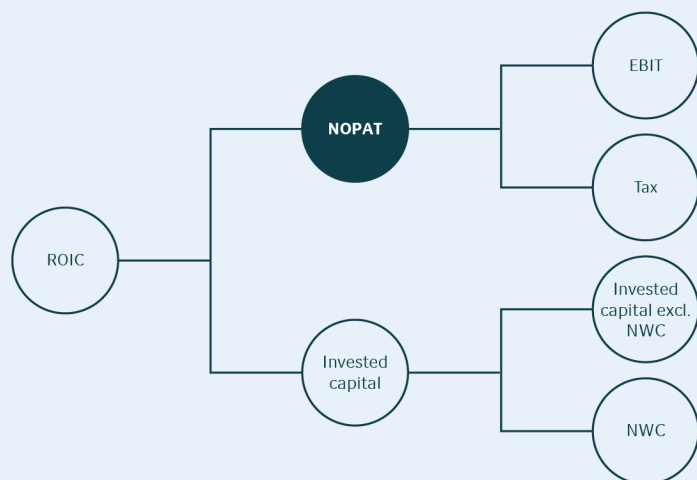


## Net operating profit after tax

# Net operating profit after tax



DKK million	Note	2017	2016
Revenue	2.2	14,531	14,142
Cost of goods sold		(6,118)	(6,016)
<b>Gross profit</b>		<b>8,413</b>	<b>8,126</b>
Sales and distribution costs		(1,619)	(1,622)
Research and development costs	2.4	(1,913)	(1,865)
Administrative costs		(831)	(810)
Other operating income, net	2.5	(3)	117
<b>Operating profit (EBIT)</b>		<b>4,047</b>	<b>3,946</b>
Exchange gains/(losses)		27	(2)
Tax on adjusted operating profit		(795)	(844)
Share of loss in associates	3.4	(14)	(31)
<b>Adjusted operating profit (NOPAT)</b>		<b>3,265</b>	<b>3,069</b>
<b>Average invested capital</b>		<b>12,732</b>	<b>12,238</b>
<b>ROIC</b>		<b>25.6%</b>	<b>25.1%</b>

## Organic sales growth

# 4%

## EBIT grew by 3% to DKK million

# 4,047

## The EBIT margin was unchanged from 2016 at

# 27.9%



## Net operating profit after tax

# 2.1 Segments

### 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 single largest market, contributing ~32% of the Group's revenue (2016: ~31%).

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 (2016: ~47%, ~33% and ~14%).

### Revenue 2017 (2016)



DKK million

### Intangible assets and property, plant and equipment 2017 (2016)



DKK million

### Net investments 2017 (2016)



DKK million

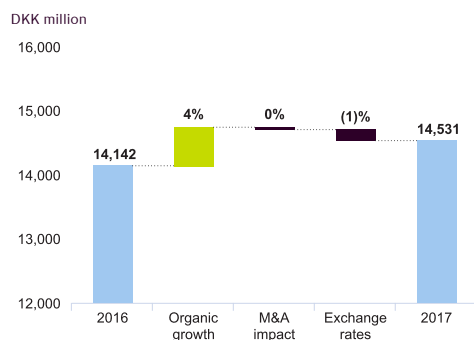
## Net operating profit after tax

# 2.2 Revenue

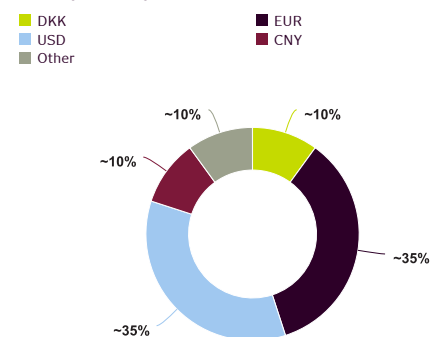
DKK million	2017	2016
Household Care	4,717	4,702
Food & Beverages	4,041	3,740
Bioenergy	2,644	2,438
Agriculture & Feed	2,108	2,206
Technical & Pharma	1,021	1,056
<b>Revenue</b>	<b>14,531</b>	<b>14,142</b>
Emerging markets	5,023	4,938
Developed markets	9,508	9,204
<b>Revenue</b>	<b>14,531</b>	<b>14,142</b>
Sales to the five largest customers as a percentage of revenue	30%	33%

Approximately 1% of the Group's total revenue arises from royalties.

### Sales growth 2017



### Sales by currency 2017



### CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

The Group has entered into partnerships where the Group 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 the Group based on predetermined profit-sharing mechanisms. Revenue related to this type of

partnership comprises approximately 13% of Novozymes' total annual revenue.

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

### ACCOUNTING POLICIES

Revenue includes sales of goods and related services and royalties, less goods returned and volume and cash discounts. Sales are recognized at the time of risk transfer relating to the goods sold, provided that the revenue can be measured on a reliable basis and payment is expected to be received. A liability is recognized when it is contractually agreed that goods can be returned and this is likely.

profit is distributed between the Group and the other contracting party on the basis of a predetermined formula.

Sales from these arrangements are recognized using information on the other contracting party's realized sales. Distribution of the profit is calculated and settled periodically, and a receivable/liability is recognized for any unsettled profit at the reporting date.

