4

CONSOLIDATED FINANCIAL STATEMENTS

Consolidated statement of **profit and loss**

€ thousand	Notes	2019	2019	2018	2018
Revenue	19	3,958,875		3,853,980	
Changes in inventories of finished goods and work in progress	5	8,737		1,102	
Other own work capitalised	20	63,017		49,622	
Other operating income	21	99,826	4,130,455	114,492	4,019,196
Goods and services purchased	22				
Expenses for materials and supplies and for goods purchased		−1,525,551		−1,523,504	
Expenses for services purchased		−516,237	−2,041,788	−508,521	−2,032,025
Personnel expenses	23				
Wages and salaries		−1,065,065		−944,876	
Social security contributions and expenses for pension plans and for benefits		−210,453	−1,275,518	−192,390	−1,137,266
Depreciation and amortisation of intangible assets and property, plant and equipment	1/2		−183,315		−102,736
Other operating expenses	24		−585,885		−544,018
EBIT			**43,949**		**203,151**
Investment income	25	5,588		8,747	
Profit or loss shares attributable to associates that are accounted for using the equity method	4	−686		821	
Income from other securities and loans classified as non-current financial assets	25	0		2	
Interest and similar income	25	7,520		6,121	
Interest and similar expenses	25	−14,628		−14,592	
Financial income/expense	25		**−2,206**		**1,099**
Earnings before taxes			**41,743**		**204,250**
Income tax	8/26		−32,501		−53,650
Consolidated net income			**9,242**		**150,600**
Profit share of non-controlling interests			−249		−483
Profit share of KRONES Group shareholders			**9,491**		**151,083**
Earnings per share (diluted/basic) in €	27		0.30		4.78

Consolidated statement of **comprehensive income**

€ thousand	Notes	2019	2018
Consolidated net income		**9,242**	**150,600**
Items that will not be reclassified subsequently to profit or loss			
Remeasurement of defined benefit plans	12	–26,568	4,396
		–26,568	4,396
Items that may be reclassified subsequently to profit or loss			
Exchange differences on translation		7,868	–2,279
Cash flow hedges	12	–585	–2,380
		7,283	–4,659
Other comprehensive expenses and income after income taxes	9	**–19,285**	**–263**
Total comprehensive income	9	**–10,043**	**150,337**
of which attributable to non-controlling interests		–249	–483
of which attributable to KRONES Group shareholders		–9,794	150,820

Consolidated statement of financial position – **Assets**

€ thousand	Notes	31 Dec 2019		31 Dec 2018	
Intangible assets	1	345,152		328,183	
Property, plant and equipment	2	693,185		570,820	
Non-current financial assets	3	28,127		8,770	
Investments accounted for using the equity method	4	3,369		28,661	
Fixed assets		**1,069,833**		**936,434**	
Deferred tax assets	8	41,617		32,450	
Trade receivables	6	28,913		32,578	
Tax receivables		252		49	
Other assets	6	13,434		8,248	
Non-current assets			**1,154,049**		**1,009,759**
Inventories	5	382,523		320,734	
Trade receivables	6	932,876		955,392	
Contract assets	6/19	571,261		647,089	
Tax receivables		16,360		11,733	
Other assets	6	151,985		157,880	
Cash and cash equivalents	7	110,382		218,802	
Current assets			**2,165,387**		**2,311,630**
Total			**3,319,436**		**3,321,389**

Consolidated statement of financial position – **Equity and liabilities**

€ thousand	Notes	31 Dec 2019		31 Dec 2018	
Subscribed capital	9	40,000		40,000	
Capital reserves	10	141,724		141,724	
Profit reserves	11	340,278		331,521	
Other reserves	12	−116,313		−89,160	
Consolidated retained earnings		964,966		1,009,193	
Consolidated equity of the parent company			**1,370,655**		**1,433,278**
Non-controlling interests	13	−629		−72	
Equity			**1,370,026**		**1,433,206**
Provisions for pensions	14	260,194		220,550	
Deferred tax liabilities	8	3,673		23,344	
Other provisions	15	75,192		63,658	
Tax liabilities		5,356		4,434	
Liabilities to banks	16	64		3,169	
Trade payables	16	14		1	
Other financial obligations and lease liabilities	16	104,912		41,302	
Other liabilities	16	2,600		2,298	
Non-current liabilities			**452,005**		**358,756**
Other provisions	15	141,048		107,230	
Liabilities to banks	16	72,178		555	
Contract liabilities	16/19	442,884		547,222	
Trade payables	16	463,722		491,585	
Tax liabilities		16,868		14,510	
Other financial obligations and lease liabilities	16	34,887		106,670	
Other liabilities and accruals	16	352,818		261,655	
Current liabilities			**1,497,405**		**1,529,427**
Total			**3,319,436**		**3,321,389**

