as of January 1, 2019	(108)
Finance lease liabilities recognized at December 31, 2018	92
Short-term leases and contracts assessed as service agreements	(12)
Adjustment for useful life changes	230
Lease liabilities recognized at January 1, 2019	708

- IFRIC 23 – Uncertainty over Income Tax Treatments clarifies the accounting for uncertainties in income taxes
- Annual Improvements to IFRSs (2015-2017) contains minor changes to four standards
- Amendments to IAS 28 – Long-term interests in Associates and Joint Ventures clarifies that an entity applies IFRS 9 including its impairment requirements, to long-term interests in an associate or joint venture that form part of the net investment in the associate or joint venture but to which the equity method is not applied
- Amendments to IAS 19 – Plan amendments, Curtailment or Settlement requires an entity to use updated actuarial assumptions to determine current service cost and net interest for the remainder of the annual reporting period after the plan amendment, curtailment or settlement
- Amendment to IFRS 9 – Prepayment Features with Negative Compensations clarifies how to classify particular prepayable financial assets, as well as clarifying an aspect of the accounting for financial liabilities following a modification

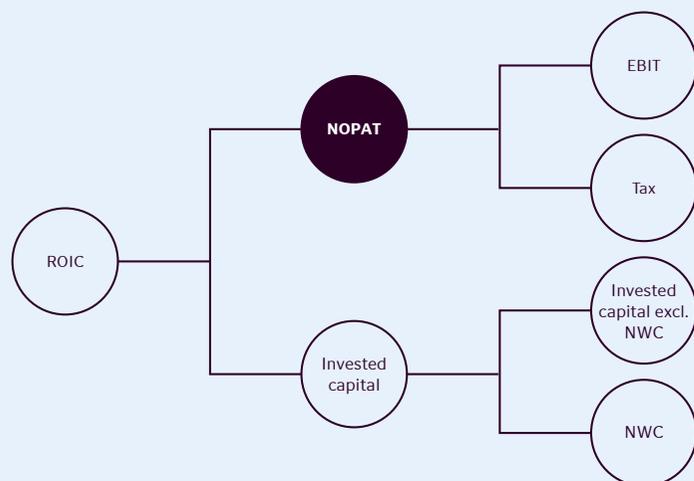
Other than the impact from IFRS 16, the adoption of the new and amended standards and interpretations has not had a significant impact on recognition, measurement or disclosures in the consolidated financial statements for 2019 and is not anticipated to have an impact on future periods.

New standards and interpretations not yet adopted

IASB has issued new or amended accounting standards and interpretations that have not yet become effective and have consequently not been implemented in the consolidated financial statements for 2019. Novozymes expects to adopt the accounting standards and interpretations when they become mandatory. None of the new or amended standards or interpretations are expected to have an impact on the consolidated financial statements.

Net operating profit after tax

Net operating profit after tax



DKK million	Note	2019	2018
Revenue	2.2	14,374	14,390
Cost of goods sold		(6,420)	(6,135)
Gross profit		7,954	8,255
Sales and distribution costs		(1,631)	(1,571)
Research and development costs	2.4	(1,966)	(1,865)
Administrative costs		(838)	(792)
Other operating income, net	2.5	520	43
Operating profit (EBIT)		4,039	4,070
Exchange gains/(losses)		(205)	(89)
Tax on adjusted operating profit		(650)	(717)
Share of loss in associates		(5)	(17)
Adjusted operating profit (NOPAT)		3,179	3,247
Average invested capital (see Invested capital section)		15,038	13,417
ROIC		21.1%	24.2%

Organic sales growth

(1)%

Net profit growth

(2)%

EBIT margin at

28.1%



2.1 Segment

Segment reporting

The internal reporting framework used for reporting on revenue and expenses to the Executive Leadership Team and the Board of Directors has been established to reflect and report on the global functional responsibility setup at Novozymes. This setup consolidates functions by type, and Management reviews the results of the Group as a whole to assess performance. Thus, there is only one operating segment.

Worldwide operations

The Group operates in four geographical regions: Europe, Middle East & Africa (including Denmark), North America, Asia Pacific and Latin America. From a revenue perspective, the US is the largest single market, contributing ~31% of the Group's revenue (2018: ~32%).

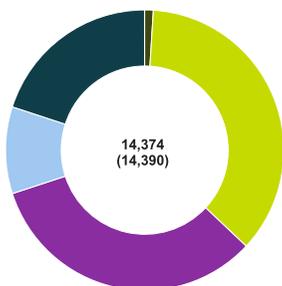
The geographical distribution of revenue is based on the country in which the goods are delivered. With a number of customers, central deliveries are made to specified locations and the final destination is unknown. The stated

geographical distribution of revenue may therefore vary from year to year if the delivery destination for these customers changes.

Most of the Group's intangible assets and property, plant and equipment are located in Denmark, the US and China at ~50%, ~30% and ~13% respectively (2018: ~50%, ~30% and ~13%).

Revenue 2019 (2018)

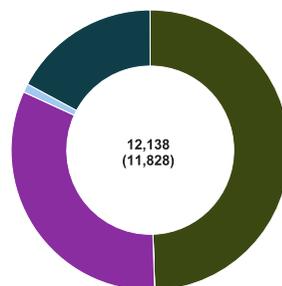
DKK million



- Denmark **166** (204)
- Rest of Europe, Middle East & Africa **5,174** (5,010)
- North America **4,750** (4,893)
- Latin America **1,407** (1,381)
- Asia Pacific **2,877** (2,902)

Intangible assets and property, plant and equipment 2019 (2018)

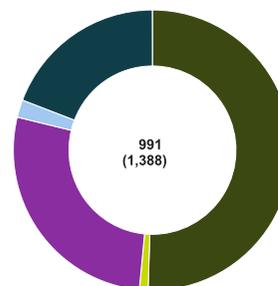
DKK million



- Denmark **6,007** (5,871)
- Rest of Europe, Middle East & Africa **51** (49)
- North America **3,935** (3,738)
- Latin America **142** (160)
- Asia Pacific **2,003** (2,010)

Net investments 2019 (2018)

DKK million



- Denmark **495** (713)
- Rest of Europe, Middle East & Africa **13** (9)
- North America **271** (309)
- Latin America **12** (19)
- Asia Pacific **191** (338)

Net operating profit after tax

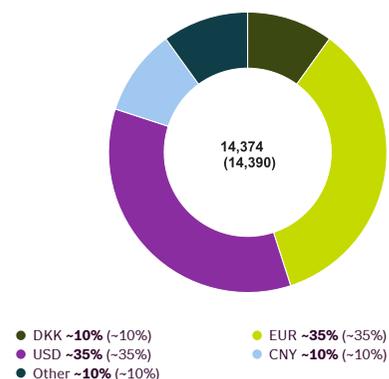
2.2 Revenue

DKK million	2019	2018
Household Care	4,758	4,625
Food & Beverages	4,171	4,122
Bioenergy	2,820	2,806
Agriculture & Feed	1,881	2,045
Technical & Pharma	744	792
Revenue	14,374	14,390
Emerging markets	4,938	4,980
Developed markets	9,436	9,410
Revenue	14,374	14,390
Sales to the five largest customers as a percentage of revenue	27%	28%

At the beginning of 2019, contract liabilities amounted to DKK 374 million (2018: DKK 573 million), of which DKK 26 million was recognized as revenue in 2019 (2018: DKK 224 million).

Sales by currency 2019 (2018)

DKK million



The majority of Novozymes' revenue is derived from the sale of goods to customers, where revenue is recognized when goods are delivered. Less than 1% of Novozymes' total revenue arises from royalties.

Sales growth 2019

DKK million



CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Novozymes has entered into partnerships where Novozymes manufactures and sells products to a partner, who undertakes the sales to end customers, and where the profit on products sold to end customers is shared between the partner and Novozymes based on predetermined profit-sharing mechanisms. Revenue related to this type of partnership comprises approximately 11%

of Novozymes' total annual revenue (2018: approximately 13%).

A minor part of the revenue, related to the expected profit-share on products sold to the partner, requires significant judgment and estimates by Management. This involves estimating future selling prices to end customers, along with their impact on rebate schemes, and estimating product returns from end customers.

ACCOUNTING POLICIES

Novozymes produces a wide range of industrial enzymes and microorganisms. Revenue includes the sale of goods and related services and royalties, and is recognized at an amount that reflects the consideration to which Novozymes expects to be entitled. Revenue from the straightforward sale of goods to customers is recognized when control of the goods is transferred to the customer, i.e. when goods are delivered. Variable considerations are included in revenue to the extent that they are not subject to significant uncertainty.

microorganisms to customers, and each batch delivered is considered a separate performance obligation, as each batch is distinct.

Discounts

Enzymes and microorganisms are sometimes sold at a rebate. A rebate agreement can be set up in various ways, but common to all agreements is that revenue is recognized based on the price specified in the contract, net of the estimated rebate. The rebates are estimated based on experience, as well as information related to expected orders 3-12 months in advance. The estimated rebates are reassessed at the end of each reporting period.

The performance obligations in the contracts are to deliver enzymes and

2.2 Revenue (continued)

§ ACCOUNTING POLICIES

Returns

A few of Novozymes' partnerships are granted a right of return. No revenue is recognized for the goods expected to be returned, as a refund liability is recognized. Estimates of the expected level of returns are based on analysis of historical returns and knowledge of the relevant markets/products. These estimates are updated at the end of each reporting period. As the goods returned are usually scrapped, no inventory asset is recognized.

Profit split

Novozymes has entered into partnerships where Novozymes manufactures and sells products to a partner, who undertakes the sales to end customers. The profit on products sold to end customers is shared between the partner and Novozymes based on predetermined profit-sharing mechanisms.

Revenue from these arrangements consists of sales of products to the partner and the shared profit, and is recognized in full when the goods are delivered to the other contracting party. This is done by calculating the expected profit based on insights, experience and other input factors. The calculated profit is recognized as a contract asset or contract liability until an invoice is issued. The realized profit is settled periodically.

Commission

Novozymes has entered into 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.

Other

Revenue collected on behalf of third parties is not recognized as revenue.

Novozymes' obligation to provide a refund for products that are not of the agreed quality or according to agreed specifications under the standard warranty terms is recognized as contract liabilities. Reference is made to Note 4.4.

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 payment is due. Typical payment terms are around 60 days.

Contract liabilities consist of advance payments, deferred revenue and liabilities for refund goods. The contract liabilities are recognized as revenue as the performance obligations under the contracts are fulfilled.

Net operating profit after tax

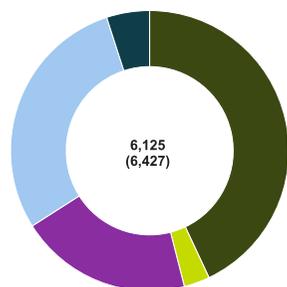
2.3 Employees

DKK million	2019	2018
Wages and salaries	3,195	2,960
Pensions – defined contribution plans	292	306
Other social security costs	284	232
Other employee costs	117	114
Stock-based payment	46	100
Employee costs	3,934	3,712
Recognized in the income statement under the following items:		
Cost of goods sold	1,447	1,350
Sales and distribution costs	869	778
Research and development costs	1,122	1,057
Administrative costs	504	492
	3,942	3,677
Change in employee costs recognized in Inventories	(8)	35
Employee costs	3,934	3,712

In August 2019, Novozymes announced organizational changes related to the updated strategy. As a consequence of the changes, around 300 employees were laid off globally across the organization. The employee cost in 2019 include restructuring costs related to this of around DKK 200 million. The one-off impact is partly offset by reduced employee cost in the remainder of the year. In addition, the announced changes in the Executive Leadership Team during 2019 has resulted in severance cost of DKK 58 million.

Number of employees end of year 2019 (2018)

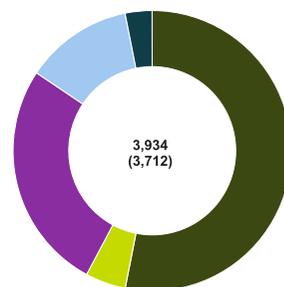
No. of employees



- Denmark **2,640** (2,687)
- Rest of Europe, Middle East & Africa **191** (191)
- North America **1,195** (1,301)
- Asia Pacific **1,792** (1,892)
- Latin America **307** (356)

Employee costs 2019 (2018)

DKK million



- Denmark **2,084** (2,004)
- Rest of Europe, Middle East & Africa **171** (145)
- North America **1,065** (981)
- Asia Pacific **500** (470)
- Latin America **114** (112)

2.3 Employees (continued)

	2019	2018
Average number of employees in the Group	6,341	6,351
Average number of employees who work with R&D	1,522	1,522
Number of employees outside Denmark as a percentage of total number of employees	57%	58%
Part-time employees	292	296
Full-time employees	5,833	6,131
Employees at December 31	6,125	6,427
Senior management	189	188
Management	1,136	1,207
Professional	1,711	1,820
Administrative	579	602
Skilled workers, laboratory technicians and other technicians	1,294	1,364
Process operators	1,216	1,246
Employees by category	6,125	6,427

Employee gender distribution 2019 (2018)



● Women **37.6%** (37.7%)
 ● Men **62.4%** (62.3%)

ACCOUNTING POLICIES

The number of employees is derived from contractual obligations, but does not include employees on unpaid leave, temporary replacements, student interns, agency employees, consultants or PhD students. In calculating the number of full-time employees, employees with a working-time ratio of 95% or more are counted as full-time employees.

The average number of employees is calculated as the average of the number of permanent employees at the end of each month.

Job categories are defined as follows: Senior management comprises the CEO, executive vice presidents, senior vice presidents, vice presidents and directors. Management comprises middle managers and specialists. Professional comprises employees with academic backgrounds as well as team leaders. Process operators comprises operators and unskilled workers.

2.4 Research and development costs

DKK million	Note	2019	2018
Internal and external research and development costs		519	564
Employee costs	2.3	1,122	1,057
Amortization and impairment losses, intangible assets	3.1	170	120
Depreciation and impairment losses, property, plant and equipment	3.2	155	124
Total research and development costs	I/S	1,966	1,865
As a percentage of revenue		13.7%	13.0%

In 2019, Novozymes launched nine new products (2018: eight new products). New products comprise products with new or improved characteristics.

In 2019, Novozymes had 951 active patent families (2018: 1,041). Active patent families comprise the number of inventions for which Novozymes has one or more active patent applications or active patents at December 31.



ACCOUNTING POLICIES

Research and development costs primarily comprise employee costs, internal and external costs related to the development of new products and to the ongoing optimization of production processes for existing products, and amortization, depreciation and impairment losses related to intangible assets and property, plant and equipment used in the research and development activities.

Research and development costs are expensed as incurred unless the criteria for capitalization are deemed to have been met. Due to significant uncertainty associated with the development of new products, research and development costs are not capitalized.

Income received from research and collaboration agreements is recognized in Other operating income.

Net operating profit after tax

2.5 Other operating income, net

DKK million	2019	2018
Income and grants concerning research projects/ collaborations	11	33
Other secondary income, net	15	10
Net gain from termination of The BioAg Alliance	300	-
Net gain from divestment of the pharma-related royalty	194	-
Other operating income, net	520	43

Other operating income was significantly impacted by the termination of The BioAg Alliance at a net gain of DKK 300 million. The net gain mainly comprises the release of the remaining deferred revenue of DKK 287 million originating from the formation of the Alliance. Furthermore, the net gain comprises the income related to assets recognized at fair value offset by impairment losses and transaction costs.

A net gain of DKK 194 million related to the divestment of the pharma-related royalty was recognized in 2019. The net gain comprises the selling price less contingent consideration, transaction costs and the disposed goodwill.

§ ACCOUNTING POLICIES

Other operating income comprises income that is not product-related. This includes income from research and collaboration agreements, government grants, sale of

licenses, patents, etc., and other income of a secondary nature in relation to the main activities of the Group. This item also includes non-recurring income items in respect of damages, outlicensing, etc., and gains and losses on divestments.

Net operating profit after tax

2.6 Tax

Tax risk

Novozymes operates in many markets via sales companies and distributors, while production takes place in a small number of countries. This leads to transactions between group companies. Novozymes follows the OECD principles in setting internal transfer prices for these transactions, but this is a complicated area and entails a tax risk, partly because the area is subject to political judgment in every country. Novozymes regularly enters into dialogue with tax authorities to reduce this risk, and has entered into advance pricing

agreements (APAs) with the tax authorities in the countries where internal transactions are the most significant.

A majority of intercompany transactions within Novozymes are covered by bilateral APAs. The APAs provide certainty that transactions are carried out on arm's length terms. Please also refer to Novozymes' Position on Tax at Novozymes.com.

Joint taxation

Novozymes A/S and its Danish subsidiaries are jointly taxed with the Danish companies of the Novo Holdings A/S Group. Joint taxation also covers withholding taxes in the form of dividend tax, royalty tax and interest tax. The Danish companies are jointly and individually liable for the joint taxation liability. Any subsequent adjustments to income taxes and withholding taxes may lead to a larger liability. Tax for the individual companies is allocated in full on the basis of the expected taxable income.

Tax in the income statement

DKK million	2019	2018
Tax payable on net profit	(894)	(890)
Change in deferred tax	262	150
Adjustment for previous years	(12)	31
Tax in the income statement	(644)	(709)
Calculation of effective tax rate:		
Corporate tax rate in Denmark	(22.0)%	(22.0)%
Non-taxable income less non-deductible expenses	0.6%	(0.1)%
Difference in foreign tax rates	2.6%	3.3%
Other adjustments	1.8%	0.8%
Effective tax rate	(17.0)%	(18.0)%



CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

As the Group operates across many different countries, the calculation of the Group's total tax charge in the income statement inherently involves a degree of estimation and judgment. Tax and transfer-pricing disputes with authorities in various countries may occur, and Management judgment is applied to assess the possible outcome of such disputes.

Payments in respect of tax liabilities for an accounting period result from payments on account and on the final resolution of open items. As a result, there may be substantial differences between the tax charge in the consolidated income statement and actual tax payments.

Transfer of intellectual property from Switzerland to Denmark had a positive impact on the effective tax rate of 2.9% in 2019 (2018: 3.1%). This is recognized in Difference in foreign tax rates.

In 2019, Novozymes had a positive impact from uncertain tax positions related to APAs, recognized in Other adjustments.

Net operating profit after tax

2.6 Tax (continued)

Deferred tax

DKK million	Deferred tax assets		Deferred tax liabilities	
	2019	2018	2019	2018
Intangible assets and property, plant and equipment	947	742	(1,265)	(1,193)
Inventories	427	471	(197)	(188)
Tax loss carry-forwards	42	34	-	-
Stock options	109	75	-	-
Other	274	266	(55)	(161)
	1,799	1,588	(1,517)	(1,542)
Offsetting items	(638)	(650)	638	650
Deferred tax at December 31	1,161	938	(879)	(892)

The tax value of the unrecognized share of tax loss carry-forwards, tax credits, etc. that do not expire amounted to DKK 20 million (2018: DKK 23 million).

DKK million	2019	2018
Deferred tax at January 1	46	34
Currency translation adjustments	2	1
Tax related to the income statement	229	123
Tax on shareholders' equity items	5	(112)
Deferred tax at December 31	282	46
Deferred tax assets	1,161	938
Deferred tax liabilities	(879)	(892)
Deferred tax at December 31	282	46

§ ACCOUNTING POLICIES

Corporation tax, comprising the current tax liability, change in deferred tax for the year and possible adjustments relating to prior years, is recognized in the income statement, unless it relates to items recognized either in Other comprehensive income or directly in Shareholders' equity. Uncertain tax positions are assessed individually and recognized if it is probable that an amount will be paid or received. Deferred tax is measured using the balance sheet liability method and comprises all temporary differences between the carrying amount and the tax base of assets and liabilities. No deferred tax is recognized for goodwill, unless amortization of goodwill for tax purposes is allowed. The tax value of tax loss carry-forwards is included in the calculation of deferred tax to the extent that the tax losses can be expected to be utilized in the future.

Deferred tax is measured according to current tax rules and at the tax rate expected to be in force on elimination of temporary differences. Changes in deferred tax due to tax rate changes are recognized in the income statement, unless they relate to items recognized either in Other comprehensive income or directly in Shareholders' equity.