The Group has entered into agreements where the other contracting party undertakes sales to third parties and the

The Group has entered into commission agreements where agents undertake sales to third parties in return for commission on realized sales.

## Net operating profit after tax

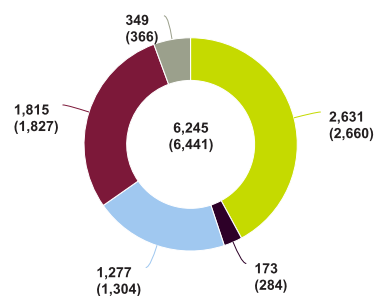
# 2.3 Employees

DKK million	2017	2016
Wages and salaries	2,965	3,007
Pensions – defined contribution plans	289	302
Other social security costs	273	262
Other employee costs	139	131
Stock-based payment	107	144
<b>Employee costs</b>	<b>3,773</b>	<b>3,846</b>
Recognized in the income statement under the following items:		
Cost of goods sold	1,342	1,378
Sales and distribution costs	811	830
Research and development costs	1,070	1,106
Administrative costs	531	517
	<b>3,754</b>	<b>3,831</b>
Change in employee costs recognized in Inventories	19	15
<b>Employee costs</b>	<b>3,773</b>	<b>3,846</b>

**Number of employees 2017 (2016)**



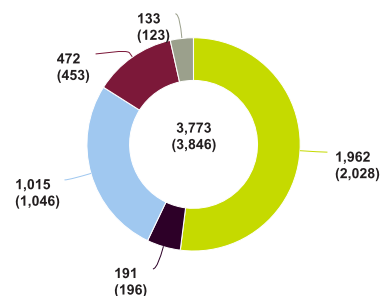
No.



**Employee costs 2017 (2016)**



DKK million



## Net operating profit after tax

# 2.3 Employees (continued)

	2017	2016
Average number of employees in the Group	6,301	6,408
Average number of employees who work with R&D	1,473	1,502
Number of employees outside Denmark as a percentage of total number of employees	58%	59%
Part-time employees	272	292
Full-time employees	5,973	6,149
<b>Employees</b>	<b>6,245</b>	<b>6,441</b>
Senior management	186	207
Management	1,122	1,169
Professional	1,816	1,868
Administrative	558	571
Skilled workers, laboratory technicians and other technicians	1,344	1,422
Process operators	1,219	1,204
<b>Employees by category</b>	<b>6,245</b>	<b>6,441</b>

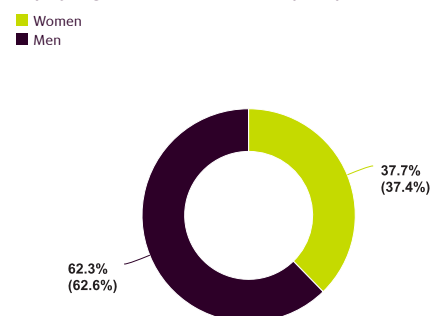
### ACCOUNTING POLICIES

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 above are stated as full-time employees.

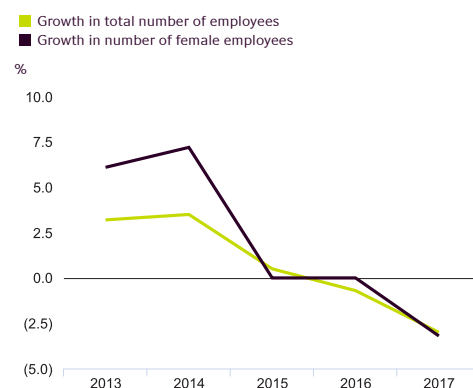
The average number of employees is calculated as the average of the number of permanent employees at the end of each quarter.

Job categories are defined as follows: Senior management comprises the CEO, executive 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.

Employee gender distribution 2017 (2016)



Employee growth



## Net operating profit after tax

# 2.4 Research and development costs

DKK million	Note	2017	2016
Internal and external research and development costs		615	573
Employee costs	2.3	1,070	1,106
Amortization and impairment losses, intangible assets	3.1	122	92
Depreciation and impairment losses, property, plant and equipment	3.2	106	94
<b>Total research and development costs</b>	I/S	<b>1,913</b>	<b>1,865</b>
As a percentage of revenue		13.2%	13.2%

In 2017, Novozymes launched eight new products (2016: eight new products). New products comprises products with new or improved characteristics.

In 2017, Novozymes had 1,049 active patent families (2016: 1,123). Active patent families comprises the number of inventions for which there are one or more active patent applications or active patents at year-end.

Reference is made to the Innovation pipeline update in the business model for an overview of significant market-expanding opportunities that are currently being pursued in Research & Development.



### ACCOUNTING POLICIES

Research and development costs primarily comprise employee costs, internal and external costs related to development of new products and to 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	2017	2016
Income and grants concerning research projects/ collaborations	26	29
Other secondary income, net	37	88
Loss on divestment of Albumedix	(66)	-
<b>Other operating income, net</b>	<b>(3)</b>	<b>117</b>

### § 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 in 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 the tax authorities to reduce this risk, and has entered into advance pricing

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

For Novozymes, such agreements create predictability in relation to taxation and reduce the risk of Novozymes becoming part of the ongoing transfer-pricing debate around the world. A major part of internal transactions in the Group is covered by advance pricing agreements. See Novozymes' Position on Tax on Novozymes.com.