Consolidated statement of **cash flows**

€ thousand	Notes	2019	2018
Earnings before taxes		41,743	204,250
Depreciation and amortisation and reversals	1/2	183,315	102,736
Increase (previous year: decrease) in provisions and accruals	15/16	105,928	−85,721
Interest and similar expenses and income	25	7,108	8,471
Gains and losses from the disposal of non-current assets	21/24	−216	27
Other non-cash expenses and income		13,252	−6,234
Decrease in trade receivables, contract assets and other assets not attributable to investing or financing activities		114,345	10,189
Increase in inventories	5	−59,421	−39,102
Decrease (previous year: increase) in trade payables, contract liabilities and other liabilities not attributable to investing or financing activities		−258,388	195,221
Cash generated from operating activities		**147,666**	**389,837**
Interest paid		−4,354	−923
Income tax paid and refunds received		−49,787	−73,861
Cash flow from operating activities		**93,525**	**315,053**
Cash payments to acquire intangible assets	1	−61,265	−57,581
Proceeds from the disposal of intangible assets	1	411	43
Cash payments to acquire property, plant and equipment	2	−107,644	−121,547
Proceeds from the disposal of property, plant and equipment	2	8,994	2,363
Cash payments to acquire non-current financial assets		−12,692	−7,159
Proceeds from the disposal of non-current financial assets		92	680
Cash payments to acquire affiliated companies		−27,952	−24,753
Interest received		5,325	2,819
Dividends received		6,807	10,740
Cash flow from investing activities		**−187,924**	**−194,395**
Cash payments to owners		−53,708	−53,708
Proceeds from new borrowing		72,178	524
Cash payments to service debt		−3,660	−24,620
Cash payments to acquire non-controlling interests		−1,915	0
Cash payments for the repayment of lease liabilities		−32,156	−98
Cash flow from financing activities		**−19,261**	**−77,902**
Net change in cash and cash equivalents		**−113,660**	**42,756**
Changes in cash and cash equivalents arising from changes in exchange rates		1,475	−6,417
Changes in cash and cash equivalents arising from changes in the consolidated group		3,765	468
Cash and cash equivalents at the beginning of the period		218,802	181,995
Cash and cash equivalents at the end of the period	7	**110,382**	**218,802**

Consolidated statement of **changes in equity**

	Parent company							Non-controlling interests	Consolidated equity
€ thousand	Share capital	Capital reserves	Profit reserves	Currency differences in equity	Other reserves	Group retained earnings	Equity	Equity	
Notes	9	10	11	11	12			13	
At 1 January 2018	**40,000**	**141,724**	**377,381**	**−35,864**	**−91,176**	**912,794**	**1,344,859**	**−3,085**	**1,341,774**
Dividend payment (€1.70 per share)						−53,708	**−53,708**		**−53,708**
Consolidated net income 2018						151,083	**151,083**	−483	**150,600**
Allocation to profit reserves			776			−776	**0**		**0**
Changes in the consolidated group			−8,493			−200	**−8,693**	3,496	**−5,197**
Other comprehensive expenses and income				−2,279	2,016		**−263**		**−263**
At 31 December 2018	**40,000**	**141,724**	**369,664**	**−38,143**	**−89,160**	**1,009,193**	**1,433,278**	**−72**	**1,433,206**
Dividend payment (€1.70 per share)						−53,708	**−53,708**		**−53,708**
Consolidated net income 2019						9,491	**9,491**	−249	**9,242**
Allocation to profit reserves						0	**0**		**0**
Changes in the consolidated group			889			−10	**879**	−308	**571**
Other comprehensive expenses and income				7,868	−27,153		**−19,285**		**−19,285**
At 31 December 2019	**40,000**	**141,724**	**370,553**	**−30,275**	**−116,313**	**964,966**	**1,370,655**	**−629**	**1,370,026**

5

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Consolidated **segment reporting**