Net operating profit after tax

2.6 Tax (continued)

Tax receivables and payables

DKK million	2019	2018
Tax payables, net, at January 1	(401)	(348)
Currency translation adjustments	(2)	3
Tax related to the income statement	(872)	(832)
Tax on shareholders' equity items	1	15
Tax paid for the current year, net	1,116	761
Tax payables, net, at December 31	(158)	(401)
Tax receivables	B/S 273	174
Tax payables	B/S (431)	(575)
Tax payables, net, at December 31	(158)	(401)
Of which due within 12 months	(32)	(80)
Of which due after more than 12 months	(126)	(321)
Tax payables, net, at December 31	(158)	(401)
Corporate income taxes paid are specified as follows:		
Income taxes paid in Denmark	701	546
Income taxes paid outside Denmark	415	215
Total income taxes paid	1,116	761

Net operating profit after tax

2.7 Earnings per share

DKK million	2019	2018
Net profit for the year	3,155	3,227
Less net profit attributable to non-controlling interests	(1)	(1)
Net profit attributable to the shareholders in Novozymes A/S	3,154	3,226
Average number of shares		
Weighted average number of shares in circulation	285,110,290	290,422,325
Average dilutive effect of outstanding stock options and stock awards	1,441,008	1,940,030
Average number of diluted shares	286,551,298	292,362,355
Earnings per share	DKK 11.06	DKK 11.11
Earnings per share, diluted	DKK 11.01	DKK 11.03



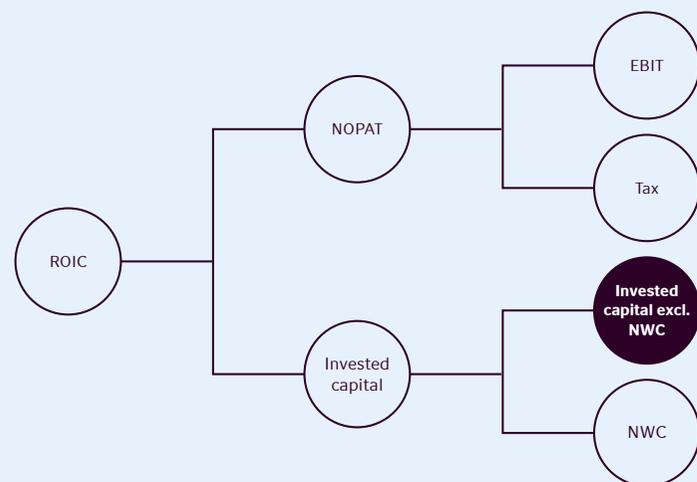
ACCOUNTING POLICIES

Earnings per share is calculated as net profit attributable to shareholders in Novozymes A/S divided by the average number of shares in circulation.

Diluted earnings per share is calculated as net profit attributable to shareholders in Novozymes A/S divided by the average number of shares in circulation, including the dilutive effect of stock options “in the money”.

Invested capital

Invested capital



DKK million	Note	2019	2018
Intangible assets	3.1	1,926	2,130
Property, plant and equipment	3.2	10,212	9,698
Investments in associates		37	42
Net working capital (see Net working capital section)		3,478	2,768
Financial assets, non-interest-bearing		15	14
Provisions	3.4	(243)	(229)
Other non-current financial liabilities, non-interest-bearing		(11)	(5)
Other financial liabilities, non-interest-bearing		(31)	(110)
Tax, net		124	(355)
Invested capital		15,507	13,953
Average invested capital*		15,038	13,417

*Average invested capital for 2019 includes an impact of DKK 563 million from the implementation of IFRS 16 at January 1, 2019 and December 31, 2019.

ROIC down from 24.2% in 2018 to

21.1%

Increase in average invested capital of DKK million

1,621

Net investments excl. acquisitions down from DKK 1,388 million in 2018 to DKK million

991



3.1 Intangible assets and impairment test of goodwill

DKK million	Goodwill	Acquired patents, trademarks, licenses and know-how, etc.	Completed IT development projects	IT development projects in progress	Total
Cost at January 1, 2019	1,086	2,942	533	59	4,620
Currency translation adjustments	2	2	-	-	4
Additions during the year	-	129	47	54	230
Disposals during the year	(123)	(425)	-	-	(548)
Transfers to/(from) other items	-	-	84	(84)	-
Cost at December 31, 2019	965	2,648	664	29	4,306
Amortization and impairment losses at January 1, 2019		(2,062)	(428)		(2,490)
Currency translation adjustments		(1)	-		(1)
Amortization during the year		(163)	(47)		(210)
Impairment losses		(71)	-		(71)
Disposals during the year		392	-		392
Amortization and impairment losses at December 31, 2019		(1,905)	(475)		(2,380)
Carrying amount at December 31, 2019	965	743	189	29	1,926

Due to the termination of The BioAg Alliance, Intellectual property from The BioAg Alliance has been transferred to Novozymes free of charge. These assets have been recognized at fair value amounting to DKK 95 million and the corresponding income is recognized in Other operating income.

The goodwill disposal is related to the divestment of the pharma-related royalty.

Impairment

In 2019, impairment losses of DKK 71 million on two specific assets were recognized. As these are related to the termination of

The BioAg Alliance, the impairment losses are recognized and included in Other operating income.

The impairment losses were the result of impairment tests performed on assets where the termination of The BioAg Alliance has resulted in reduced sales projections for the assets in question. The cash flow used to test one of the assets for impairment was based on business plans for the period 2019-2025, and the terminal value used was based on the expected lifetime and cash flow over that period. For the other impaired asset, the cash flow ceased in 2019 with the termination of The BioAg Alliance.

A pre-tax WACC of 7% was used to calculate the discounted cash flows.

Impairment test of goodwill

Since 2016, Management has identified two cash-generating units (CGUs): Novozymes' main activities and the Biopharma CGU. With the divestment of the pharma-related royalty, and thereby the remaining activity within the Biopharma CGU in April 2019, only one CGU remains.

As the market value of Novozymes is significantly higher than its equity, no further key assumptions are used to determine whether impairment of goodwill exists (2018: no impairment).



CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Management assesses the risk of impairment of the Group's intangible assets. This requires judgment in relation to the identification of cash-generating units (CGUs) and the underlying assumptions in the Group's impairment model.

If there is any indication of impairment, value in use is estimated and compared with the carrying amount. The calculation of value in use is based on the discounted cash flow method using estimates of future cash flows from the continuing use. The key parameters are the expected revenue streams and the rate used to discount the cash flows.

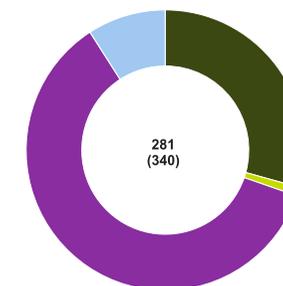
As a consequence of the termination of The BioAg Alliance, intellectual property from The BioAg Alliance has been recognized at fair value. Measuring the fair value of these assets requires Management assessment of business plans for the individual assets. The key parameters are expected cash flows and the WACC used to discount the cash flows.

3.1 Intangible assets and impairment test of goodwill (continued)

DKK million	Goodwill	Acquired patents, trademarks, licenses and know-how, etc.	Completed IT development projects	IT development projects in progress	Total
Cost at January 1, 2018	1,108	2,923	492	61	4,584
Currency translation adjustments	(22)	(2)	-	-	(24)
Additions during the year	-	21	14	25	60
Transfers to/(from) other items	-	-	27	(27)	-
Cost at December 31, 2018	1,086	2,942	533	59	4,620
Amortization and impairment losses at January 1, 2018		(1,793)	(359)		(2,152)
Currency translation adjustments		3	(1)		2
Amortization during the year		(213)	(68)		(281)
Impairment losses		(59)	-		(59)
Amortization and impairment losses at December 31, 2018		(2,062)	(428)		(2,490)
Carrying amount at December 31, 2018	1,086	880	105	59	2,130

Recognition of amortization and impairment losses by function 2019 (2018)

DKK million



- Cost of goods sold **82** (179)
- Sales and distribution **3** (7)
- Research and development **170** (120)
- Administration **26** (34)

Impairment

In 2018, impairment losses of DKK 59 million on two specific assets were recognized and included in Cost of goods sold and Research and development costs at DKK 46 million and DKK 13 million respectively.

The impairment losses were the result of impairment tests performed on assets where indications of impairment had been identified due to reduced sales projections for the assets in question. The cash flow used for the impairment test of one of the assets was based on business plans for the period 2019-2023,

and the terminal value used was based on the expected lifetime and cash flow over that period. For the other impaired asset, the cash flow was expected to cease in 2019.

A pre-tax WACC of 7% was used to calculate the discounted cash flows.

3.1 Intangible assets and impairment test of goodwill (continued)

§ ACCOUNTING POLICIES

Intangible assets other than goodwill are measured at cost less accumulated amortization and impairment losses. Goodwill and IT development projects in progress are not subject to amortization.

Costs associated with large IT projects for the development of software for internal use are capitalized if incurred with a view to developing new and improved systems.

Amortization is based on the straight-line method over the expected useful lives of the finite-lived assets, as follows:

- Completed IT development projects are amortized over the useful life. IT development assets are amortized over a period of 3-5 years
- Acquired patents, trademarks, licenses and know-how are amortized over their useful lives. The useful lives of patents and trademarks are normally identical to the patent period. Licenses are amortized over the agreement period. Recognized patents, trademarks, licenses and know-how are amortized over a period of 7-15 years

Expected useful lives are reassessed regularly.

The Group regularly reviews the carrying amounts of its finite-lived intangible assets to determine whether there is an indication of an impairment loss. An impairment loss is recognized to the extent that the asset's carrying amount exceeds its estimated recoverable amount. Impairment losses are reversed only to the extent of changes in the assumptions and estimates underlying the impairment calculation.

Goodwill is tested for impairment annually or whenever there is an indication that the asset may be impaired.

Invested capital

3.2 Property, plant and equipment

DKK million	Land and buildings	Plant and machinery	Other equipment	Assets under construction and prepayments	Total
Cost at January 1, 2019	5,694	10,645	1,846	1,848	20,033
Lease assets at January 1, 2019	412	12	192	-	616
Currency translation adjustments	59	99	19	8	185
Additions during the year	127	184	215	383	909
Disposals during the year	(41)	(71)	(61)	(33)	(206)
Transfer to assets held for sale	(273)	-	-	-	(273)
Transfers to/(from) other items	1,068	307	169	(1,544)	-
Cost at December 31, 2019	7,046	11,176	2,380	662	21,264
Depreciation and impairment losses at January 1, 2019	(2,915)	(6,193)	(1,227)	-	(10,335)
Currency translation adjustments	(22)	(44)	(9)	-	(75)
Depreciation for the year	(264)	(504)	(189)	-	(957)
Impairment losses	(15)	-	-	-	(15)
Disposals during the year	15	64	40	-	119
Transfer to assets held for sale	211	-	-	-	211
Transfers to/(from) other items	-	2	(2)	-	-
Depreciation and impairment losses at December 31, 2019	(2,990)	(6,675)	(1,387)	-	(11,052)
Carrying amount at December 31, 2019	4,056	4,501	993	662	10,212

The implementation of IFRS 16 as of January 1, 2019, resulted in an increase in Property, plant and equipment of DKK 616 million. Refer to Note 1.2 for a description of the impact of the implementation of IFRS 16, and Note 3.3 for additional disclosures relating to leases.

Depreciation relating to leases in 2019 amounted to DKK 124 million.

Capitalized interest and pledges

Interest of DKK 2 million (2018: DKK 29 million) was capitalized under Additions during the year and included as Investing activities in the statement of cash flows. Capitalization rate: 0.9% (2018: 2.98%).

Land and buildings with a carrying amount of DKK 1,526 million (2018: DKK 355 million) has been pledged as security to credit institutions. The mortgage loans expire in 2029 and 2039.

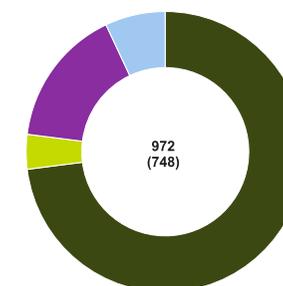
Impairment

An ongoing production related construction project was abandoned in 2019. This led to an expense of DKK 33 million, which was recognized in Cost of goods sold.

Buildings expected to be sold within 12 months, were written down to the expected selling price less transaction costs before being transferred to Assets held for sale. Buildings amounting to DKK 62 million was transferred

Recognition of depreciation and impairment losses by function 2019 (2018)

DKK million



- Cost of goods sold **713** (556)
- Sales and distribution **39** (35)
- Research and development **155** (124)
- Administration **65** (33)

to Assets held for sale. An impairment loss of DKK 15 million was recognized in Sales and distribution cost and Administrative cost at DKK 4 million and DKK 11 million respectively.

In 2018, an impairment loss of DKK 18 million on a building was recognized and included in Sales and distribution costs.

Invested capital

3.2 Property, plant and equipment (continued)

DKK million	Land and buildings	Plant and machinery	Other equipment	Assets under construction and prepayments	Total
Cost at January 1, 2018	5,415	9,808	1,679	1,648	18,550
Currency translation adjustments	51	107	18	5	181
Additions during the year	121	326	87	890	1,424
Disposals during the year	(8)	(90)	(24)	-	(122)
Transfers to/(from) other items	115	494	86	(695)	-
Cost at December 31, 2018	5,694	10,645	1,846	1,848	20,033
Depreciation and impairment losses at January 1, 2018	(2,718)	(5,789)	(1,117)	-	(9,624)
Currency translation adjustments	(15)	(45)	(10)	-	(70)
Depreciation for the year	(168)	(442)	(120)	-	(730)
Impairment losses	(18)	-	-	-	(18)
Disposals during the year	4	83	20	-	107
Depreciation and impairment losses at December 31, 2018	(2,915)	(6,193)	(1,227)	-	(10,335)
Carrying amount at December 31, 2018	2,779	4,452	619	1,848	9,698
Of which assets held under finance leases	56	92	-	-	148



ACCOUNTING POLICIES

Property, plant and equipment is measured at cost less accumulated depreciation and impairment losses. Borrowing costs in respect of construction of major assets are capitalized.

Depreciation is based on the straight-line method over the expected useful lives of the assets, as follows:

- Buildings: 12-50 years
- Plant and machinery: 5-25 years
- Other equipment: 3-18 years

The residual values and useful lives of the assets are reviewed on an annual basis and adjusted if necessary at each reporting date.

The Group regularly reviews the carrying amounts of its property, plant and equipment to determine whether there is any indication of impairment in those assets. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of any impairment loss. If the recoverable amount of an asset is estimated to be lower than its carrying amount, the carrying amount is reduced to the recoverable amount. Impairment losses are reversed only to the extent of changes in the assumptions and estimates underlying the impairment calculation.

Invested capital

3.3 Leases

IFRS 16 was implemented as of January 1, 2019. Refer to Note 1.2 for further description.

DKK million	2019	2018
Land and buildings	397	56
Plant and machinery	102	92
Other equipment	155	-
Carrying amount of lease assets	654	148

In 2018, DKK 148 million was recognized as finance leases.

Additions to the lease assets during 2019 was DKK 47 million.

DKK million	2019	2018
Lease liabilities		
Less than 1 year	165	3
Between 1 and 5 years	307	15
More than 5 years	238	74
Undiscounted lease liabilities at December 31	710	92

In 2018, DKK 92 million was recognized as finance lease liabilities.

DKK million	2019
Amounts recognized in the income statement	
Interest on lease liabilities	28
Variable lease payments not included in the lease liabilities	3
Expenses relating to short-term leases	11
Expenses relating to low-value leases	1
Depreciation of lease assets per asset class	
Land and buildings	68
Plant and machinery	5
Other equipment	51
Depreciation of lease assets	124
Amounts recognized in the statement of cash flows	
Total cash outflow for leases	136

§ ACCOUNTING POLICIES

Lease assets

Lease assets are 'right-of-use assets' from lease agreements. If, at inception, it is assessed that a contract contains a lease, a lease asset is recognized. Lease assets are initially measured at the present value of future lease payments, plus the cost of obligations to refurbish the asset. Payments include fixed payments, variable lease payments depending on an index or a rate and the exercise price of purchase options that are reasonably certain to be exercised.

The lease assets are depreciated using the straight-line method over the shorter of the expected lease term and the useful life of the underlying asset. The lease assets are tested for impairment whenever there is an indication that the assets may be impaired.

Lease assets are depreciated as follows:

- Buildings: 1-12 years
- Land: 10-90 years
- Plant and machinery: 1-10 years
- Equipment and company cars: 1-10 years

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.

Novozymes' portfolio of leases covers leases of land, buildings and other equipment such

as cars and transportation containers.

Lease liabilities

Lease liabilities are initially recognized at the present value of future lease payments including payments from extension or purchase options that are considered reasonably certain to be exercised.

The lease liability is measured using the implicit borrowing rate in the contracts or, where this is not available, the marginal borrowing rate in the countries in which Novozymes operates. Novozymes applies a single discount rate to portfolios of leases in the countries in which Novozymes operates based on contract currency and loan periods.

If a lease contract is modified, the lease liability is remeasured. For building leases, lease terms are estimated taking the size of the building and its strategic importance into consideration. Novozymes has entered into several open-ended building leases and building leases with extension options. Lease terms of such agreements are estimated based on the strategic importance of the buildings and the estimated time frame necessary to vacate the premises. The estimated lease term is reassessed at each reporting date. The estimated lease terms for such contracts do not exceed 12 years.

Invested capital

3.4 Provisions

DKK million	2019			2018		
	Dismantling and restoration	Legal and other obligations	Total	Dismantling and restoration	Legal and other obligations	Total
Provisions at January 1	82	147	229	74	171	245
Reclassification to Contract liabilities				-	(20)	(20)
Currency translation adjustments	1	1	2	3	(1)	2
Additions during the year	-	168	168	5	42	47
Reversals during the year	-	(19)	(19)	-	(41)	(41)
Utilization during the year	-	(137)	(137)	-	(4)	(4)
Provisions at December 31	83	160	243	82	147	229
Recognized in the balance sheet as follows:						
Non-current	B/S 25	90	115	72	60	132
Current	B/S 58	70	128	10	87	97
Provisions at December 31	83	160	243	82	147	229

Dismantling and restoration

Dismantling and restoration relates to estimated future costs of environmental restoration. Novozymes aims for its production sites not to have a negative environmental impact. These liabilities relate to established circumstances, and the costs are expected to be incurred either when concrete measures are implemented or when a site is vacated. The expected costs and timing are by nature uncertain.

Legal and other obligations

Novozyymes is involved in a number of ongoing legal disputes, and provisions are made for the estimated costs of these based on a current evaluation of the outcomes. In 2019, Novozymes settled a long-standing patent dispute, and as a result Novozymes has paid DKK 65 million to the counterpart, of which DKK 31 million was provided for in previous years. The remaining ongoing cases are expected to be finalized in 2020-2021.

In Management's opinion, the outcomes of these cases are not expected to give rise to any significant losses beyond the amounts provided for at December 31, 2019.

Other obligations include contingent consideration, other long-term employee benefits and other contractual obligations.

The contingent consideration mainly relates to the divestment of the pharma-related royalty



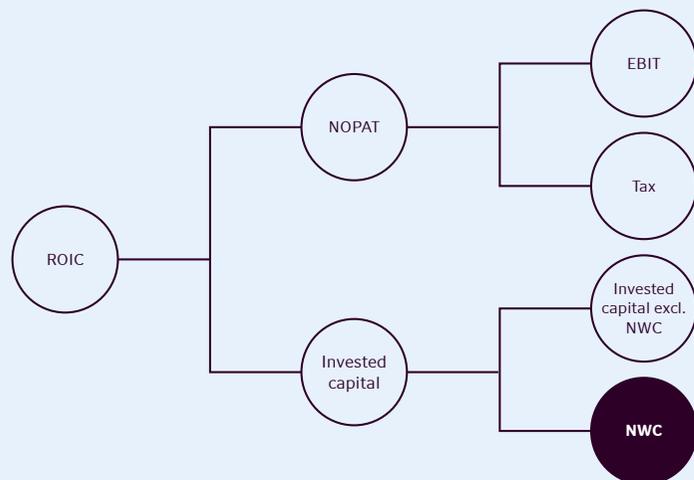
ACCOUNTING POLICIES

Provisions are recognized where a legal or constructive obligation has been incurred as a result of past events and it is probable that it will lead to an outflow of financial resources. Provisions are measured at the present value of the expected expenditure required to settle the obligation.

where part of the selling price received has to be repaid if certain patent registrations are not obtained by 2021. In other obligations, DKK 40 million has been utilized as a consequence of the termination of The BioAg Alliance. Other long-term employee benefits account for only a minor amount, as the majority of Novozymes' pension plans are defined contribution plans, covering approximately 99% of employees. These obligations are mainly expected to be incurred over a relatively long period of time.