### Joint taxation

Novozymes A/S and its Danish subsidiaries are jointly taxed with the Danish companies in the Novo Holdings A/S Group. The 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. The tax for the individual companies is allocated in full on the basis of the expected taxable income.

### Tax in the income statement

DKK million	2017	2016
Tax payable on net profit	(1,015)	(940)
Change in deferred tax	253	124
Revaluation of deferred tax due to changes in corporate tax rate	(33)	-
Adjustment for previous years	39	(15)
<b>Tax in the income statement</b>	<b>(756)</b>	<b>(831)</b>
Calculation of effective tax rate:		
Corporate tax rate in Denmark	(22.0)%	(22.0)%
Non-taxable income less non-deductible expenses	(0.6)%	(0.2)%
Difference in foreign tax rates	2.9%	0.4%
Revaluation of deferred tax due to changes in corporate tax rate	(0.8)%	-
Other adjustments	1.0%	0.4%
<b>Effective tax rate</b>	<b>(19.5)%</b>	<b>(21.4)%</b>



### 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 necessarily 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 can be substantial differences between the tax charge in the consolidated income statement and actual tax payments.

In 2017, Novozymes transferred intellectual property (IP) from Switzerland to Denmark. This had a positive impact on the 2017 effective tax rate of roughly 2 percentage points, included in "Difference in foreign tax rates". The one-time impact of adjusting deferred tax to the new US tax rate is shown as "Revaluation of deferred tax due to changes in corporate tax rate".



## Net operating profit after tax

# 2.6 Tax (continued)

### Deferred tax

DKK million	Deferred tax assets		Deferred tax liabilities	
	2017	2016	2017	2016
Intangible assets and property, plant and equipment	536	484	(1,064)	(1,271)
Inventories	441	533	(156)	(163)
Tax loss carry-forwards	6	41	-	-
Stock options	185	70	-	-
Other	255	287	(169)	(228)
	<b>1,423</b>	<b>1,415</b>	<b>(1,389)</b>	<b>(1,662)</b>
Offsetting items	(668)	(808)	668	808
<b>Deferred tax at December 31</b>	<b>755</b>	<b>607</b>	<b>(721)</b>	<b>(854)</b>

The tax value of the unrecognized share of tax loss carry-forwards, tax credits, etc. that do not expire amounted to DKK 26 million (2016: DKK 13 million).

DKK million	2017	2016
Deferred tax at January 1	(247)	(256)
Currency translation adjustments	(33)	13
Effect of business acquisitions	-	(64)
Tax related to the income statement	240	172
Tax on shareholders' equity items	74	(112)
<b>Deferred tax at December 31</b>	<b>34</b>	<b>(247)</b>
Deferred tax assets	755	607
Deferred tax liabilities	(721)	(854)
<b>Deferred tax at December 31</b>	<b>34</b>	<b>(247)</b>

### § ACCOUNTING POLICIES

Corporation tax, comprising the current tax liability, change in deferred tax for the year and possible adjustments relating to previous years, is recognized in the income statement, except to the extent that 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 is to be paid or received. Deferred tax is measured using the balance sheet liability method and comprises all temporary differences between the carrying amount and 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 the temporary differences. Changes in deferred tax due to tax rate changes are recognized in the income statement, except to the extent that 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	2017	2016
Tax payable, net, at January 1	(295)	(213)
Currency translation adjustments	(5)	9
Tax related to the income statement	(996)	(1,002)
Tax on shareholders' equity items	96	6
Tax paid for the current year, net	852	905
<b>Tax payables, net, at December 31</b>	<b>(348)</b>	<b>(295)</b>
Tax receivables	B/S 135	142
Tax payables	B/S (483)	(437)
<b>Tax payables, net, at December 31</b>	<b>(348)</b>	<b>(295)</b>
Of which due within 12 months	(70)	(59)
Of which due after more than 12 months	(278)	(236)
<b>Tax payables, net, at December 31</b>	<b>(348)</b>	<b>(295)</b>
Corporate income taxes paid are specified as follows:		
Income taxes paid in Denmark	527	633
Income taxes paid outside Denmark	325	272
<b>Total income taxes paid</b>	<b>852</b>	<b>905</b>

## Net operating profit after tax

# 2.7 Earnings per share

DKK million	2017	2016
<b>Profit used to calculate earnings per share</b>	1/S <b>3,119</b>	<b>3,050</b>
<b>Average number of shares</b>		
Weighted average number of shares in circulation	295,338,610	300,466,604
Average dilutive effect of outstanding stock options and stock awards	1,863,742	2,653,533
<b>Average number of diluted shares</b>	<b>297,202,352</b>	<b>303,120,137</b>
Earnings per share	DKK 10.56	DKK 10.15
Earnings per share, diluted	DKK 10.49	DKK 10.06



### 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.”