Net working capital

Net working capital



DKK million	Note	2019	2018
Inventories	4.1	2,613	2,820
Trade receivables	4.2	2,864	2,606
Contract assets	4.2	243	279
Other receivables	4.3	298	253
Assets held for sale	4.6	62	-
Trade payables		(1,117)	(1,418)
Contract liabilities	4.4	(74)	(374)
Other liabilities	4.5	(1,411)	(1,398)
Net working capital		3,478	2,768
Average net working capital		3,123	2,396

Average net working capital in DKK million

3,123

Net working capital as % of sales

24.2%



4.1 Inventories

DKK million	2019	2018
Raw materials and consumables	365	372
Work in progress	821	828
Finished goods	1,427	1,620
Inventories at December 31	2,613	2,820
Cost of materials, included under Cost of goods sold	3,510	3,411
Write-downs expensed during the year	110	117
Reversal of write-downs during the year*	63	33

*Part of the reversal of write-downs is attributable to written-down inventory being reused in production.



CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Work in progress and Finished goods are measured at cost, including indirect production costs. The indirect production costs capitalized under inventories amounted to DKK 907 million at the end

of 2019 (2018: DKK 938 million). Indirect production costs are assessed on an ongoing basis to ensure reliable measurement of employee costs, capacity utilization, cost drivers and other relevant factors. Changes in these parameters may have an impact on the gross margin and the overall valuation of Work in progress and Finished goods.



ACCOUNTING POLICIES

Inventories are measured at the lower of cost determined on a first-in first-out basis and net realizable value.

The cost of Work in progress and Finished goods comprises direct production costs such as raw materials and consumables, energy and labor directly attributable to production as well as indirect production costs such as employee costs, maintenance and depreciation of plants, etc.

If the expected selling price less any completion costs and costs to execute the sale (net realizable value) of inventories is lower than the carrying amount, inventories are written down to net realizable value.

Novozymes has entered into a few agreements where Novozymes supplies goods to a customer's premises but retains title to the inventory until the goods are consumed in the customer's production. Such goods are derecognized from inventories in the period when they are consumed in the customer's production.

4.2 Trade receivables and contract assets

DKK million	2019	2018
Trade receivables, gross	3,022	2,768
Allowances	(158)	(162)
Trade receivables at December 31	2,864	2,606
Aging of trade receivables, gross:		
Up to 30 days	2,807	2,613
Between 30 and 90 days	43	35
More than 90 days	172	120
Trade receivables, gross, at December 31	3,022	2,768
Changes in allowances for trade receivables:		
At January 1	162	226
Allowances during the year	15	48
Write-offs during the year	(4)	(90)
Reversed allowances	(15)	(22)
Allowances at December 31	158	162

Trade receivables

In 2018, the change in allowances for trade receivables included a write-off related to the unrecoverable part of our receivable related to Beta Renewables S.p.A. The write-off was a consequence of the financial restructuring of part of the M&G Group.

Novozymes has collateral held as security for trade receivables in selected countries of DKK 32 million (2018: DKK 68 million).

Contract assets

Contract assets amounted to DKK 243 million at the end of 2019 (2018: DKK 279 million), and mainly related to the estimated profit split arising from partnerships that Novozymes has entered into.

The contract assets are initially recognized as revenue when goods are delivered to the other contracting party. When the realized profit split is invoiced, the contract assets are reclassified to trade receivables.

No allowance for expected credit losses had been made for contract assets at the end of 2019 (2018: no allowance).

! CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

The allowance for expected credit losses for trade receivables and contract assets is based on historical credit loss experience combined with forward-looking information on macroeconomic factors affecting the credit risk. The expected loss rates are updated at each reporting date.

§ ACCOUNTING POLICIES

Trade receivables and contract assets are measured at amortized cost less allowance for lifetime expected credit losses.

To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and days past due. Furthermore, an allowance for lifetime expected credit losses for trade receivables is recognized on initial recognition.

As the contract assets relate to the partnerships, the credit risk is based on an individual assessment.

Trade receivables and contract assets are written off when all possible options have been exhausted and there is no reasonable expectation of recovery.

The cost of allowances for expected credit losses and write-offs for trade receivables and contract assets are recognized in Sales and distribution costs.

Net working capital

4.3 Other receivables

DKK million		2019	2018
Deposits		26	24
Prepaid expenses		102	100
Other		170	129
Other receivables at December 31		298	253
Recognized in the balance sheet as follows:			
Non-current	B/S	29	34
Current	B/S	269	219
Other receivables at December 31		298	253

4.4 Contract liabilities

DKK million		2019	2018
The BioAg Alliance, deferred revenue		-	311
Other contract liabilities		74	63
Contract liabilities at December 31		74	374
Recognized in the balance sheet as follows:			
Non-current	B/S	-	199
Current	B/S	74	175
Contract liabilities at December 31		74	374
Expected to be recognized in the income statement:			
Within 1 year		74	175
Between 1 and 5 years		-	199
After 5 years		-	-
Contract liabilities at December 31		74	374

Up until April 4, 2019, Novozymes recognized DKK 24 million of the deferred revenue from The BioAg Alliance as planned. Due to the termination of The BioAg Alliance, the outstanding DKK 287 million has been recognized in Other operating income.



CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Assessing the earnings process and the underlying deliverables for The BioAg Alliance requires judgment and is based on estimates of the future. These estimates are by nature subject to a high degree of uncertainty, and changes in such estimates may impact the timing of revenue recognition in future periods. Due to the termination of The BioAg Alliance, the estimate related to The BioAg Alliance will not be relevant going forward.

Net working capital

4.5 Other liabilities

DKK million		2019	2018
Employee costs payable		732	712
Stock-based payment settled in cash		16	11
Deferred income		30	50
Other payables		633	625
Other liabilities at December 31	B/S	1,411	1,398
Recognized in the balance sheet as follows:			
Non-current	B/S	-	37
Current	B/S	1,411	1,361
Other liabilities at December 31		1,411	1,398

4.6 Assets held for sale

DKK million		2019	2018
Carrying amount of non-current assets held for sale:			
Land and buildings		62	-
Total	B/S	62	-

Assets held for sale comprises buildings that are expected to be sold within the next 12 months. The sale of buildings is a consequence of the organizational changes announced in August 2019, and the relocation to the new Innovation Campus in Lyngby.

§ ACCOUNTING POLICIES

Non-current assets are classified as assets held for sale when their carrying amounts are to be recovered principally through a sale transaction and a sale is considered highly probable.

Such assets are stated at the lower of carrying amount and fair value less costs to sell.

Capital structure and financing



Net interest-bearing debt

DKK million	Note	2019	2018
Cash and cash equivalents		(711)	(723)
Credit institutions	5.3	4,086	3,258
Transitional holiday accrual	5.3	58	-
Non-current lease liabilities		453	-
Current lease liabilities		163	-
Net interest-bearing debt (NIBD) at December 31		4,049	2,535

NIBD/EBITDA

0.8x

Return on equity down from 28.4%
to

27.5%

**Novozymes bought back 6.6
million B shares under the stock
buyback program at an aggregate
transaction value of DKK million**

2,000

5.1 Financial risk factors and risk management

Due to the international nature of Novozymes' operations, our earnings and financial position are exposed to a number of financial risk factors. Financial risks are managed centrally for the entire Group. The Treasury Policy is approved by the Board of Directors, and sets the limits for the various financial risks and the derivatives used to hedge risk. The Treasury Policy is adjusted on an ongoing basis to adapt to the market situation, and contains rules on which derivatives can be used for hedging, which counterparties can be used and the risk profile that is to be applied.

Currency risk

Currency risk arises due to imbalances between income and costs in each individual currency and because Novozymes has more assets than liabilities in foreign currencies in connection with global operations.

Hedging of currency risk is carried out in the currencies in which Novozymes has the largest exposure. The hedging is managed by entering into derivatives such as forward contracts, currency options and swaps. Loans and deposits in foreign currencies are also utilized for hedging purposes. Hedge effectiveness is assessed on a regular basis by comparing changes in the timing and value of the expected exposure in the relevant currencies with the timing and value changes for the designated cash flow-hedging transaction.

Where deemed appropriate, currency risk related to net investments in foreign subsidiaries is hedged by taking out loans and entering into swaps. Currently, there are no open transactions used to hedge equity investments.

Foreign exchange sensitivity – 2019

The sensitivity analysis below shows the impact on net profit and other comprehensive income of a 5% change in DKK versus the key currencies to which Novozymes was exposed on December 31, 2019. For other comprehensive income, the analysis shows the impact on currency translation of net investments and does not include the impact of cash flow hedges, as these relate to future commercial transactions.

The sensitivity analysis reflects the transaction and translation risk, and assumes that the exchange rates change on December 31, 2019, while all other variables remain constant. The table shows the effect of an increase in exchange rates. A decrease in the exchange rate would have the opposite effect.

Foreign exchange sensitivity – 2020 estimate

Operating profit (EBIT) is exposed to currency changes, as the effect of hedges is included in financial income/costs. EBIT is mainly exposed to the USD and EUR. A movement of 5% in the USD/DKK exchange rate would result in a change in the expected EBIT for 2020 of around DKK 130-160 million (2019: DKK 130-160 million). A 5% movement in the EUR/DKK exchange rate would result in a change in expected EBIT for 2020 of around DKK 200 million (2019: DKK 200 million). Of the expected USD cash flows for 2020, 75% has been hedged by forward contracts at an average rate of DKK 6.53. As a result, the impact on net profit from changes in the USD/DKK exchange rate has been reduced significantly compared with the impact on EBIT.

Foreign exchange analysis

DKK million	Increase in exchange rates	2019		2018	
		Change in net profit	Change in other comprehensive income	Change in net profit	Change in other comprehensive income
CHF	5.0%	-	54	(1)	59
CNY	5.0%	(4)	112	(2)	116
USD	5.0%	(1)	250	2	236
Other	5.0%	7	70	(1)	90
Total		2	486	(2)	501

5.1 Financial risk factors and risk management (continued)

Interest rate risk

Interest rate risk arises in relation to interest-bearing assets and liabilities. In accordance with Novozymes' Treasury Policy, a minimum of 30% of loans must be at fixed interest rates. Hedging of the interest rate risk is managed by entering into fixed-rate loans and interest rate swaps.

With the current hedging of interest rate risk, an increase of 1 percentage point in the average interest rate on Novozymes' net interest-bearing debt would have a negative effect on net profit of DKK 10 million (2018: negative effect of DKK 8 million). At December 31, 2019, 59% (2018: 62%) of the loan portfolio was at fixed interest rates.

Credit risk

Credit risk arises especially on cash and cash equivalents, derivatives, trade receivables and contract assets. The credit risk on trade receivables and contract assets is countered by thorough, regular analysis based on customer type, country and specific conditions. The credit risk on cash and cash equivalents as well as derivatives is mitigated by the Treasury Policy, which limits exposure solely to counterparties that have an investment-grade credit rating. The credit risk is calculated on the basis of net market values and is governed by the Treasury Policy. Novozymes has entered into netting agreements (ISDA or similar) with all the banks used for trading in financial instruments, which means that Novozymes' credit risk is limited to net assets.

At December 31, 2019, the Group considered its maximum credit risk to be DKK 4,051 million (2018: DKK 3,795 million), which is the total of the Group's financial assets. At December 31, 2019, the maximum credit risk related to a single counterparty was DKK 279 million (2018: DKK 308 million).

Liquidity risk

In connection with the Group's ongoing financing of operations, including refinancing, efforts are made to ensure adequate and flexible liquidity. This is guaranteed by using committed credit facilities and placing free funds in deposits, government bonds or ultra-liquid mortgage bonds in accordance with the Treasury Policy.

At December 31, 2019, Novozymes' financial resources amounted to DKK 4,174 million (2018: DKK 4,023 million), consisting of net cash and cash equivalents, overdraft facilities and undrawn committed credit facilities of DKK 3,758 million, which expire in 2020-2023.

With the exception of debt to credit institutions, the maturity dates are primarily within one year.

5.2 Financial income and Financial costs

DKK million	2019	2018
Interest income	90	10
Gains on fair value hedges	22	26
Fair value adjustments of cash-settled stock options	-	11
Financial income	112	47
Interest costs	(58)	(13)
Interest on lease liabilities	(28)	-
Losses on cash flow hedges	(164)	(42)
Other financial costs	(29)	(22)
Other foreign exchange losses, net	(63)	(73)
Write-down of financial asset	-	(14)
Fair value adjustments of cash-settled stock options	(5)	-
Financial costs	(347)	(164)
Financial income/(costs), net	(235)	(117)



ACCOUNTING POLICIES

Financial income and Financial costs comprise interest income and interest costs, realized and unrealized foreign exchange gains and losses, as well as fair value adjustments of cash-settled stock-based incentive programs, which are offset against Other liabilities and fair value adjustments of Other financial assets.

Financial income and Financial costs also include fair value adjustments of derivatives used to hedge assets and liabilities, and income and costs relating to cash flow hedges that are transferred from Other comprehensive income on realization of the hedged item.

Capital structure and financing

5.3 Other financial liabilities

DKK million		2019	2018
Credit institutions		4,086	3,258
Derivatives		42	115
Transitional holiday accrual		58	-
Other financial liabilities at December 31		4,186	3,373
Recognized in the balance sheet as follows:			
Non-current	B/S	2,775	1,474
Current	B/S	1,411	1,899
Other financial liabilities at December 31		4,186	3,373

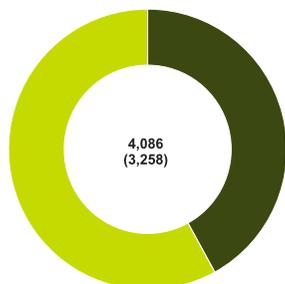
Liabilities arising from financing activities

DKK million	2019			2018	
	Credit institutions	Lease liabilities	Total	Credit institutions	Total
Liabilities from financing activities at January 1	3,258	-	3,258	2,274	2,274
Lease liabilities at January 1, 2019	-	708	708	-	-
Financing cash flows	828	(108)	720	978	978
Foreign exchange adjustments	-	9	9	6	6
Other changes*	-	7	7	-	-
Total liabilities from financing activities at December 31	4,086	616	4,702	3,258	3,258

*Other changes include changes in lease liabilities from new or terminated leases and accrued interest expenses which will be presented as operating cash flows in the statement of cash flows when paid.

Credit institutions – currency 2019 (2018)

DKK million

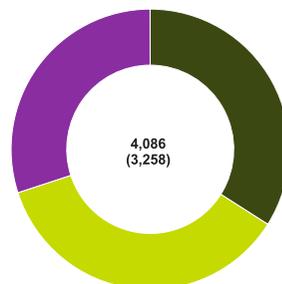


● EUR **1,719** (1,477)
● Other **2,367** (1,781)

Novozymes A/S

Credit institutions – time to maturity 2019 (2018)

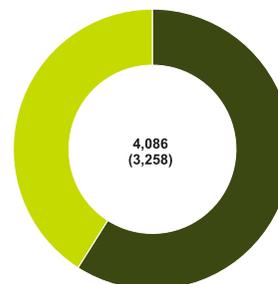
DKK million



● Less than 1 year **1,380** (1,789)
● Between 1 and 5 years **1,477** (996)
● More than 5 years **1,229** (473)

Loan portfolio – fixed or floating interest rate 2019 (2018)

DKK million



● Fixed interest rate **2,396** (1,808)
● Floating interest rate **1,690** (1,450)

5.4 Derivatives – hedge accounting

Fair value hedges

The table below shows the derivatives the Group has contracted in order to hedge currency exposure on financial assets and liabilities that give rise to currency adjustments in the income statement.

DKK million	2019		2018	
	Contract amount based on agreed rates*	Fair value Dec. 31	Contract amount based on agreed rates*	Fair value Dec. 31
Forward exchange contracts				
CAD	(25)	-	(343)	(9)
CHF	(1,153)	9	(1,351)	12
USD	(333)	-	182	-
INR	371	-	262	(14)
Other	(21)	(2)	(26)	1
Fair value hedges at December 31	(1,161)	7	(1,276)	(10)

* Positive contract amounts represent a sale of the respective currency, and negative amounts represent a purchase.

The forward exchange contracts fall due in the period January 2020 to June 2020 (2018: January 2019 to June 2019).

The fair value hedges were 100% effective, as the gain on forward exchange contracts was DKK 22 million (2018: gain of DKK 26 million),

compared with a loss on hedged items of DKK 22 million (2018: loss of DKK 26 million).



ACCOUNTING POLICIES

Hedge accounting consists of positive and negative fair values of derivatives, which are recognized in the balance sheet under Other financial assets and Other financial liabilities respectively.

Derivatives used for fair value hedges are measured at fair value on the reporting date, and value adjustments are recognized as Financial income or Financial costs.

Derivatives used for cash flow hedges and hedges of net investments in subsidiaries are measured at fair value on the reporting date, and value adjustments are recognized in Other comprehensive income.

Income and costs relating to cash flow hedges and hedges of net investments in subsidiaries are transferred from Other comprehensive income on realization of the hedged item and are recognized as Financial income or Financial costs.

Derivatives are recognized at the transaction date.

5.4 Derivatives – hedge accounting (continued)

Cash flow hedges

The table below shows the derivatives that the Group has contracted to hedge currency and interest rate exposure in future cash flows.

DKK million	2019		2018	
	Contract amount based on agreed rates*	Fair value Dec. 31	Contract amount based on agreed rates*	Fair value Dec. 31
Forward exchange contracts				
USD	1,764	(24)	2,235	(82)
	1,764	(24)	2,235	(82)
Interest rate swaps				
EUR/EUR – (2018: Pays fixed rate of 3.58% / earns variable rate of (0.271%))	-	-	112	(4)
DKK/DKK – pays fixed rate of (0.1075%) / earns variable rate of (0.3933%)	400	1	-	-
DKK/DKK – pays fixed rate of 0.595% / earns variable rate of (0.27%) (2018: (0.15%))	451	(11)	521	(5)
	851	(10)	633	(9)
Cash flow hedges at December 31	2,615	(34)	2,868	(91)

* Positive contract amounts represent a sale of the respective currency, and negative amounts represent a purchase.

The forward exchange contracts fall due in the period January 2020 to December 2020 (2018: January 2019 to December 2019), and the swaps fall due in May 2026 and December 2026 (2018: July 2019 and May 2026).

At the end of 2019, the Group had hedged 75% of expected future cash flows in USD for 2020 at an average rate of DKK 6.53 (2018: 100% of expected future cash flows in USD for 2019 at an average rate of DKK 6.21).

5.5 Common stock and treasury stock

	2019		2018	
	No.	Nominal value DKK million	No.	Nominal value DKK million
Common stock				
A common stock (shares of DKK 2)	53,743,600	107	53,743,600	107
B common stock (shares of DKK 2)	237,256,400	475	243,256,400	487
Common stock at December 31	291,000,000	582	297,000,000	594
Treasury stock - B stock				
Treasury stock at January 1	9,405,806	19	12,051,096	24
Additions during the year	6,591,413	13	6,167,092	13
Disposals during the year	(333,902)	(1)	(812,382)	(2)
Cancellation of common stock	(6,000,000)	(12)	(8,000,000)	(16)
Treasury stock at December 31	9,663,317	19	9,405,806	19

No.	2019	2018
Shares of common stock in circulation		
Shares of stock at January 1	287,594,194	292,948,904
Purchase of treasury stock	(6,591,413)	(6,167,092)
Sale of treasury stock	333,902	812,382
Shares of common stock in circulation at December 31	281,336,683	287,594,194

Each A share entitles the holder to 20 votes, while each B share entitles the holder to two votes.

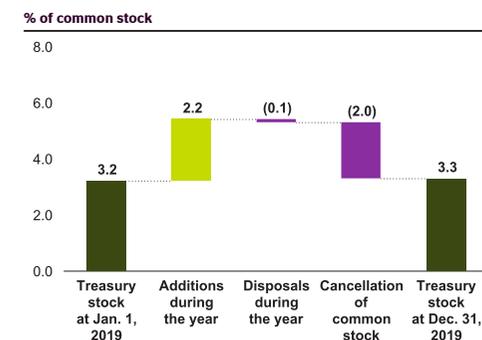
Each year, the Board of Directors assesses whether the ownership structure with A and B common stock is optimal. The Board of Directors maintains that this is the best way to

safeguard Novozymes' long-term development to the benefit of the company's shareholders and other stakeholders.

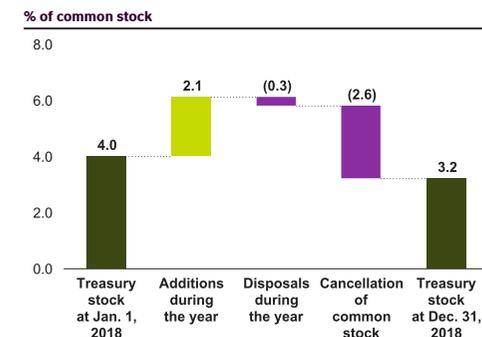
Treasury stock is used to reduce the common stock and to hedge employees' exercise of granted stock awards and stock options.

In 2019, Novozymes canceled 6 million treasury shares, reducing the common stock to 291 million shares.

Treasury stock 2019



Treasury stock 2018



5.6 Financial assets and liabilities by category

The table below shows the Group's financial assets and financial liabilities at December 31 by category.

DKK million	Note	2019	2018
Trade receivables	4.2	2,864	2,606
Contract assets	4.2	243	279
Other receivables, excl. prepaid expenses	4.3	196	153
Cash and cash equivalents		711	723
Financial assets at amortized cost		4,014	3,761
Other financial assets		22	20
Fair value through profit and loss		22	20
Derivatives		15	14
Fair value through other comprehensive income		15	14
Financial assets		4,051	3,795
Lease liabilities	5.3	(616)	-
Credit institutions	5.3	(4,086)	(3,258)
Trade payables		(1,117)	(1,418)
Transitional holiday accrual	5.3	(58)	-
Other payables	4.5	(633)	(625)
Financial liabilities at amortized cost		(6,510)	(5,301)
Derivatives	5.3	(42)	(115)
Fair value through other comprehensive income		(42)	(115)
Financial liabilities		(6,552)	(5,416)

Measurement and fair value hierarchy

All financial assets and liabilities, except for derivatives and other financial assets, are measured at amortized cost. The carrying amounts for these approximate fair value. Derivatives are measured at fair value based on observable data (level 2 input) according to the fair value hierarchy. The derivatives are not traded on an active market based on quoted prices, but are individual contracts. The fair value of these assets is determined using valuation techniques that utilize market-based data such as exchange rates, interest rates, credit risk and volatilities. Other financial assets are measured at fair value based on non-observable data (level 3 input). There are no financial instruments measured at fair value on the basis of quoted prices (level 1 input).

Other financial notes

This section contains other statutory disclosures not related to the previous sections.



Realized target achievement
under the three-year Executive
Leadership Team incentive
program

61%

Realized Group audit fee ratio
during 2019

0.63

No. of Danish and foreign
subsidiaries in the Group

44

6.1 Management remuneration

DKK million	2019			2018		
	Executive Leadership Team	Board of Directors	Total	Executive Leadership Team	Board of Directors	Total
Salaries and other short-term benefits	37	7	44	41	8	49
Defined contribution plans	8	-	8	10	-	10
Expensed stock-based incentive programs	11	-	11	43	-	43
Severance cost	58	-	58	-	-	-
Remuneration	114	7	121	94	8	102
Total remuneration for registered Executive Management excluding severance cost*	29		29	55		55

* Registered as of December 31.

General guidelines for the remuneration of the Board of Directors and the Executive Leadership Team of Novozymes A/S, assessed by the Board of Directors according to the recommendations of the Nomination and Remuneration Committee, are approved at the Annual Shareholders' Meeting. Detailed information on Management remuneration is available in the Remuneration report found in the Governance section.

Executive Leadership Team

Remuneration of the Executive Leadership Team comprises a base salary, pension contribution, a cash bonus (short-term incentive program), stock-based incentive programs (long-term incentive programs) and other benefits (car, telephone, etc.). The variable components of the total remuneration (cash bonus and stock-based incentive programs) are relatively high compared with the base salary and is subject to the achievement

of individual targets and Novozymes' targets for financial, social and environmental performance. The maximum annual cash bonus is equivalent to five months' fixed base salary plus pension contributions. The stock-based incentive programs are described in Note 6.2.

Members of the Executive Leadership Team have contracts of employment containing standard conditions for executive officers of Danish listed companies, including the periods of notice that both parties are required to give and noncompetition clauses. If an executive officer's contract of employment is terminated by the company without any misconduct on the part of the executive officer, the executive officer has a notice period of 12 months. In addition to the notice period, the executive officer has a right to termination compensation of 12 months' base salary and pension contributions. However executive officers appointed before 2016 have a right to

compensation of up to two year's base salary and pension contributions.

Board of Directors

The remuneration of the Board of Directors comprises a fixed fee and is not based on incentives.

Changes to the Executive Leadership Team

In August 2019, Novozymes appointed a new Chief Financial Officer, Lars Green, who joined the Executive Leadership Team on September 1, 2019. Lars Green replaced former CFO Prisca Havranek-Kosicek, who left Novozymes in August 2019. Prisca Havranek-Kosicek's severance package totalling DKK 16 million was fully expensed in 2019. The severance package consists of salary and bonuses during the notice period (12 months) as well as termination compensation (12 months), and compensation for not being part of a stock-based incentive program in 2020. Furthermore,

the remaining value of awarded stock and stock options has been expensed, DKK 4 million.

In November 2019, Novozymes announced the appointment of a new Chief Executive Officer, Ester Baiget, who will join Novozymes on February 1, 2020. Ester Baiget replaces CEO Peder Holk Nielsen, who will leave Novozymes at the end of January 2020. Peder Holk Nielsen's severance package totaling DKK 32 million was fully expensed in 2019. The severance package consists of salary and bonuses during the notice period (12 months) as well as termination compensation (11 months), and compensation for not being part of a stock-based incentive program in 2020. Furthermore, the remaining value of awarded stock and stock options has been expensed, DKK 6 million.

6.2 Stock-based payment

Novozymes has established stock-based incentive programs for the Executive Leadership Team, vice presidents and directors, and other employees. The purpose of these programs is to ensure common goals for Management, employees and shareholders. Allocation of programs has been, and remains, dependent on profit, value-creation and, in some cases, sustainability targets being achieved. The exercise price and the share price of a stock option are identical at the date of grant.

In 2017, a three-year incentive program for the Executive Leadership Team was established, covering the period 2017-2019. The program was a combination of stock options and stock, with half of the incentive program allocated in stock and half in stock options. The stock options were awarded annually in 2017, 2018 and 2019, while the stock was allocated in 2017 and will be released in 2020. The accumulated economic profit generated in the three-year period was DKK 6.8 billion, resulting in 81% of the economic profit pool (75% of the total program) being awarded. Average organic sales growth during the three-year period was less than 3%. Hence no stock or stock options were awarded under the sales growth pool (25% of the total program). In total 61% of the program is being awarded, which means that a total of 174,260 shares will be released in January 2020 including shares purchased using dividends accumulated during the three-year period.

The number of stock options granted over the three-year period has been reduced by 591,251 stock options to reflect the realized target achievement of 61%.

The program contains a maximum-value clause, allowing the Board of Directors to choose to limit the total allocation of stock and stock options if the intrinsic value of the program exceeds DKK 280 million at the end of the program. The maximum-value clause has been adjusted to reflect the change of CFO. However, there will be no limitation on the total allocation, as the intrinsic value is DKK 101 million for the current Executive Leadership Team.

The total fair value of the program at grant date was DKK 162 million. Based on the lower realized level of target achievement, the value of the program has been reduced to DKK 85 million. The value of the stock has been expensed over the three-year qualifying period (2017-2019). The stock options have a vesting period of four years, followed by an exercise period of five years. The fair value of the stock options will be expensed over a four-year period for each of the qualifying years (2017-2019).

Furthermore, three-year programs were established in 2017 for vice presidents and directors covering the period 2017-2019 (182 vice presidents and directors). The total fair value at grant date was DKK 175 million. The value of the stock has been expensed over the

three-year qualifying period (2017-2019). The stock options have a vesting period of four years, followed by an exercise period of five years. The program for the vice presidents followed the same mechanisms as the program for the Executive Leadership Team. 61% of the program was awarded to vice presidents. The program for directors is a stock option program with the same targets for sales and economic profit as the incentive program for the Executive Leadership Team. Furthermore, there were awards linked to EBIT and sustainability targets. 55% of the program was awarded to directors. The total awards under the programs have an intrinsic value of DKK 117 million, thereby less than the maximum value clause of DKK 350 million. The final number of stocks allocated under these programs to be released in January 2020 is 133,002.

In previous years, stock option programs were established for all or selected groups of employees, conferring the right to purchase one share per stock option. Allocations were made on the basis of the individual employee's base salary and achievement of a series of business targets – both financial and nonfinancial – set by the Board of Directors for each year. The stock options have a vesting period of three to four years, followed by an exercise period of five years. In order to exercise the options, the employee must still be employed on the exercise date. This does not apply to persons who have retired, taken voluntary early retirement or been given notice.



ACCOUNTING POLICIES

The Group has established stock-based incentive programs comprising equity-settled and cash-settled programs.

The fair value of the employee services received in exchange for the grant of stock options and stock awards is measured with reference to the fair value of the stock options and stock awards granted. The fair value is measured using the Black-Scholes option-pricing model.

The fair value of stock-based payment at the grant date is recognized as an employee cost over the period in which the stock options vest. In measuring the fair value, account is taken of the number of employees expected to gain entitlement to the options as well as the number of options the employees are expected to gain. This estimate is adjusted at the end of each period such that only the number of options to which employees are entitled or expected to be entitled is recognized.

The value of equity-settled programs is recognized in Shareholders' equity. The value of cash-settled programs, which are recognized as Other liabilities, is adjusted to fair value at the end of each period, and the subsequent adjustment in fair value is recognized in the income statement under Financial income or Financial costs.

Other financial notes

6.2 Stock-based payment (continued)

Stock options

The number of outstanding options (excl. stock awards) has developed as follows:

	Number of options				DKK		DKK million
	Executive Leadership Team	Vice presidents and directors	Other employees	Total	Avg. exercise price per option	Grant date fair value per option	Grant date fair value total
Outstanding at January 1, 2019	1,934,249	4,165,211	1,871,253	7,970,713	266		
Change in Management	(62,626)	62,626	-	-			
Granted	602,535	1,102,730	-	1,705,265	275	40	69
Allocation adjustment ¹	(591,251)	(1,131,136)	-	(1,722,387)	275		
Exercised ²	-	(269,842)	(78,703)	(348,545)	227		
Forfeited	-	(27,287)	(35,731)	(63,018)	277		
Outstanding at December 31, 2019	1,882,907	3,902,302	1,756,819	7,542,028	267		
Outstanding at January 1, 2018	1,535,250	4,096,296	2,161,945	7,793,491	253		
Granted	497,697	745,908	-	1,243,605	301	51	64
Allocation adjustment	-	(501)	-	(501)	293		
Exercised	(98,698)	(579,856)	(199,713)	(878,267)	209		
Forfeited	-	(96,241)	(76,325)	(172,566)	264		
Expired	-	(395)	(14,654)	(15,049)	89		
Outstanding at December 31, 2018	1,934,249	4,165,211	1,871,253	7,970,713	266		
Number of exercisable options at December 31, 2019				3,215,513	258		
Number of exercisable options at December 31, 2018				1,990,159	218		

1. The allocation of stock options for 2017-2019 has been reduced based on the realized level of target achievement for the period (Executive Leadership Team and vice presidents: 61% and Directors: 55%).

2. The weighted average share price for stock options exercised during 2019 was DKK 316 (2018: DKK 340).

	2019			2018		
	Remaining term to maturity of up to five years	Remaining term to maturity of over five years	Total	Remaining term to maturity of up to five years	Remaining term to maturity of over five years	Total
Stock options outstanding	No.	5,015,210	2,526,818	3,573,318	4,397,395	7,970,713
Weighted average term to maturity	Years	4	7	4	7	6
Range of exercise prices	DKK	160-317	249-335	157-317	249-335	157-335
Average exercise price	DKK	264	275	255	274	266

6.2 Stock-based payment (continued)

During 2019, DKK 46 million arising from stock-based payment was recognized in the income statement (2018: DKK 100 million), DKK 45 million of which was from equity-settled programs (2018: DKK 97 million) and DKK 1 million was from cash-settled programs (2018: DKK 3 million). The amount includes DKK 10 million related to the remaining total costs from outstanding programs, which was recognized in connection with the announced change of CEO and CFO. The amount recognized in 2019 is impacted by an adjustment to the lower realized target achievement.

Most programs are equity settled, and no liability is recognized for these. If allocations under the programs are made in countries where ownership of foreign stock is not permitted, the value of stock options is settled in cash instead, and a liability of DKK 16 million was recognized for this in 2019 (2018: DKK 11 million). The intrinsic value of exercisable cash-settled programs in 2019 was DKK 14 million (2018: DKK 6 million).

The fair value of employee services received is measured with reference to the fair value of the equity instruments granted. Fair value at grant date is measured in accordance with the Black-Scholes model, using the average exercise price, the option term and the following significant assumptions:

		2019	2018
Expected future dividends per share	DKK	37.4	34.1
Volatility	%	23.2	23.9
Annual risk-free interest rate	%	0.0	0.3
Weighted average share price at grant date	DKK	275	301

Furthermore, the options are assumed to be exercised two years after the vesting period, on average, or at the option's expiry date if this is within one year. Volatility is estimated using the historical volatility over the last three years. The risk-free interest rate is based on Danish government bonds with a maturity equivalent to the option's term to maturity.

Stock awards

The stock allocated under the three-year programs is stock awards. The majority of the stocks was allocated in 2017. In 2019, 11,428 stock awards with a fair value of DKK 3 million were granted to new employees enrolled in the programs (2018: DKK 12 million).

The total number of outstanding stock awards at December 31, 2019 was 307,262 (2018: 495,005). The number has been reduced in 2019, as a consequence of the lower level of realized target achievement. The fair value of these at December 31, 2019 was DKK 100 million (2018: DKK 144 million), which was expensed over the three-year period (2017-2019).

Other financial notes

6.3 Commitments and contingencies

DKK million	2018
Recognized in the income statement in respect of rentals	127
Rental commitments expiring within the following periods from the reporting date:	
Less than 1 year	119
Between 1 and 2 years	89
Between 2 and 3 years	62
Between 3 and 4 years	49
Between 4 and 5 years	43
After 5 years	144
Rental commitments at December 31, 2018	506

As of January 1, 2019, DKK 506 million from operating lease commitments was recognized as Lease liabilities. Refer to Note 1.2 and Note 3.3 for a description of the impact of the implementation of IFRS 16.

The above rental commitments relate to noncancelable operating leases, primarily for buildings and offices.

DKK million	2019	2018
Other commitments		
Contractual obligations to third parties relating to property, plant and equipment	200	171
Other guarantees		
Other guarantees and commitments to related companies	27	26
Other guarantees and commitments	242	332

Pending litigation and arbitration

Novozymes is engaged in certain legal cases. In the opinion of the Board of Directors and the Executive Leadership Team, settlement or continuation of these cases will not have a significant effect on the Group's financial position. A liability is recognized under Provisions where the risk of a loss on a legal case is considered more likely than not.

Contract conditions

Several of the partnership contracts to which Novozymes is a party may be terminated by the other party in the event of significant changes concerning ownership or control of Novozymes. Furthermore, a few contracts contain provisions that restrict Novozymes' licenses to use specific forms of technology in such situations.

Novozymes is committed to increasing production capacity in Latin America if a specific customer reaches certain milestones. The amount required to meet this commitment cannot be estimated reliably at the moment.

Other financial notes

6.4 Related party transactions

Novozymes A/S is controlled by Novo Holdings A/S, domiciled in Hellerup, Denmark, which holds 72.0% of the votes in Novozymes A/S. The remaining stock is widely held. The ultimate parent of the Group is the Novo Nordisk Foundation (incorporated in Denmark).

Related parties are considered to be Novo Holdings A/S and the Novo Nordisk Foundation, and the Board of Directors and Executive Management of these entities together with their immediate families. Other related parties are considered to be the Novo Nordisk Foundation's subsidiaries and associates, such as the Novo Nordisk Group,

the NNIT Group and the Chr. Hansen Group, associates of Novozymes A/S, as well as the Board of Directors and Executive Leadership Team of Novozymes A/S together with their immediate families. Related parties also include companies where the above persons have control or joint control.

All agreements relating to these transactions are based on market price (arm's length). The majority of the agreements are renegotiated regularly. The Group had the following transactions with related parties:

Transactions

DKK million	2019	2018
The Novo Nordisk Group		
Sale of goods and materials	26	36
Sale of services	77	85
Purchase of goods and materials	(64)	(64)
Purchase of services	(68)	(51)
The NNIT Group		
Purchase of services	(27)	(32)
The Chr. Hansen Group		
Sale of goods and materials	53	82
Purchase of services	(9)	(26)

In 2019, Novozymes purchased from Novo Holding 1,530,000 of its own B shares with the approval of the Board of Directors, at a price of DKK 475 million. The transaction was based on the market price.

There were no transactions with related parties other than the transactions described and normal remuneration of the Board of Directors and Executive Leadership Team, which is presented in Note 6.1.

Outstanding balances

DKK million	2019	2018
The Novo Nordisk Group		
Receivables	9	35
Payables	(98)	(109)
The NNIT Group		
Payables	(7)	(5)
The Chr. Hansen Group		
Receivables	11	18
Payables	-	(3)

Rental commitments to related parties at December 31, 2019 amounted to DKK 14 million, compared with DKK 15 million at December 31, 2018.

Other financial notes

6.5 Fees to statutory auditors

DKK million	2019	2018
Statutory audit	8	8
Other assurance engagements	-	-
Tax assurance services	4	5
Other services	1	1
Fees to statutory auditors	13	14
Group audit fee ratio	0.63	0.75

Audit fee policy

It is Novozymes' policy that the annual fee for nonaudit services provided by the statutory auditors should not exceed the annual fee for statutory audit services measured at Group level. The Group audit fee ratio may only exceed 1 with the approval of the Audit Committee.

In 2019 and 2018 no such approvals were given.

Implementation of the EU audit reform has led to restrictions on the nonaudit services that the auditors elected at the Annual Shareholders' Meeting may perform. The fee for nonaudit services performed for Novozymes by PricewaterhouseCoopers Statsautoriseret Revisionspartnerselskab is DKK 2 million (2018: DKK 2 million) and comprises audit of project accounts, tax advisory services

concerning transfer pricing, and other general financial reporting and tax consultancy. None of the nonaudit services performed are prohibited.

Other financial notes

6.6 Cash flow

DKK million	Note	2019	2018
Non-cash items			
Accrued interest income and interest costs		(3)	3
(Gain)/loss on financial assets, etc., net		5	10
Depreciation, amortization and impairment losses	3.1, 3.2	1,182	1,088
Realized loss and allowances for doubtful trade receivables		(1)	23
Financial (gain)/loss on sale and disposal of assets		50	3
Unrealized foreign exchange (gain)/loss		10	125
Tax	2.6	644	709
Stock-based payment	6.2	46	100
Change in provisions		(88)	(16)
Termination of The BioAg Alliance		(335)	-
Divestment of the pharma-related royalty		(194)	-
Profit/loss in associates		5	17
Non-cash items		1,321	2,062
Business acquisitions, divestments and purchases of financial assets			
Divestment of the pharma-related royalty		430	-
Other acquisitions and purchase of financial assets		-	(4)
Cash flow from acquisitions, net		430	(4)
Additions of intangible assets	3.1	230	60
Intellectual property transferred from The BioAg Alliance	3.1	(95)	-
Purchase of intangible assets		135	60
Additions of property, plant and equipment	3.2	909	1,424
Additions to lease assets	3.3	(47)	(92)
Purchase of property, plant and equipment		862	1,332

Undrawn committed credit facilities were DKK 3,758 million at December 31, 2019 (2018: DKK 3,646 million), all of which expire in 2020-2023.

§ ACCOUNTING POLICIES

The consolidated statement of cash flows, which is compiled using the indirect method, shows cash flows from operating, investing and financing activities, and the Group's cash and cash equivalents at the beginning and end of the year.

Cash flow from operating activities comprises net profit adjusted for non-cash items, paid financial items, corporate income tax paid and change in working capital.

Cash flow from investing activities comprises payments relating to the acquisition and sale of companies and non-controlling interests, intangible assets, and property, plant and equipment.

Cash flow from financing activities comprises proceeds from borrowings, repayment of principal on interest-bearing debt, repayment of lease liabilities, payment of dividends, proceeds from stock issues, and the sale of treasury stock and other securities.

Cash and cash equivalents comprises cash at bank and in hand less current bank loans due on demand.

Other financial notes

6.7 Group companies

ISO 14001-certified sites. All major companies are also ISO 9001 certified.

Production	■
Sales & Marketing	□
Research & Development	●
Holding companies, etc.	◆
	○

Parent company	Activity	Percentage of shares owned	Activity	Percentage of shares owned
Novozymes A/S, Denmark	■ □ ● ◆ ○			
Subsidiaries				
Novozymes BioAg S.A., Argentina	■ □ ● ◆	100		
Novozymes Australia Pty. Ltd.*, Australia	●	100		
Novozymes Belgium BVBA*, Belgium	●	100		
Novozymes Latin America Ltda.*, Brazil	■ □ ● ◆	100		
Novozymes BioAg Productos Para Agricultura Ltda., Brazil	□ ●	100		
Novozymes BioAg Limited, Canada	■ □ ● ◆ ○	100		
Novozymes Canada Limited, Canada	■ □ ●	100		
Novozymes (China) Biotechnology Co. Ltd., China	■ □ ●	100		
Novozymes (China) Investment Co. Ltd., China	● ◆ ○	100		
Novozymes (Shenyang) Biologicals Co. Ltd., China	■ □ ●	100		
Suzhou Hongda Enzyme Co. Ltd., China	■ □ ●	96		
Novozymes Bioindustrial A/S*, Denmark		100		○
Novozymes Bioindustrial China A/S*, Denmark		100		○
Novozymes Biopharma DK A/S*, Denmark		100		○
Novozymes BioAg A/S*, Denmark		100		○
Novozymes France S.A.S.*, France	● ◆	100		
Novozymes Berlin, Germany	□ ● ◆	100		
Novozymes Deutschland GmbH*, Germany			● ○	100
Novozymes Hong Kong Ltd., Hong Kong				○
Novozymes South Asia Pvt. Ltd., India			■ □ ● ◆	100
Novozymes Italia S.r.l.*, Italy			●	100
Novozymes Japan Ltd.*, Japan			● ◆	100
Novozymes (Kenya) Limited*, Kenya			●	100
Novozymes Malaysia Sdn. Bhd.*, Malaysia			●	100
Novozymes Mexicana, S.A. de C.V.*, Mexico			●	100
Novozymes Mexico, S.A. de C.V., Mexico			●	100
Novozymes Nederland B.V.*, Netherlands			●	100
Novozymes RUS LLC*, Russia			●	100
Novozymes Singapore Pte. Ltd.*, Singapore				○
Novozymes South Africa (Pty) Ltd.*, South Africa			●	100
Novozymes Korea Limited*, South Korea			●	100
Novozymes Spain S.A.*, Spain			●	100
Novozymes Sweden AB*, Sweden			●	100
Novozymes Switzerland AG, Switzerland			■ ●	100
Novozymes Switzerland Holding AG*, Switzerland				○
Novozymes (Thailand) Limited*, Thailand			●	100
Novozymes Enzim Dis Ticaret Ltd. Sirketi*, Turkey			●	100
Novozymes UK Ltd.*,** , UK			● ◆	100

Other financial notes

6.7 Group companies (continued)

	Activity	Percentage of shares owned		Activity	Percentage of shares owned
Novozymes BioAg, Inc., USA	■ □ ●	100	Joint operations/associates		
Novozymes Biologicals, Inc., USA	■ □ ● ◆	100	Grundejerforeningen Smørmosen*, Denmark		
Novozymes Blair, Inc., USA	■ □	100	Grundejerforeningen Hallas Park*, Denmark		
Novozymes, Inc., USA		100	Microbiogen PTY Ltd.*, Australia		23.10
Novozymes North America, Inc., USA	■ □ ● ◆	100	Beta Renewables S.p.A.*, Italy		9.95
Novozymes US, Inc.*, USA		100	MagnaBioAnalytics LLC, USA		19.35

* Owned directly by Novozymes A/S.

** Novozymes A/S has guaranteed the liabilities of Novozymes UK Limited (company number: 1328873) in order that it qualify for the exemption from preparing individual financial statements under Section 479A of the Companies Act 2006 in respect of the year ended December 31, 2019.

Environmental data

We measure our performance in areas where we believe we have significant impact on the environment. Monitoring our environmental data is key to measuring progress against the ambitious goals we have adopted. We have a high focus on reducing Greenhouse Gas (GHG) emissions from our own operations and on being more circular in the use of natural resources by reducing our footprint in other environmental areas like water, energy, waste and biodiversity.



Renewable energy share of total energy consumption

30%

m³ of water saved

262,000

Percentage of biomass waste handled in a circular set-up

97%

7.1 Climate change

Mitigating climate change impacts is material to Novozymes within its operations and throughout the value chain. Climate change action is an integral part of our business strategy, as the transition towards a low-carbon economy offers many opportunities to support the growth of Novozymes' biological solutions. At the same time, issues associated with climate change (regulatory action, physical or reputational damage, etc.) pose multiple risks to Novozymes' supply chain and operations and it is important that we address these risks through appropriate measures.

Our approach

Novozymes' Sustainability Policy and position statement on climate change outlines the company's approach to managing climate-change-related impacts. The Supply Operations and Quality and Sustainability departments are responsible for driving the climate change action agenda, both inside and outside the organization. Within its own operations, Novozymes' efforts to reduce greenhouse gas (GHG) emissions are driven by corporate targets on GHG emissions and energy. In 2019, Novozymes had a target of limiting the annual increase in absolute GHG emissions to levels lower than organic sales growth. The energy-related targets are reported on in note 7.2.

In June 2019, Novozymes launched its updated strategy and released its 2030 climate ambition along with long-term targets to help realize

this ambition. Novozymes has committed to help the world limit global warming increase to 1.5° C by saving 60 million tonnes of CO₂ by enabling low-carbon fuels in the transport sector in 2022. To reduce the negative impact from our operations, we have committed to reduce our absolute Scope 1 & 2 GHG emissions by 50% by 2030 (relative to a 2018 base year) on our way to becoming carbon neutral by 2050. We have also committed to reduce our absolute Scope 3 GHG emissions from purchased goods and services category by 15% by 2030 from a 2018 baseline. To know more about our new climate targets, please refer to the Strategy section and the spotlight article 'The heat is on: Novozymes' ambitious climate commitments' in the Sustainability section.

Since 2004, Novozymes has been conducting peer-reviewed cradle-to-grave life cycle assessment (LCA) studies to document the environmental impact of its biosolutions. The studies are used to inform our stakeholders and to demonstrate to our customers ways to reduce their CO₂ emissions and leverage the positive impact on climate change made possible by Novozymes' solutions. The calculation tools and environmental databases that we use are updated on a regular basis to take into account recent developments in supplying industries as well as process-related efficiency improvements in our own production.

Recent examples of this include the LCA case studies for our JumpStart® and Optimize® products, both of which are Novozymes BioAg solutions that enhance agricultural productivity and reduce environmental footprint. To know more, refer to the spotlight article 'Microbial inoculants support Climate-Smart Agriculture' in the Sustainability section.

In addition, Novozymes continues to support global climate action through transparent climate disclosures, responsible public advocacy and partnerships. Read more about these efforts in the Sustainability section.



ACCOUNTING POLICIES

Reported CO₂ emissions comprise scope 1, scope 2 and emissions from outbound transport of products.

CO₂ from internally generated energy (scope 1) is calculated based on the amount of fuel consumed, using local emission factors.

CO₂ from externally generated energy (scope 2) is reported in accordance with both the market-based and the location-based methods, as defined by the Greenhouse Gas (GHG) Protocol. The location-based method uses annually determined local emission factors from power plants or their organizations. If emission factors are not available, annually determined emission factors from Danish authorities are used.

Transport-related CO₂ emissions (scope 3) are calculated based on principles described in the GHG Protocol. Reported quantities comprise CO₂ emissions related to transport from all primary enzyme production sites to the customer where Novozymes pays for the freight. Transport between production sites is also included. Transport of raw materials to a production site is not included. CO₂ emissions generated at external warehouses are not included. Emissions data are calculated based on distance and emission factors from the GHG Protocol.

The environmental impact potentials for global warming and ozone layer depletion are calculated on the basis of data published by the US Environmental Protection Agency (EPA) and the Montreal Protocol published by the United Nations Environment Programme (UNEP).

7.1 Climate change (continued)

2019 highlights

Novozymes' commitment to make its operations less carbon intensive is based on two levers: implementing various energy efficiency projects and increasing the share of renewable energy in its energy consumption

mix; see Note 7.2 for further details. In 2019, CO₂ emissions (scope 1+2 only) from our operations decreased by 24% to 330,000 tons from 437,000 tons in 2018. Novozymes met its annual target to limit the rise in operational CO₂ emissions to levels lower than organic

sales growth in 2019. This was mainly due to the transition to green electricity at one of our plants in China.

A breakdown of the operational emissions is provided in the table.

In 2019, Novozymes joined the growing list of supporters of the Task Force on Climate Related Financial Disclosures (TCFD) and we are currently investigating its implementation. We are inspired by the TCFD framework and in the coming years we will work towards initiating key activities for managing climate-related issues and improved climate-related disclosures.

We are excited to embark on the journey towards our new climate ambition. Between now and 2030, Novozymes will reduce GHG emissions through improved energy efficiency at its production sites and sourcing 100% renewable electricity. We will also explore opportunities to generate energy from waste streams for use in our operations and to share with our communities. As part of our 1.5° C commitment, we will monitor emissions across the value chain and work with our suppliers to reduce our Scope 3 emissions.

Five-year operational emissions (CO₂-eqv)



CO₂-equivalent emissions

1,000 tons	2019	2018
Natural gas	35	34
Gas oil, light fuel oil and diesel oil	4	3
HCFCs	1	1
Scope 1	40	38
District heat	11	9
Electricity	203	307
Steam	76	83
Scope 2 (market-based)	290	399
Ship	6	5
Truck	17	15
Air freight	12	15
Scope 3	35	35
Emissions, total	365	472

Market-based vs. location-based scope 2 emissions

1,000 tons	2019	2018
Scope 2 CO ₂ emissions (market-based)	290	399
Scope 2 CO ₂ emissions (location-based)	415	452

7.2 Energy

Energy is material to Novozymes across the value chain, as its operations depend on steam and electricity, while many of its biosolutions enable downstream users to save energy in certain applications (e.g. in laundry and dishwashing detergents and textile applications) compared with conventional methods.

Our approach

Novozymes manages energy in its operations through a two-pronged approach: reducing energy use in production by implementing energy-saving projects, and increasing the sourcing of energy from renewables. Relevant targets drive our performance in these areas.

Novozymes' Supply Operations and Sourcing departments manage and monitor all energy efficiency and renewable energy-sourcing efforts.

In the recent strategy update, Novozymes introduced a new target on renewable electricity. Novozymes commits to increase annual sourcing of renewable electricity to 100% by 2030. Read more about our targets in the Strategy section.

Energy consumption by primary source

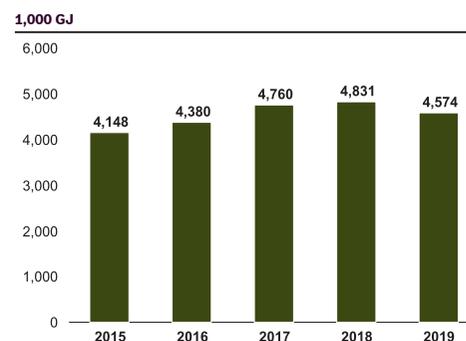
1,000 GJ	2019	2018
Natural gas	656	645
Biogas	70	69
Gas oil, light fuel oil and diesel oil	46	24
Internally generated energy, total	772	738
Electricity – conventional	1,347	1,825
Electricity – renewable	1,315	1,062
District heat	187	175
Steam	953	1,031
Externally purchased energy, total	3,802	4,093
Energy consumption, total ESG	4,574	4,831
Energy production from waste	86	72

2019 highlights

In 2019, Novozymes achieved its annual target of maintaining the increase in energy consumption at a level lower than organic sales growth. Projects driving process optimization and energy efficiency undertaken at our sites throughout the year resulted in energy savings of 20,000 GJ. The savings originated from many projects including the replacement of inefficient pumps, the installation of new and optimized ventilation systems etc.

The table provides details of energy consumed by primary source.

Five-year energy consumption



Energy from renewable sources accounted for 30% (target 28%) of the total energy consumed in 2019, up from 23% in 2018. This was possible as we started procuring renewable energy for our production site in Tianjin, China. We already procure renewable energy for our Danish and Brazilian facilities. Novozymes will continue to seek renewable energy opportunities for all other sites in order to reduce its operational CO₂ footprint and deliver on the 100% renewable electricity commitment.

Going forward, Novozymes plans to replicate the best energy-saving projects at other sites. In regions with fewer opportunities for renewable energy procurement, Novozymes will continue to prioritize investment in energy efficiency projects.

7.2 Energy (continued)

§ ACCOUNTING POLICIES

Net energy consumption includes quantities consumed both in the production process and in other areas, less energy production from Novozymes' waste.

Internally generated energy is measured as fuel consumption converted to energy based on the lower combustion value and weight by volume, except in the US, where legal requirements for reporting of CO₂ state that the higher combustion value is to be applied. Fuel consumption comprises all types of fuels used to produce electricity,

heat and steam on site and is converted to energy using factors supplied by utility providers or local authorities. Fuel for transportation is not included.

Externally generated energy is the input to Novozymes of externally generated electricity, heat and steam.

Energy produced from waste or wastewater is renewable and corresponds to the total energy (heat, electricity or steam) produced by an internal or external utility provider. An example is energy produced from biomass waste or biogas.

Reported quantities are based on meter readings, with the exception of steam, which may be subject to calculation.

The renewable energy percentage is calculated by dividing renewable energy consumed by total energy consumption. Renewable energy used at Novozymes sites comprises energy generated from natural processes and continuously replenished. Sources include solar, wind and hydropower-based electricity and energy from biogas.

Environmental data

7.3 Water

The production of Novozymes' solutions is a water-intensive process and generates a considerable amount of wastewater. Many of the raw materials required in our operations are agriculture-based and water-intensive to produce. In certain product applications such as laundry detergents and textile processing, Novozymes' solutions can enable customers to achieve water savings compared with conventional methods.

In addition, our wastewater treatment solutions can improve processes and the quality of treated water. Therefore, water is material for Novozymes across the entire value chain.

Our approach

Novozyymes' approach to water management is anchored in its Sustainability Policy. We manage water-related risks within our operations by improving water efficiency and ensuring compliance with wastewater discharge regulations at all our sites. Further, wastewater and biomass treatment at our production sites is given high priority. The wastewater is treated internally or externally in biological wastewater treatment systems

before being discharged to a final destination point or used in agriculture for irrigation. All water efficiency and wastewater management efforts are managed by Novozymes' Supply Operations, Quality and Sustainability departments.

Demonstrating a continuing focus on water, Novozymes concluded a third-party water risk assessment for five of its major production sites (covering 87% of production) in 2019. The findings of the assessment gave input to Novozymes' 2030 ambition and strategy on water. Under our updated strategy, we will take a context-based approach to water management in our operations and collaborate more with local communities to manage water as per the local basin conditions. We also have an external target on water which is to reach more than 4 billion people by 2022 through our solutions in laundry that replace chemicals in detergents. Learn more about our new strategy and targets in the Strategy section.

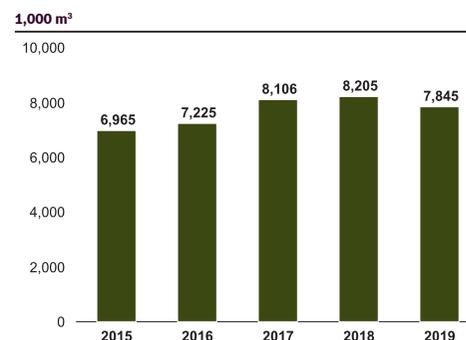
2019 highlights

In 2019, Novozymes implemented various water-related projects across our production sites that resulted in 262,000 m³ of water

savings. One of those projects was the installation of a reverse osmosis system at one of our plants in China, which purifies our process water and enables reuse in our cooling towers. Novozymes met its annual target of restricting the increase in water consumption to a level lower than the organic sales growth in 2019.

The table provides a breakdown of total water consumed.

Five-year water consumption



Water by primary source

1,000 m ³	2019	2018
Drinking water	5,288	5,578
Industrial water	2,214	2,256
Steam	343	371
Water, total	7,845	8,205



ACCOUNTING POLICIES

Water includes drinking water, industrial water and externally supplied steam. Drinking water is water of drinking-water quality. Industrial water is not of drinking-water quality, but is suitable for certain industrial processes, for example for use in cooling towers. Industrial water may come from lakes or wells.

The reported quantities are stated based on the metered intake of water to Novozymes and include quantities consumed both in the production process and in other areas. The reported quantities of steam are converted to volume of running water and are therefore subject to calculation.

Wastewater is measured as the volume discharged by Novozymes or calculated based on water consumption.

Environmental data

7.3 Water (continued)

In 2019, as part of its water stewardship efforts, Novozymes helped build a water over-head tank near our production site in Patalganga, near Mumbai, which is in a water scarce region. When operational, this water tank will give neighboring villages access to clean water.

The table provides details of wastewater generated in 2019.

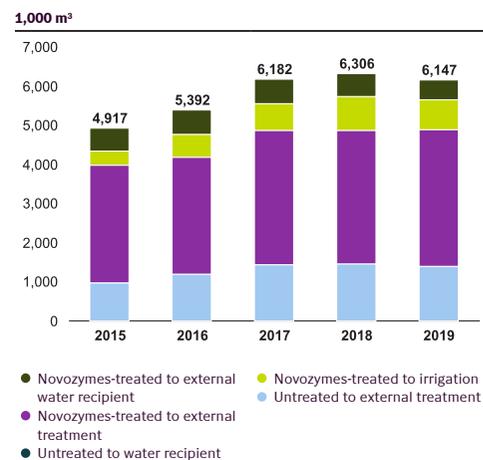
Wastewater treatment

1,000 m ³	2019	2018
Wastewater used for irrigation	774	866
Wastewater discharged	5,373	5,440
Wastewater volume, total	6,147	6,306

In 2019, in addition to running the existing wastewater projects, we spent time defining our wastewater project portfolio under the updated strategy. Some of the potential wastewater activities will be focused on waste to energy and circular systems.

Going forward, we will focus on increasing our understanding of the evolving 'context-based' approach to water management, while working towards effectively implementing our new targets.

Wastewater by treatment method



Environmental data

7.4 Waste

Novozymes supports the transition to a circular economy through sustainable consumption and production, and we deliver biological solutions that enable our customers to adopt sustainable production and consumption practices. At the same time, we are committed to drive our own business towards more circularity. Reduction, reuse and recycling of the planet's limited natural resources are vital for a sustainable future. Circular waste management is a key enabler in this and the reason why waste is a material issue for us.

Our approach

Waste management at Novozymes is driven by our Sustainability Policy and is managed through the 'Sustainable production and consumption' pillar of our recently updated strategy, which includes new ambitions and targets on circular waste management. We aim to have 100% of key materials and waste managed in circular systems by 2030.

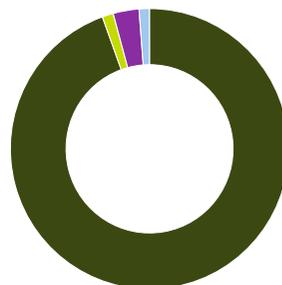
Novozymes has 16 major sites reporting on the three categories and disposal methods. As waste management is a complex issue

subject to a diverse set of local regulations and involving several external service providers, we have adopted a site-specific management approach.

2019 highlights

Novozymes generated 526,000 tons of waste in 2019 compared with 523,000 tons of waste in 2018. The majority of the waste was recovered, and only 4% was sent for landfill.

Waste and by-products 2019 (2018)



- Recovered biomass **94.5%** (94.4%)
- Recovered (recycled) solid waste **1.3%** (1.2%)
- Biomass sent for landfill **3.0%** (2.9%)
- Solid waste sent for landfill/incineration **1.2%** (1.5%)

Biomass

1,000 tons	2019	2018
NovoGro®	412	347
NovoGro® 30	79	138
Compost	6	9
Landfill	16	15
Biomass, total	513	509

Biomass

The biomass generated makes up most of the waste and accounts for 97% of Novozymes' total waste. The biomass is rich in nitrogen and phosphorus and the energy can be recovered in biogas facilities. In 2019, 97% of our biomass was handled in a circular set-up with energy recovery in the form of biogas and/or distributed to local farmers as our agricultural fertilizer product NovoGro®. As part of our recent strategy update, we have set a new target to achieve 100% circular management of our biomass by 2022. A breakdown of the total biomass generated is provided in the table.

§ ACCOUNTING POLICIES

Biomass is measured or calculated on the basis of volume or weight produced and transported from Novozymes as liquid fertilizer (NovoGro®), converted to a fertilizer product with a higher dry matter content (NovoGro® 30 or compost) or dried and used as fuel for energy production. Biomass from a newly built plant is sent for landfill with energy production (biogas) as a temporary disposal method.

Solid waste is the registered volume of waste broken down into hazardous and nonhazardous waste, and by disposal method. The amount recycled is the quantity recycled internally or sent to an external service provider for recycling. Biomass is not included in the reported amounts of solid waste.

Environmental data

7.4 Waste (continued)

Waste

The two other types of waste (nonhazardous and hazardous) combined account for 3% of Novozymes' total waste. In 2019, the recycling rate of waste was 52% compared with 44% in 2018. The remaining 48% of the waste, which corresponds to 6,200 tons, was sent for landfill or incineration without energy recovery. A breakdown of the total waste generated is provided in the table.

To pave the way for our long-term ambition, we have set a target that all sites should have implemented programs to reach zero waste by 2022. The roadmaps on how to achieve this at every site are to be defined in collaboration with local experts and external service providers. In the years towards 2022, Novozymes will work actively with local vendors to explore the site-specific opportunities.

Waste 1,000 tons	2019	2018
Nonhazardous waste		
Incineration	2.3	2.1
Landfill	3.1	3.6
Recycling (external)	4.3	4.4
Recycling (internal)	-	0.1
Nonhazardous waste, total	9.7	10.2
Hazardous waste		
Incineration	1.0	2.3
Recycling (external)	0.2	0.2
Recycling (internal)	2.4	1.6
Hazardous waste, total	3.6	4.1
Waste, total	13.3	14.3

7.5 Environmental compliance, etc.

Compliance with environmental norms and regulations is a high priority for Novozymes so as to maintain business continuity and day-to-day running of operations. Novozymes is committed to complying with all environmental regulations and maintaining high standards of environmental management on various aspects, including pollution prevention, resource conservation and waste reduction.

Our approach

Novozymes' commitment to environmental compliance is outlined in its Sustainability

Policy. All activities to ensure environmental compliance are anchored in the Quality and Sustainability function. Our Environmental Management System is based on ISO 14001 certification, and we strive to minimize the number of non-compliances and neighbor complaints.

2019 highlights

In 2019, 17 environmental incidents were registered across our facilities, compared with 27 in 2018. Most of these were related to wastewater treatment. Plans for preventive

action for these incidents have been agreed with the relevant authorities.

Novozymes received seven neighbor complaints in 2019, down from 11 complaints in 2018.

§ ACCOUNTING POLICIES

Breaches of environmental regulatory limits are measured as the number of incidents in the reporting year considered not to be in conformity with environmental permits or requirements under environmental law.

Breaches related to annual control measurements of spills reported in previous years are not included, as they are not indicative of performance during the reporting year.

Neighbor complaints refers to the number of registered environmental complaints, primarily odor and noise related.

7.6 Bioethics & biodiversity

Novozymes' research and business are based on bioinnovation. To develop sustainable solutions and applications for our customers, we explore nature and take samples of fungi, bacteria and enzymes among the available biodiversity. Next, we assess the samples and optimize applications by means of biotechnological research. That is why "bioethics & biodiversity" is a material issue for Novozymes' operations and its relationships with external stakeholders.

Our approach

Novozymes' position paper on industrial biotechnology describes our approach to managing and supporting safe and sustainable use, and the adoption of robust, science-based regulations for products involving gene technology, including the latest gene-editing technologies. We seek to engage with relevant stakeholders to improve the general level of knowledge about the sustainable and societal opportunities presented by biology, industrial biotechnology and modern gene technology.

When we take biological samples in nature, it is important that we always follow the local laws of the countries where we operate as well as complying with globally recognized principles on the utilization of genetic resources. We continuously discover new microbes that are valuable solutions for more environmentally-friendly industrial processes. Novozymes' position paper on biodiversity articulates how we endorse, acknowledge and respect the principles of the United Nations Convention on Biological Diversity and the complementary

Nagoya Protocol on Access and Benefits Sharing. Internal procedures in our management system ensure that we live up to our commitments. As an example, we have established a Nagoya Protocol steering group which ensures compliance with the protocol and that internal guidelines are maintained.

7.7 Product stewardship

Novozymes is committed to ensuring product safety and stewardship in our operations and customer relationships. This is material to us, as many of our biological solutions serve as ingredients in consumer goods (e.g. in laundry detergents) or are used for manufacturing consumer products such as foods, textiles and livestock.

Novozymes' ambition is to continue supplying safe products and substitute hazardous substances in its operations with safer and more sustainable alternatives wherever possible. Novozymes strives to reduce the risk of enzyme allergies among employees and downstream users by promoting adherence to enzyme safety standards.

Our approach

Novozymes' approach to product stewardship is outlined in its Quality and Product Safety Policy, which is an important element of Novozymes' Quality Management System. Novozymes constantly strives to reduce the risk of potential harm to both human health and the environment in the manufacture, handling and use of its products.

This approach is implemented by means of many cross-functional teams, and the primary responsibility rests with Regulatory Affairs & Product Safety. Procedures ensuring product stewardship are enforced globally and audited by the independent external body Bureau Veritas.

Novozymes has also developed its position on and approach to related topics such as product information and labeling, traceability, industrial biotechnology, animal testing, REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) and FIAP (Food Improvement Agents Package).

Novozymes has started to measure performance and monitor progress in product stewardship, particularly in the areas of product safety and hazardous substance management.

2019 highlights

Novozymes remains firmly committed to maintaining high-quality dossiers under REACH and FIAP. With its extensive experience in responding to increasing regulatory requirements, Novozymes, in 2019, worked on developing its compliance towards new regulations such as Korean REACH.

Novozymes chairs the Enzyme Safety Working Group, which plays a coordinating role within The Association of Manufacturers and Formulators of Enzyme Products (AMFEP) to develop advanced safety standards for enzyme use. Through the AMFEP, Novozymes, recently collaborated with the Confederation of European Paper Industries to develop safety guidance for the paper industry, which will be published in early 2020. As a follow up to the safety guidance released for the baking industry in 2018, AMFEP and the Federation of

European Union Manufacturers and Suppliers of Ingredients to the Bakery, Confectionery, and Patisserie Industries launched a series of webinars that explains the safety elements relevant for this industry. In 2019, Novozymes also published a peer-reviewed article on medical surveillance at Novozymes production sites.

In 2020, we will continue to prioritize product stewardship practices at Novozymes through technical and risk assessments. We will further explore the feasibility to phase out priority substances and develop substitution strategies, working our way towards our goals. We plan to drive a new initiative to develop safety guidance specially for the textile industry in a collaboration between AMFEP, the Association of Manufacturers of Process and Performance Chemicals and the European Apparel and Textile Confederation.

Social and governance data

We measure our social performance using a number of indicators in the areas of labor practices & human rights, occupational health & safety, business ethics, customer engagement and community engagement. These indicators enable us to track our progress and respond to risks and opportunities related to both talent attraction and retention, and business development.



Accidents per million working hours

0.9

Women in senior management

31%

Completion of business integrity training for employees

99%

8.1 Labor practices & human rights

Employees are vital for Novozymes' growth and the successful execution of its strategies. Therefore, it is important for Novozymes to focus on employee development and diversity in all its operations. Novozymes is responsible for ensuring that human rights are respected throughout its value chain.

Our approach

We have adopted a common management approach and reporting structure for labor practices and human rights. Our People and Organization (P&O) function, together with leaders across Novozymes are responsible for ensuring equal rights for all employees and promoting diversity. We are committed to ensuring equal opportunities and avoiding discrimination based on race, religion, gender or age in our global organization. Read more in our position paper on 'Diversity and Equal Opportunities', at Novozymes.com.

Novozyymes is committed to providing a work environment where all individuals can work together comfortably and productively, free of any forms of harassment and discrimination. Novozymes recognizes and respects the right to form and join associations and to bargain collectively. Our P&O function works together with local leadership to facilitate the fulfillment of these fundamental rights in countries with limited labor legislation.

In 2019, we defined targets for 2020-2022 focused on building a culture where our employees thrive, grow and perform to bring out their best. To nurture diversity, our target is to achieve an 86 rating on our diversity index; and to enable learning, our target is to achieve an 80-point rating on our employee survey.

Novozyymes respects human rights as defined by the UN Guiding Principles on Business and Human Rights. Novozymes also respects the International Bill of Human Rights, the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, and, since 2001, we have been a signatory to the United Nations Global Compact.

We have implemented the UN Guiding Principles on Business and Human Rights in our operational policies and procedures. We also conduct due diligence and impact assessments in countries where we operate and offer grievance mechanisms to internal and external stakeholders. Our position paper on Human Rights and Labor Standards is signed by our CEO and outlines our approach to respect and manage human rights within our operations. We also published our third annual statement under the UK Modern Slavery Act. For more information, please refer to 'Policies and Position Papers' at Novozymes.com.

2019 highlights

Labor practices

We believe in promoting gender diversity at work and are continuously focused on increasing the number of women in leadership roles in the organization. In 2019, 31% of the senior management team were women, exceeding our target for the year of at least 29%.

This year, Science Magazine ranked Novozymes the world's 7th best science employer. We have been among the top 10 science employers in the world for the last four years.

In 2019, the rate of employee turnover increased to 12.7% from 8.8% in 2018. We recorded a 1.9% rate of absence, which is below our target of $\leq 2.0\%$. The rate of absence has been broken down into grouped job categories, based on whether the work carried out is primarily office-based.

Employee statistics

		2019	2018
Rate of employee turnover – retirement	%	1.0	1.0
Rate of employee turnover – dismissal	%	5.7	2.0
Rate of employee turnover – voluntary	%	6.0	5.8
Rate of employee turnover, total	%	12.7	8.8

Rate of absence

Senior management, management, professional and administrative	%	1.2	1.2
Skilled workers, laboratory technicians, other technicians and process operators	%	2.6	3.0
All employees	ESG %	1.9	2.1

Other employee statistics

Average age	Years	42.0	41.4
Average seniority	Years	10.1	9.6
Number of expatriates	No.	22	23
Average training cost spent per employee	DKK	3,351	3,637
Costs as percentage of total employee costs	%	0.5	0.6

8.1 Labor practices & human rights (continued)

Launched in 2018, Lead the Way aims to help all leaders at Novozymes to develop their core leadership skills needed to drive employee engagement and performance, and to mobilize employees around our purpose and values. In 2019, the enrollment of leaders in the Lead the Way program increased to ~57% from ~30% in 2018.

The employee-survey result for 'Satisfaction and Motivation' was 77, not meeting our 2019 target of ≥ 79 . Additionally, for 'Enabling Employee Development', we achieved a result of 77, meeting our 2019 target of ≥ 75 . The employee survey enables us to not only track the organizational mood but also to make room for better and more relevant team talks focusing on how we work together at Novozymes. This is critical to ensuring our success as a business and sustaining our reputation as a great place to work.

Human rights

In 2018, we started to conduct regionally focused human rights impact assessments to identify and assess human rights risks and impacts in our business and supplier base. As human rights risks vary from region to region, this approach enables us to gain a more comprehensive understanding of human rights risks, our positioning and the associated gaps within the respective regions.

In 2019, we conducted the human rights impact assessment for Europe, Middle East and Africa (EMEA). Through these assessments, we identified the most salient human rights, and are taking appropriate measures to mitigate the identified risks and gaps. Our aim is to complete the assessments for the remaining regions, namely, China, Latin America and North America, by 2021.



ACCOUNTING POLICIES

Absence is defined as time lost due to an employee's illness, including sick leave, and occupational accidents and diseases. The rate of absence is calculated as the number of registered days of absence as a percentage of the total number of normal working days in one year, less vacation and public holidays.

The rate of employee turnover is calculated as employee turnover divided by the average number of permanent employees. Employee turnover is measured as the number of permanent employees leaving the Group during the preceding four quarters (excluding employees at divested entities transferred to the acquiring company).

Average age and seniority are calculated as the sum of employees' total age/seniority in whole years at the reporting date, divided by the number of employees.

Expatriation refers to Novozymes employees temporarily reassigned within Novozymes from the country of original employment for a period of more than six months.

Training costs express the cost of external training courses and seminars, translated into Danish kroner at average exchange rates. Training costs are also shown as a percentage of total employee costs.

Women in senior management measures the percentage of women in director positions or higher (i.e. senior director, vice president or executive vice president).

8.2 Occupational health & safety

The health and safety of all our employees is of paramount importance to Novozymes, and therefore forms a fundamental part of our business strategy. The aim is to ensure that robust safety processes, equipment, standards, tools and training are fully integrated into our way of working. We take appropriate measures to ensure focus on occupational health and safety across the organization, by means of initiatives owned and driven locally under a global framework.

Our approach

Novozyymes' Quality and Sustainability function is responsible for supporting the organization in ensuring a safe and healthy work environment. To reinforce our safety culture, we have a Global Health and Safety Policy, along with internal standards and procedures. We monitor our performance and ensure continuous improvement through benchmarking of both internal and external key performance indicators. We define annual targets to ensure we continue to improve our performance on health and safety. In 2019, as part of our strategy update, we increased our focus on health and wellbeing and defined new ambitions and programs on these topics. For instance, we have a target to drive down the lost-time injury frequency rate by 2022 relative to a 2018 baseline.

2019 highlights

Our safety performance was better than ever in 2019 thanks to a company-wide focused and dedicated effort. Our target was to limit frequency of occupational accidents per million working hours (lost-time injury frequency rate) to 1.5 or below. We met our target as the frequency of occupational accidents was 0.9 compared with 2.4 in 2018. For more information on occupational accidents and diseases, please refer for the tables provided.

Our new global incident handling system CAPTURE has enabled us to implement targeted, data and theme-based safety initiatives. These initiatives focus on prevention and safety, for example machinery safety, and falling, tripping and straining of the body.

Consequences of occupational accidents

No.	2019	2018
Return to original job	10	25
Return to a different job in the same department	-	1
Out of work or early retirement	-	1
Case pending	-	-
Occupational accidents with absence, total	10	27
Total days of absence related to accidents registered in the same year	351	401
Injury severity rate	35	13



ACCOUNTING POLICIES

Occupational accidents is defined as the reported number of occurrences arising out of or in the course of work that result in fatal or nonfatal injury with at least one day of absence from work apart from the day of injury.

Occupational diseases is defined as the number of diseases contracted as a result of exposure to risk factors arising from work activity and notified as work related in accordance with local legislation.

The consequences of occupational accidents with absence and occupational diseases are measured by recording the work situation once the situation resulting from an incident has stabilized, for example whether the employees have returned to their original jobs, and the total number of calendar days of absence.

Frequencies of occupational accidents with absence and occupational diseases are stated per million working hours.

The injury severity rate is calculated by dividing total days of absence related to accidents registered in the same year by the number of occupational accidents.

8.2 Occupational health & safety (continued)

Consequences of occupational diseases

No.	2019	2018
Return to original job	1	4
Return to a different job in the same department	-	-
Out of work or early retirement	-	-
Case pending	-	-
Occupational diseases, total	1	4
Total days of absence related to diseases registered in the same year	-	-

Types of occupational diseases

No.	2019	2018
Skin disease	-	-
Enzyme allergy	-	3
Other	1	1
Occupational diseases, total	1	4

We also introduced a new global incident follow-up procedure. This procedure has supported various internal initiatives and resulted in high quality root cause analysis, strong preventative countermeasures and, sharing better practices and lessons learned.

Enzyme safety is a top priority for Novozymes. In 2019, we published a scientific study, which concluded that our preventive program works effectively, and our learnings enable us to improve ZEAL (Zero Enzyme Allergy) for the benefit of our employees and customers. We have continued to promote the culture of safety within Novozymes through our corporate safety values and activities that promote safe behavior.

Brain Space is an ongoing initiative that aims to inspire employees, equip them with tools to nurture their brains and help them thrive in a digital and fast-paced work environment. In 2019, we focused on creating better conditions for our employees to concentrate and avoid distractions by providing them with tips to avoid pseudo work and promoting brain-breaks at the workplace.

Moving forward, we will focus on the implementation of our updated strategy, aiming to improve the safety related to our products and workplace, and the general wellbeing of our employees.

8.3 Business ethics

Business ethics is at the core of our business and therefore a material issue for Novozymes. We are committed to conducting business in a responsible, ethical, and transparent manner, and to meeting stakeholders' expectations of high business integrity standards across our operations.

Our approach

Novozymes' management approach to business integrity is embedded in our corporate values, policies and procedures.

Novozymes has adopted six business integrity principles that lay the ground rules for engaging with third parties and apply to all employees across the world. The business integrity principles underline Novozymes' zero tolerance approach to bribery and set clear rules for gifts and donations. These principles act as Novozymes' code of conduct in business integrity matters and form the basis of our efforts to eliminate all forms of corruption. For more details, please see our position paper on business integrity at Novozymes.com.

A dedicated legal compliance function handles business integrity-related matters and training of our employees. All employees have

access to relevant guidance on the intranet and are encouraged to raise any concerns about business integrity to the designated business integrity contacts or other relevant grievance channels. Novozymes also has a whistleblower system which allows employees and others to report their concerns relating to business integrity and corruption, fraud and other serious matters. Read more about our grievance channels at Novozymes.com.

We offer mandatory business integrity training annually for our employees in scope. This training is designed and rolled out by Novozymes' Chief legal compliance officer, based on input from regional lines of businesses and questions raised during the year to ensure relevance and applicability. This training includes real-life case studies and reinforces employees' commitment to business integrity principles. Business integrity training is also part of the onboarding training program for new employees.

Novozymes' recurring antitrust training provides general guidance on competition law and is completed by relevant employees in commercial roles across all regions.



ACCOUNTING POLICIES

Completion of business integrity training refers to the percentage of the employees in scope who have undergone business integrity training in the last training period. New entities are included within six months of acquisition. Business integrity training is conducted for employees who can potentially influence third-party interactions or decisions as part of their job role. This comprises employees in professional, managerial or administrative positions.

The reporting criteria for competition law violations are whether it has been established by an authority member of the International Competition Network or by a competent court anywhere in the world that

a company in the Novozymes Group has violated applicable anti-trust regulations.

All allegations of fraud are investigated until it has been determined whether they can be substantiated. The number of fraud cases represents substantiated and unsubstantiated matters reported to the Audit Committee in the reporting year.

Novozymes defines fraud as an offence where an employee or third party either:

- Takes or removes the company's property without its consent with intent to deprive the company of it, or
- Intentionally deceives the company by providing false documentation or by suppressing the truth in order to obtain a personal gain

8.3 Business ethics (continued)

Novozymes works proactively to prevent, detect and respond to fraud, and we continuously increase internal awareness and develop relevant programs or initiatives in this area as required.

An internal control system enables identification of fraud cases and addresses concerns raised, e.g. through our whistleblower system.

These cases are reported to the Audit Committee on a quarterly basis, and all allegations of fraud are appropriately investigated in accordance with internal policies and procedures. Substantiated fraud will lead to proportionate disciplinary sanctions for the parties involved.

Novozymes' responsibility for ensuring ethical business practices also extends to ensure that our business partners and stakeholders are equally committed to preventing corruption and upholding business integrity principles. Our third-party due diligence processes include monitoring and ensuring that our commercial partners conduct business with integrity and share our values regarding legal compliance.

2019 highlights

In 2019, the business integrity training was completed by 99% of our employees in scope and focused on anti-money laundering, gifts and hospitality.

The antitrust training focused on concerns relating to price communication.

During the year, new initiatives such as a fraud e-learning module targeted at special functions and more frequent cyber fraud vulnerability assessments were launched to increase fraud awareness and mitigate the exposure towards cyber fraud.

In 2019, there were no violations of competition law.

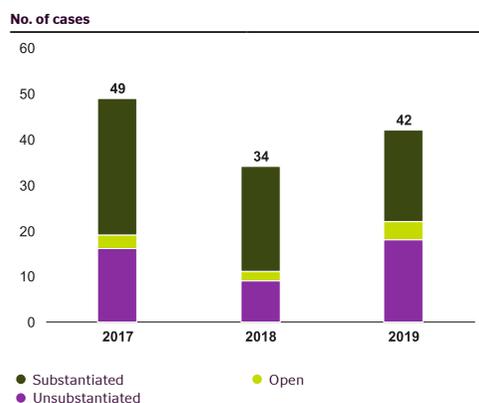
The number of fraud cases investigated by Novozymes increased to 42 from 34 in 2018. The investigated fraud cases did not have a material financial impact.

Of the investigated cases, 53% were substantiated and 35% of the substantiated cases were reported to the police.

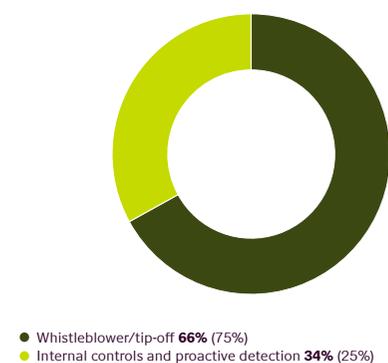
The charts below provide further details of the reporting channels and consequences of fraud cases.

Moving forward, we will continue to raise awareness of fraud and train employees in business integrity, compliance and relevant policies and procedures.

Reported fraud cases



Reporting channels 2019 (2018)



Consequences of substantiated fraud cases 2019 (2018)



8.4 Community engagement

We believe that businesses have a responsibility to engage with the communities in which they operate and invest strategically in programs that create value for society. We focus our community engagement and social investment activities on education, which we believe is crucial for global sustainable development. Our programs are designed specifically around biology, sustainability and the environment.

Our approach

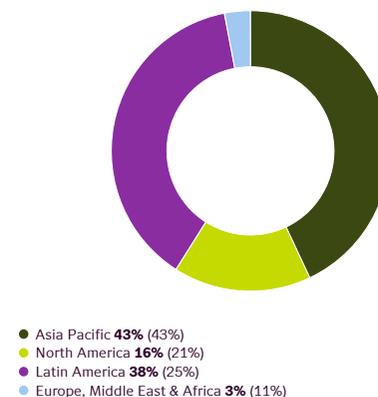
Our community engagement initiatives are driven through education-related initiatives. These initiatives are anchored in our Quality and Sustainability department, and the various educational programs are driven and implemented regionally by our sustainability managers. In total, we have educated more than 941,000 learners globally, since 2015.

2019 highlights

In 2019, we engaged approximately 329,000 learners, with Asia Pacific and Latin America being major contributors. An overview of the distribution of learners reached by the different regions is provided in the chart. Moving forward, we will be implementing our new long-term strategy and encouraging our employees to contribute to their local communities.

Read more about Educate in the Targets section and at [Novozymes.com](https://www.novozymes.com).

Learners reached by geography 2019 (2018)



CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Methodologies to count and consolidate learners reached have been defined and are applied, but the reported numbers are still subject to assumptions and estimates, for example when recording the number of participants at a conference. This means that the result of the calculation will be an approximation.



ACCOUNTING POLICIES

Learners reached comprises the total number of persons Novozymes reaches via its EDUCATE activities. An EDUCATE activity is an activity that engages the learner to a degree sufficient to confirm that awareness has been created.

8.5 Customer engagement

Novozymes believes that customer opinions serves as powerful indicator in determining the success and performance of its solutions in the market. We therefore consider customer engagement and partnership to be material for our business.

Our approach

Each year, we conduct a satisfaction survey of our customers across all divisions. This is to monitor customer perceptions of our solutions and services and learn where we can improve. We use the survey as a dialogue tool with our customers. Overall customer perceptions are measured via four key performance drivers: Net Promoter Score (NPS), Loyalty Index, Value of Partnership, and Customer Satisfaction Score.

Novozymes has set an annual Customer Satisfaction Measurement target which refers to the NPS that reflects customer responses to the question: “How willing are you to recommend Novozymes to others?”

Responsibility for measuring, analyzing and addressing customer satisfaction and performance is anchored across commercial divisions.

2019 highlights

In 2019, Novozymes invited 966 customers across 85 countries to participate in the survey. We achieved an NPS of 54, surpassing our 2019 target of 50, with a 57% response rate. The results hold for our large and smaller customers, new and old, across regions. The NPS score confirms our strong relationships with our customers.

Key factors impacting the NPS include customers' appreciation for our commercial and technical support and account management. They also note certain areas of improvement, including challenges in implementing our solutions and how we perform in relation to the competition on factors such as pricing.

Our customers value our products and services and we recognize the importance of innovation to meet local needs and improve competitiveness.

Going forward, we will strive to maintain close relationships with our customers and proactively work on the areas where we can improve.



ACCOUNTING POLICIES

The Net Promoter Score (NPS) is derived from an annual questionnaire measuring how likely the customer is to recommend Novozymes to others. The NPS is calculated as the share of promoters (on a scale of 0-100) less the share of detractors (also on a scale of 0-100). The resulting score is a value between -100 and +100.

8.6 Responsible sourcing

At Novozymes, we are continually focused on environmental, social and governance (ESG) issues across our value chain, and one of our material domains of focus is responsible sourcing. It is crucial for Novozymes to have a secure supply of sustainable raw materials for our production. Agricultural raw materials are a major constituent of our production processes and we continue to focus our efforts on sourcing renewable energy for our operations.

Our approach

Our approach to responsible sourcing is mainly defined by our Responsible Purchasing Standards (RPS) and managed through our Supplier Performance Management (SPM) process. Responsibility is anchored within our Supply Operations function.

To know more, see our position statement 'Responsible purchasing' which includes Supplier Guidelines that communicate our RPS to suppliers, and our updated 'Modern slavery Statement' at [Novozymes.com](https://www.novozymes.com).

Novozymes requires all contracted suppliers to comply with our RPS, as well as, when requested, to complete questionnaires and to accept visits and audits relevant for confirmation of compliance with the standards. These standards cover various ESG criteria including respect for human and labor rights, business ethics, employee health and safety and environmental stewardship. All

our suppliers of directly sourced agricultural raw materials are required to adhere to our deforestation requirements by not contributing to further deforestation and must have zero tolerance for land grabbing.

We ensure relevant training and capacity-building for all our category managers and buyers. They receive instructions on how to apply the RPS in the selection and evaluation of Novozymes' suppliers and have received training on modern slavery and human trafficking.

Through our SPM process, Novozymes screens suppliers and classifies their risk based on spend, country and category. In case a supplier does not meet our assessment criteria, it will be thoroughly assessed whether to work with the supplier on a corrective action plan, or if choosing an alternative supplier is the appropriate response to ensure sustainable performance across our supply chain.

Novozymes is a member of SEDEX, a supplier sustainability collaboration platform. This engagement will be an important part of our responsible sourcing approach going forward, as we plan to enhance the foundation for supplier performance and risk assessments by connecting more cross-functional data from our supplier base.

Novozymes' updated strategy 'Better business with biology' has an increased focus on responsible sourcing supported by key long-term commitments and targets. To further develop our responsible sourcing practices and help implement our updated strategy, going forward, we will strengthen partnerships with our suppliers and drive ambitious programs for responsible sourcing.

We will focus on sourcing 100% renewable electricity, reducing Scope 3 emissions from key raw materials, developing circular packaging management of all key materials and reducing or substituting prioritized substances to safer alternatives.

Read more about our updated strategy and targets in the Strategy section.

2019 highlights

In 2019, Novozymes completed a human rights and impact assessment for the Europe, Middle East and Africa region (EMEA) of our operations and supplier base. Read more about these assessments in Note 8.1 Labor practices & human rights.

As a member of the Roundtable on Sustainable Palm Oil (RSPO), 100% of the palm oil we sourced in 2019 was RSPO certified.

Statement of the Board of Directors and Executive Management

The Board of Directors and the Executive Management have today considered and adopted the Annual Report of Novozymes A/S for the financial year January 1 – December 31, 2019. The Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act, and the Parent Company Financial Statements have been prepared in accordance with the Danish Financial Statements Act. Management's Review has been prepared in accordance with the Danish Financial Statements Act.

Bagsvaerd, January 23, 2020

Executive Management

Peder Holk Nielsen
President & CEO

Thomas Videbæk

Lars Green

In our opinion, the accounting policies used are appropriate, and the Group's internal controls relevant to preparation and presentation of the Annual Report are adequate. The Consolidated Financial Statements and the Parent Company Financial Statements give a true and fair view of the financial position at December 31, 2019 of the Group and the Parent Company and of the results of the Group and the Parent Company operations and consolidated cash flows for the financial year January 1 – December 31, 2019.

In our opinion, Management's Review includes a true and fair account of the development in the operations and financial circumstances

Board of Directors

Jørgen Buhl Rasmussen
Chairman

Lars Bo Køppler

Lena Bech Holskov

Agnete Raaschou-Nielsen
Vice Chairman

Kim Stratton

Anders Hentze Knudsen

of the Group and the Parent Company, of the results for the year, and of the financial position of the Group and the Parent Company as well as a description of the most significant risks and elements of uncertainty facing the Group and the Parent Company.

In our opinion, Novozymes A/S adheres to the AA1000 AccountAbility principles (2008), and environmental, social and governance data are stated in accordance with the accounting policies.

We recommend that the Annual Report be adopted at the Annual Shareholders' Meeting.

Independent Auditor's Report

To the Shareholders of Novozymes A/S

Our opinion

In our opinion, the Consolidated Financial Statements give a true and fair view of the Group's financial position at December 31, 2019 and of the results of the Group's operations and cash flows for the financial year January 1 to December 31, 2019 in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act.

Moreover, in our opinion, the Parent Company Financial Statements give a true and fair view of the Parent Company's financial position at December 31, 2019 and of the results of the Parent Company's operations for the financial year January 1 to December 31, 2019 in accordance with the Danish Financial Statements Act.

In our opinion, the Consolidated environmental data and the Consolidated social and governance data for the financial year January 1 to December 31, 2019 are prepared in accordance with the accounting policies for the Consolidated environmental data and the Consolidated social and governance data.

Our opinions are consistent with our Auditor's Long-form Report to the Audit Committee and the Board of Directors.

What we have audited

The Consolidated Financial Statements of Novozymes A/S, pages 51-59 and 64-114, for the financial year January 1 to December 31, 2019 comprise the consolidated income statement and statement of comprehensive income, the consolidated balance sheet, the consolidated statement of shareholders' equity, the consolidated statement of cash flows and the notes, including significant accounting policies.

The Parent Company Financial Statements of Novozymes A/S, pages 142-156, for the financial year January 1 to December 31, 2019 comprise the income statement, the balance sheet, the statement of changes in equity and the notes, including significant accounting policies.

Collectively referred to as the "Financial Statements".

The Consolidated environmental data and the Consolidated social and governance data of Novozymes A/S, pages 60-63 and 115-135, for the financial year January 1 to December 31, 2019 comprise the environmental performance and consolidated data, the social and governance performance and consolidated data and the related notes, including significant accounting policies.

These are collectively referred to as the "Environmental, Social and Governance Data."

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 section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the Group 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. We have also fulfilled our other ethical responsibilities in accordance with the IESBA Code.

To the best of our knowledge and belief, prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014 were not provided.

Appointment

We were appointed as auditors of Novozymes A/S for the first time after the initial public offering on 21 March 2001. We have been reappointed annually by shareholder resolution for a total period of uninterrupted engagement of 19 years, including the financial year 2019.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the Financial Statements for 2019.

These matters were addressed in the context of our audit of the Financial Statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter

How our audit addressed the key audit matter

Partnerships and collaboration agreements

Novozymes has entered into several partnerships and collaboration agreements.

Some of these partnerships and collaborations include complex mechanisms for sharing profit, expenses and intangible assets. Due to the complexity of the agreements, there are several uncertainties in relation to the interpretation of the agreements.

The termination of The BioAg Alliance in 2019 also includes several uncertainties and assessments of deferred income, related intangible assets and accruals.

We focused on this area because the partnerships and collaboration agreements and the related accounting treatment of profit-sharing, expenses and intangible assets are complex and because establishing appropriate accruals, initial measuring of fair value of intangible assets and impairment testing requires significant judgement and estimation by Management.

Refer to Note 2.2, 2.5, 3.1, 4.2 and 4.4 to the Consolidated Financial Statements.

We tested relevant controls including applicable information systems and monitoring controls implemented to ensure that profit-sharing, expenses and intangible assets from the partnerships and collaboration agreements are recognized and measured appropriately on an ongoing basis.

We assessed the accounting treatment applied by Management of the termination of the BioAg Alliance, including measuring initial fair value of the intangible assets taken over due to the termination, impairment of assets and cost associated with the termination.

We read the new agreements, assessed Management's interpretation of the new agreements and discussed the initial financial impact.

We tested Management's calculation of profit-sharing and related accruals etc. under the applicable agreements, as well as reconciled inputs and key assumptions – for both internal and external sources – and we assessed the accuracy of the accruals in previous periods.

We assessed whether the disclosures in relation to revenue and intangible assets are appropriate and met the requirements of accounting standards.

Statement on Management's Review

Management is responsible for Management's Review, pages 3-50.

Our opinion on the Financial Statements and on the Environmental, Social and Governance Data 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 in the audit, or otherwise appears to be materially misstated.

Moreover, we considered whether Management's Review includes the disclosures required by the Danish Financial Statements Act.

Based on the work we have performed, in our view, Management's Review is in accordance

with the Consolidated Financial Statements, the Parent Company Financial Statements and the Environmental, Social and Governance Data, 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 Responsibility for the Financial Statements and the Environmental, Social and Governance Data

Management is responsible for the preparation

of Consolidated Financial Statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act and for the preparation of Parent Company 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.

Furthermore, Management is responsible for preparing the Environmental, Social and Governance Data in accordance with the accounting policies applied, and for such internal control as Management determines is necessary to enable the preparation of Environmental, Social and Governance Data that are free from material misstatement, whether due to fraud or error.

In preparing the Financial Statements, Management is responsible for assessing the Group's and the Parent 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 unless Management either intends to liquidate the Group or the Parent Company or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements and the Environmental, Social and Governance Data

Our objectives are to obtain reasonable assurance about whether the Financial Statements and the Environmental, Social and Governance Data 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 and the

Environmental, Social and Governance Data.

As part of an audit 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 and the Environmental, Social and Governance Data, 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 Group's and the Parent 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 and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Parent 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 Group or the Parent Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the Financial Statements and the Environmental, Social and Governance Data, including the disclosures, and whether the Financial Statements and the Environmental, Social and Governance Data represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial, environmental, social and governance information of the entities or business activities within the Group to express an opinion on the Consolidated Financial Statements and the Environmental, Social and Governance Data. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

Hellerup, January 23, 2020

PricewaterhouseCoopers

Statsautoriseret Revisionspartnerselskab
CVR no 3377 1231

Lars Baungaard

State Authorized Public Accountant
mne23331

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.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the Financial Statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Rasmus Friis Jørgensen

State Authorized Public Accountant
mne28705

Independent assurance statement on Novozymes' 2019 sustainability reporting and adherence to the AA1000 AccountAbility Principles

To the Shareholders of Novozymes A/S

We have been engaged by Novozymes A/S' Management to provide moderate assurance (review) as to whether Novozymes adheres to the AA1000 AccountAbility Principles (2008).

Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that Novozymes does not adhere to the AA1000 AccountAbility Principles (2008) of Inclusivity, Materiality and Responsiveness and that the description of Novozymes' commitment to these, as set out in the Annual Report, is not fairly stated.

This conclusion is to be read in the context of what is stated in the remainder of our report.

Regarding the audit of the Consolidated environmental data and Consolidated social and governance data, we refer to the Independent Auditor's Report.

Management's responsibility

Adherence to the AA1000 AccountAbility Principles of Inclusivity, Materiality and Responsiveness is the responsibility of Management.

Our responsibility

We are responsible for planning and performing the engagement to obtain moderate assurance (review) of Novozymes' adherence with the AA1000 AccountAbility Principles (2008) of Inclusivity, Materiality and Responsiveness; forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and reporting our conclusion to the shareholders of Novozymes A/S.

Our team of experts has competencies with regard to assessing sustainability management systems. In 2019, we have not performed any tasks or services for Novozymes or other clients, which would have conflicted with our independence, nor have we been responsible for the preparation of any part of the Annual Report. Thus, we are independent as defined in the AA1000 Assurance Standard (AA1000AS (2008)) and we consider our team qualified to carry out this independent assurance engagement.

Scope, standards and criteria used

We have planned and performed our work based on AA1000AS (2008), using the criteria in the standard to perform a Type 1 engagement.

We have worked to obtain a moderate assurance (review) as to Novozymes' adherence to the AA1000 AccountAbility Principles (2008).

Methodology, approach, limitation and scope of work

Our methodology has included procedures to obtain evidence of Management's commitment to the AA1000 AccountAbility Principles (2008) and of the implementation of systems and procedures in support of the principles.

Based on an assessment of materiality and risk, our work has included:

- Review of processes related to how Novozymes identifies its shareholders and engages them in relevant business decisions to develop and implement responses to sustainability;
- Review of the process that Novozymes used to identify and determine relevant and significant (material) issues to the organization and its shareholders and whether these issues are included in the sustainability reporting;
- Enquiries and interviews with the chairman of the Board of Directors, members of the Executive Leadership Team and employees responsible for Novozymes' commitment and adherence to the AA1000 AccountAbility Principles (2008), and the existence of systems and procedures to support adaptation of the principles in the organisation. Our work focused on Novozymes' updated strategy, Better business with biology. In particular, we explored how Novozymes will balance short-term interests and long-term opportunities and considerations of impacts on different shareholders related to the refocusing and differentiated approach to the business in the strategy period. In addition, how sustainability and the UN Sustainable Development Goals, is embedded in decision-making and can help drive future business growth; and
- Assessed the presentation and disclosure of the shareholder engagement description included in the Annual Report.

Observations and recommendations

According to AA1000AS (2008), we are required to include observations and recommendations for improvements in relation to Novozymes' adherence to the AA1000 AccountAbility Principles (2008).

Regarding Inclusivity

Novozymes continues to include sustainability into its core strategy and operational processes at Board, executive and operational level. This year, we have noted that significant work has been carried out to develop the non-financial targets and ambitions of the new strategy, and that there have been enhanced involvement of business functions and external experts in these processes.

Regarding Materiality

Novozymes continues to actively evaluate and manage current and likely future sustainability issues and their impact on the business. During 2019, Novozymes has updated its assessment of the material sustainability issues for the business and within the new strategy three new strategic opportunity areas relating to removal of water contaminants, gut and oral health, and alternative specialty proteins, in which Novozymes believes it can bring significant impacts by introducing its biological solutions, are being pursued. Delivery of the businesses' long-term targets continues to be factored into senior management's objectives and remuneration.

Regarding Responsiveness

2019 has been a year of change in Novozymes and there has been significant focus on driving internal performance improvement and also awareness and engagement on sustainability issues. Novozymes continues to engage extensively with customers and partners to bring more and better sustainable products forth that can contribute to the delivery of the Sustainable Development Goals.

We have communicated a few minor recommendations for improvement to the management of Novozymes.

Hellerup, January 23, 2020

PricewaterhouseCoopers

Statsautoriseret Revisionspartnerselskab
CVR no.: 33771231

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Rasmus Friis Jørgensen

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Financial statements for Novozymes A/S

Financial statements

Income statement
Balance sheet
Statement of shareholders' equity

Basis of reporting

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Other assets and liabilities

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Income statement, Novozymes A/S

DKK million	Note	2019	2018
Revenue	2.1	8,260	8,272
Cost of goods sold		(3,867)	(3,965)
Gross profit		4,393	4,307
Sales and distribution costs		(1,285)	(1,092)
Research and development costs		(1,621)	(1,482)
Administrative costs		(598)	(600)
Other operating income	2.3	1,237	1,458
Operating profit / EBIT		2,126	2,591
Income from investments in subsidiaries	3.4	1,494	818
Share of result in associates	3.4	(5)	(7)
Financial income		105	34
Financial costs		(278)	(164)
Profit before tax		3,442	3,272
Tax		(371)	(555)
Net profit		3,071	2,717
Proposed appropriation of net profit			
Dividend to shareholders		1,528	1,485
Revaluation reserve according to the equity method		2,147	2,434
Retained earnings		(604)	(1,202)
	4.3	3,071	2,717
Proposed dividend per share		DKK 5.25	DKK 5.00

Balance sheet, Novozymes A/S

Assets

DKK million	Note	Dec. 31, 2019	Dec. 31, 2018
Intangible assets	3.1	3,064	2,446
Property, plant and equipment	3.2	4,471	4,255
Investments in subsidiaries	3.4	8,581	8,163
Investments in associates	3.4	37	42
Other long-term receivables	3.5	2	6
Receivables from Group enterprises	3.4	352	350
Financial fixed assets		8,972	8,561
Fixed assets		16,507	15,262
Raw materials and consumables		155	160
Work in progress		476	478
Finished goods		707	816
Inventories		1,338	1,454
Trade receivables		924	920
Receivables from Group enterprises		158	671
Tax receivables		344	12
Other receivables	3.5	138	85
Receivables		1,564	1,688
Cash at bank and in hand		141	104
Current assets		3,043	3,246
Assets		19,550	18,508

Liabilities and shareholders' equity

DKK million	Note	Dec. 31, 2019	Dec. 31, 2018
Common stock		582	594
Treasury stock		(4,142)	(4,163)
Revaluation reserve according to the equity method		2,117	1,050
Reserve for development costs		166	127
Retained earnings		10,118	11,316
Proposed dividend		1,477	1,438
Shareholders' equity		10,318	10,362
Deferred tax	3.6	448	380
Other provisions		10	9
Provisions		458	389
Lease liabilities		176	-
Credit institutions	4.2	2,716	1,474
Transitional holiday accrual		58	-
Non-current liabilities		2,950	1,474
Lease liabilities		92	-
Credit institutions		1,408	1,895
Trade payables		512	749
Payables to Group enterprises		3,083	2,883
Other payables		729	756
Current liabilities		5,824	6,283
Liabilities		9,232	8,146
Liabilities and shareholders' equity		19,550	18,508

Statement of shareholders' equity, Novozymes A/S

DKK million	Common stock	Treasury stock	Revaluation reserve according to the equity method	Reserve for development costs	Retained earnings	Proposed dividend	Total
Shareholders' equity at January 1, 2019	594	(4,163)	1,050	127	11,316	1,438	10,362
Net profit for the year			2,147		924		3,071
Capitalized development costs				39	(39)		-
Dividend received			(1,244)		1,244		-
Dividend paid						(1,486)	(1,486)
Dividend paid relating to treasury stock						48	48
Proposed dividend, gross					(1,528)	1,528	-
Proposed dividend relating to treasury stock					51	(51)	-
Purchase of treasury stock		(2,000)					(2,000)
Sale of treasury stock		75					75
Write-down of common stock	(12)	1,946			(1,934)		-
Currency translation adjustments of investments in subsidiaries, etc.			155		-		155
Value adjustment of derivatives					44		44
Other adjustments			8		41		49
Shareholders' equity at December 31, 2019	582	(4,142)	2,116	166	10,119	1,477	10,318

1 Accounting policies

The financial statements of Novozymes A/S have been prepared in accordance with the Danish Financial Statements Act (accounting class D). IFRS 16 was implemented at group level and in the financial statements of Novozymes A/S effective from January 1, 2019.

IFRS 16 was implemented using the modified retrospective approach, and comparative figures have not been restated. See Note 1.2 to the consolidated financial statements for further information. The table below shows the line items that were significantly impacted by the implementation of IFRS 16. The implementation of IFRS 16 had an insignificant impact on the income statement, and hence is not included in the table.

The implementation resulted in additional disclosures. See Note 3.3.

Except for the implementation of IFRS 16, the accounting policies are unchanged from 2018.

DKK million	December 31, 2019	January 1, 2019
Net book value of lease assets included in:		
Land and buildings	73	92
Plant and machinery ¹	100	103
Other equipment	91	115
Non-current lease-liabilities ²	176	254
Current lease liabilities ²	92	56

1. As of January 1, 2019 DKK 92 million was transferred from previously capitalized finance leases

2. As of January 1, 2019 a total of DKK 92 million was transferred from previous finance lease liabilities, included in other payables

The accounting policies are the same as for the consolidated financial statements with the adjustments described below. For a description of the Group's accounting policies, please refer to the consolidated financial statements.

No separate statement of cash flows has been prepared for Novozymes A/S; please refer to the consolidated statement of cash flows.

Recognition and measurement in general

Income is recognized in the income statement as earned.

All costs incurred in generating the year's revenue are also recognized in the income statement, including depreciation, amortization and impairment losses.

Value adjustments of financial assets and liabilities measured at fair value or amortized cost are also recognized in the income statement.

Assets are recognized in the balance sheet when it is considered probable that future economic benefits will flow to the company and the value of the asset can be measured reliably. Liabilities are recognized in the balance sheet when they are considered probable and can be measured reliably. At initial recognition, assets and liabilities are measured at cost. Assets and liabilities are subsequently measured as described below for each item.

The recognition and measurement principles take due account of predictable losses and risks occurring prior to the presentation of financial statements that confirm or refute the conditions prevailing at the reporting date.

Intangible assets

The accounting policies for intangible fixed assets follow those of the Group with the exception of goodwill, which is amortized over a period of 10 years using the straight-line method.

An amount equal to the total capitalized development costs after tax is recognized under Shareholders' equity in Reserve for development costs.

Financial assets

Investments in subsidiaries and investments in associates are recognized initially at cost and subsequently measured using the equity method. The company's share of the equity

of subsidiaries, based on the fair value of the identifiable net assets on the acquisition date, minus or plus unrealized intercompany profits or losses, with the addition of any residual value of goodwill, is recognized under Investments in subsidiaries and Investments in associates respectively in the balance sheet. If the shareholders' equity of subsidiaries or associates is negative and Novozymes A/S has a legal or constructive obligation to cover the company's negative equity, a provision is recognized.

Net revaluation of investments in subsidiaries and associates is recognized under Shareholders' equity in the Revaluation reserve according to the equity method. The reserve is reduced by payments of dividends to the parent company and adjusted to reflect other changes in the equity of subsidiaries.

The proportionate share of the net profits of subsidiaries less goodwill amortization is recognized under Income from investments in subsidiaries in the income statement. Goodwill in subsidiaries is amortized over a period of 10 years using the straight-line method.

Dividend

The dividend proposed for the financial year is shown as a separate item under Shareholders' equity.

2.1 Revenue

DKK million	2019	2018
Geographical distribution:		
Denmark	166	203
Rest of Europe, Middle East & Africa	5,318	5,039
North America	1,032	1,228
Asia Pacific	1,316	1,407
Latin America	428	395
Revenue	8,260	8,272

Reference is made to Note 2.1 to the consolidated financial statements concerning segment information.

2.2 Employee costs

DKK million	2019	2018
Wages and salaries	1,767	1,674
Pensions - defined contribution plans	186	180
Other social security costs	22	21
Other employee costs	88	141
Employee costs	2,063	2,016
Average number of employees in Novozymes A/S	2,688	2,663

In August 2019, Novozymes announced organizational changes related to the updated strategy. As a consequence of the changes, around 125 employees were laid off in Denmark. The employee cost in 2019 include restructuring costs related to this of around DKK 100 million.

The one-off impact is partly offset by reduced employee cost in the remainder of the year.

In addition, the announced changes in the Executive Leadership Team during 2019 has resulted in severance cost of DKK 58 million.

Reference is made to Note 6.1 to the consolidated financial statements concerning remuneration of the Board of Directors and the Executive Leadership Team.

2.3 Other operating income

DKK million	2019	2018
Royalty income relating to subsidiaries	1,228	1,422
Other	9	36
Other operating income	1,237	1,458

3.1 Intangible assets

DKK million	2019				2018	
	Goodwill	Acquired patents, licenses and know-how, etc.	Completed IT development projects	IT development projects in progress	Total	Total
Cost at January 1	1,839	1,688	523	58	4,108	2,999
Additions during the year	758	223	46	51	1,078	1,109
Disposals during the year	-	-	-	-	-	-
Transfers to/(from) other items	-	-	84	(84)	-	-
Cost at December 31	2,597	1,911	653	25	5,186	4,108
Amortization and impairment losses at January 1	(321)	(923)	(418)		(1,662)	(1,290)
Amortization for the year	(281)	(132)	(47)		(460)	(372)
Disposals during the year	-	-	-		-	-
Amortization and impairment losses at December 31	(602)	(1,055)	(465)		(2,122)	(1,662)
Carrying amount at December 31	1,995	856	188	25	3,064	2,446

3.2 Property, plant and equipment

DKK million	2019				2018	
	Land and buildings	Production equipment and machinery	Other equipment	Property, plant and equipment under construction	Total	Total
Cost at January 1	2,507	4,908	946	1,314	9,675	9,001
Lease assets at January 1	92	11	115		218	
Additions during the year	15	50	83	215	363	744
Disposals during the year	-	(18)	(6)	-	(24)	(70)
Transfers to/(from) other items	980	124	96	(1,200)	-	-
Cost at December 31	3,594	5,075	1,234	329	10,232	9,675
Depreciation and impairment losses at January 1	(1,388)	(3,327)	(705)		(5,420)	(5,203)
Depreciation for the year	(99)	(174)	(87)		(360)	(283)
Impairment losses	(5)	-	-		(5)	-
Disposals during the year	-	18	6		24	66
Depreciation and impairment losses at December 31	(1,492)	(3,483)	(786)		(5,761)	(5,420)
Carrying amount at December 31	2,102	1,592	448	329	4,471	4,255

Capitalized interest

Interest of DKK 2 million (2018: DKK 10 million) was capitalized under Additions during the year. Capitalization rate: 0.9% (2018: 1.40%).

Land and buildings with a carrying amount of DKK 1,526 million (2018: DKK 355 million) have been pledged as security to credit institutions. The mortgage loans expire in 2029 and 2039.

NOTES SECTION 3

3.3 Leases

DKK million	2019	2018
Land and buildings	73	-
Plant and machinery	100	92
Other equipment	91	-
Carrying amount of lease assets	264	92

In 2018, DKK 92 million was recognized as finance leases.

Additions to the lease assets during 2019 was DKK 10 million.

Maturity analysis of the lease liability

DKK million	2019	2018
Lease liability		
Less than 1 year	92	3
Between 1 and 5 years	79	15
More than 5 years	103	74
Undiscounted lease liability at December 31	274	92

In 2018, DKK 92 million was recognized as finance lease liability.

DKK million	2019
Amounts recognized in profit or loss	
Interest on lease liabilities	5
Variable lease payments not included in the lease liability	-
Expenses relating to short-term leases	6
Expenses relating to low-value leases	-
Depreciation of lease assets per asset class	
Land and buildings	19
Plant and machinery	5
Other equipment	32
Depreciation of lease assets	56
Amounts recognized in the statement of cash flows	
Total cash outflow for leases	58

3.4 Financial fixed assets

DKK million	Investments in subsidiaries	Investments in associates	Receivables from Group companies	Total
Cost at January 1, 2019	8,650	128	350	9,128
Additions during the year	5	-	10	15
Disposals during the year	-	-	(8)	(8)
Cost at December 31, 2019	8,655	128	352	9,135
Revaluation reserve at January 1, 2019	(487)	(86)		(573)
Share of net profit/(loss)	2,152	(5)		2,147
Elimination of profit on internal asset transfers	(658)	-		(658)
Dividends received	(1,244)	-		(1,244)
Currency translation adjustment	155	-		155
Other adjustments	8	-		8
Revaluation reserve at December 31, 2019	(74)	(91)		(165)
Carrying amount at December 31, 2019	8,581	37	352	8,970

At December 31, 2019, the revaluation reserve included an amount of DKK 2,281 million from the elimination of profit on internal asset transfer.

Reference is made to Note 6.7 to the consolidated financial statements concerning investments in subsidiaries, joint operations and associates.

3.5 Other receivables

DKK million	2019	2018
Prepaid expenses	68	41
Derivatives	15	14
Other receivables	57	36
Other receivables at December 31	140	91
Recognized in the balance sheet as follows:		
Non-current	B/S 2	6
Current	B/S 138	85
Other receivables at December 31	140	91

3.6 Deferred tax

DKK million	2019	2018
Deferred tax at January 1	380	235
Adjustment for previous years	24	(12)
Tax related to the income statement	51	68
Tax on shareholders' equity items	(7)	89
Deferred tax at December 31	448	380

4.1 Financial income and costs

DKK million	2019	2018
Interest income relating to subsidiaries	35	28
Interest costs relating to subsidiaries	(26)	(18)

4.2 Credit institutions

DKK million	2019	2018
Long-term debt to credit institutions falling due after 5 years	1,229	473

4.3 Proposed appropriation of net profit

DKK million	2019	2018
Proposed appropriation of net profit		
Dividend to shareholders	1,528	1,485
Revaluation reserve according to the equity method	2,147	2,434
Retained earnings	(604)	(1,202)
Net profit	3,071	2,717

NOTES SECTION 5

5.1 Contingent liabilities and pending litigation

The below rental commitments relate to noncancelable operating leases, primarily for buildings and offices.

DKK million	2018
Recognized in the income statement in respect of rentals	60
Rental commitments expiring within the following periods from the reporting date:	
Less than 1 year	56
Between 1 and 2 years	30
Between 2 and 3 years	7
Between 3 and 4 years	5
Between 4 and 5 years	4
After 5 years	5
Rental commitments at December 31, 2018	107

DKK million	2019	2018
Other commitments		
Contractual obligations to third parties relating to property, plant and equipment	92	89
Other guarantees		
Other guarantees and commitments to related companies	2,357	2,311
Other guarantees and commitments	151	126

Pending litigation and arbitration
Reference is made to Note 6.3 to the

consolidated financial statements concerning pending litigation and arbitration.

5.2 Related party transactions

Transactions

DKK million	2019	2018
The Novo Nordisk Group		
Sales	103	121
Purchases	(129)	(109)
The NNIT Group		
Purchases	(27)	(32)
The Chr. Hansen Group		
Sales	45	76
Purchases	(9)	(26)

In 2019, Novozymes purchased from Novo Holding 1,530,000 of its own B-shares with the pre-approval of the Board of Directors, at a price of DKK 475 million. The transaction was based on the market price.

There were no transactions with related parties other than the transactions described and normal remuneration of the Board of Directors and Executive Leadership Team, which is presented in Note 6.1 in the consolidated financial statements.

Outstanding balances

DKK million	2019	2018
The Novo Nordisk Group		
Receivables	9	9
Payables	(98)	(76)
The NNIT Group		
Payables	(7)	(5)
The Chr. Hansen Group		
Receivables	10	18
Payables	-	(3)

Reference is made to Note 6.4 to the consolidated financial statements concerning transactions with related parties.

5.3 Fees to statutory auditors

DKK million	2019	2018
Statutory audit	5	4
Other assurance engagements	-	-
Tax advisory services	1	1
Other services	-	1
Fees to statutory auditors	6	6

Reference is made to Note 6.5 to the consolidated financial statements concerning fees to statutory auditors.

5.4 Common stock and treasury stock

Reference is made to Note 5.5 to the consolidated financial statements concerning common stock and treasury stock.

5.5 Derivatives

Reference is made to Note 5.4 to the consolidated financial statements concerning derivatives, as the figures and information in Novozymes A/S are identical to that information.

Glossary

Earnings per share (diluted)

Net profit (attributable to shareholders in Novozymes A/S) divided by the weighted average number of shares outstanding (diluted).

EBIT/Operating profit

Profit before interest and tax.

EBIT margin

Profit before interest and tax as a percentage of revenue.

EBITDA

Profit before interest, tax, depreciation and amortization.

EBITDA margin

Profit before interest, tax, depreciation and amortization as a percentage of revenue.

Economic profit

Economic profit is defined as adjusted operating profit (NOPAT) less (average invested capital * WACC).

Effective tax rate

Income tax expense as a percentage of profit before tax.

Equity ratio

Total shareholders' equity as a percentage of balance sheet total at year-end.

Free cash flow before acquisitions

Cash flow from operating activities less cash flow from investing activities, changes in net working capital, business acquisitions, divestments and purchase of financial assets.

Invested capital

Total assets excluding interest-bearing assets and minority investments less interest-bearing liabilities.

Net interest-bearing debt (NIBD)

The market value of interest-bearing liabilities (financial liabilities) less the market value of cash at bank and in hand and other easily convertible interest-bearing current assets.

Net working capital

Current assets less current liabilities used in, or necessary for, the company's operations. The main components are inventories, trade receivables and trade payables.

Adjusted operating profit after tax

Operating profit adjusted for exchange gains/losses, share of profit in associates less tax on adjusted operating profit using the effective tax rate.

Organic sales growth

Sales growth from existing business, excluding sales from business acquisitions and divestments, measured in local currency.

Return on invested capital (ROIC)

Adjusted operating profit (NOPAT) after tax as a percentage of average invested capital.

About the report

At Novozymes, our reporting ambition is to provide a single integrated report connecting the company's business model, strategy, targets and performance through integrated financial and sustainability data.

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Reporting and audits

The website contains The Novozymes Report 2019, which, pursuant to section 149 of the Danish Financial Statements Act, is an extract of the company's annual report. It also contains the financial statements of the parent company Novozymes A/S. Together, these constitute the company's annual report as filed with the Danish Business Authority.

PwC has audited the consolidated financial statements, the parent company financial statements, and the environmental and social data. PwC is also the sustainability assurance provider, basing its assurance on the AA1000 Assurance Standard (2008).

The audit covers financial, environmental and social data. These are marked "Audited by PwC." See also the statements in the report. PwC has not audited the sections of the report under the headings The big picture, Our business, Governance, and Sustainability. The Sustainability section includes our Communication on Progress prepared in accordance with the UN Global Compact principles, our report index based on the Global Reporting Initiative (GRI) as well as detailed sustainability data regarding our main activities in Argentina, Brazil, Canada, China, Denmark, India and the US.

The report has been prepared in accordance with the International Financial Reporting Standards (IFRS), the Danish Financial Statements Act and additional requirements of Nasdaq Copenhagen A/S for the presentation of financial statements by listed companies. It is also inspired by the GRI's G4 Sustainability Reporting Guidelines. See Basis of reporting in the report for more details.

Forward-looking statements

This annual report contains forward-looking statements, including statements about future events, future financial performance, plans, strategies and expectations. Forward-looking statements are associated with words such as, but not limited to, "believe," "anticipate," "expect," "estimate," "intend," "plan," "project," "could," "may," "might" and other words with a similar meaning.

Forward-looking statements are by their very nature associated with risks and uncertainties that may cause actual results to differ materially from expectations, both positively and negatively. These risks and uncertainties may include unexpected developments in i) the ability to develop and market new products; ii) the demand for Novozymes' products, market-driven price decreases, industry consolidation, and launches of competing products or disruptive technologies in Novozymes' core

areas; iii) the ability to protect and enforce the company's intellectual property rights; iv) significant litigation or breaches of contract; v) the materialization of the company's growth platforms, notably the opportunity for marketing biomass conversion technologies or the development of microbial solutions for broad-acre crops; vi) political conditions, such as acceptance of enzymes produced by genetically modified organisms; vii) global economic and capital market conditions, including, but not limited to, currency exchange rates (USD/DKK and EUR/DKK in particular, but not exclusively), interest rates and inflation; and viii) significant price decreases for inputs and materials that compete with Novozymes' biological solutions. The company undertakes no duty to update any forward-looking statements as a result of future developments or new information.



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