€ thousand	Machines and Lines for Product Filling and Decoration		Machines and Lines for Beverage Production/ Process Technology		KRONES Group	
	2019	2018	2019	2018	2019	2018
Revenue	**3,265,417**	**3,177,850**	**693,458**	**676,130**	**3,958,875**	**3,853,980**
Depreciation, amortisation and impairments	155,600	89,949	27,715	12,787	183,315	102,736
of which impairments	29,201	1,644	8,931	0	38,132	1,644
Interest income	5,812	4,770	477	788	6,289	5,558
Interest expense	4,537	2,456	1,747	1,387	6,284	3,843
EBT	**56,405**	**223,295**	**−14,662**	**−19,045**	**41,743**	**204,250**
Share of profit or loss of associates accounted for using the equity method	−330	821	−356	0	−686	821
EBIT	**62,850**	**223,544**	**−18,901**	**−30,393**	**43,949**	**203,151**
EBT margin (EBT to revenue)	**1.7%**	**7.0%**	**−2.1%**	**−2.8%**	**1.1%**	**5.3%**

General **disclosures**

Legal basis

KRONES provides machinery and systems for bottling and packaging and for beverage production. Innovative digitalisation and intralogistics solutions round out the portfolio. KRONES AG, which is registered in the Commercial Register of Regensburg Local Court (HRB 2344) and is headquartered in Neutraubling, Germany.

The consolidated financial statements of KRONES AG, Neutraubling (the "KRONES Group") for the period ended 31 December 2019 have been prepared in accordance with the International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB), London, applicable at the reporting date, including the interpretations issued by the International Financial Reporting Interpretation Committee (IFRIC), as adopted by the European Union.

The group has not undertaken early application of IFRS standards and interpretations that have not yet entered into force. *A list of such standards and interpretations and of standards applied for the first time is provided on page 186.* The commercial law stipulations under Section 315e (1) of the German Commercial Code (HGB) have been complied with in addition. The Executive Board authorised the publication of the consolidated financial statements on 12 March 2020.

Non-controlling interests in consolidated equity are presented on the statement of financial position as a separate item within equity. On the statement of profit and loss, the share of profit or loss attributable to non-controlling interests is presented as a component of consolidated net income. The shares of consolidated net income attributable to the owners of the parent and to non-controlling interests are presented separately.

Non-controlling interests are additionally shown on the statement of changes in equity.

The explanatory notes provided in the following comprise disclosures and commentary that, in accordance with IFRS, must be included as notes to the interim consolidated financial statements in addition to the statement of financial position, statement of profit and loss, statement of comprehensive income, statement of changes in equity and statement of cash flows.

The statement of profit and loss was prepared using the nature of expense method.

The group currency is the euro.

Unless otherwise stated, all financial information presented in euros is rounded to the nearest thousand.

Consolidated group

Besides KRONES AG, the consolidated financial statements of KRONES AG for the period ended 31 December 2019 include all domestic and foreign subsidiaries over which KRONES AG has direct or indirect control on account of a majority of voting rights.

In a step acquisition over the course of the 2019 financial year, 100% of the remaining ownership interest was acquired in AUTOMATA S.A., Guatemala City, Guatemala. In addition, the remaining 60% ownership interest was acquired in INTEGRATED PACKAGING SYSTEMS (IPS) FZCO, Dubai, United Arab Emirates (UAE). KRONES now has a 100% ownership interest in the company. It was previously accounted for using the equity method.

Also during the financial year, KRONES MIDDLE EAST AFRICA FZCO, Dubai, United Arab Emirates, was established and included in the scope of consolidation together with KRONES INDIA PVT. LTD., Bangalore, India.

On 1 April 2019, KRONES acquired the remaining 60% ownership interest in INTEGRATED PACKAGING SYSTEMS (IPS) FZCO, Dubai, United Arab Emirates (UAE). This acquisition strengthens KRONES' distribution structure in the Middle East/Africa region.

With the acquisition of 100% of the business operations of AUTOMATA S.S., Guatemala City, Guatemala on 1 June 2019, KRONES strengthened its capabilities in process technology.

Initial accounting of the acquired business operations was completed as of the acquisition date. For the effect on profit or loss from measurement of the previously held interests at fair value, please see under financial income/expense.

The table below presents the consideration transferred for the acquisitions and the fair values of the assets identified and liabilities assumed at the acquisition date.

€ thousand	IPS DUBAI	Other	Total
	Fair value	Fair value	Fair value
Goodwill	34,408	2,881	37,289
Non-current assets	6,634	1,358	7,992
Current assets	23,837	1,154	24,991
(of which trade receivables)	9,710	1,063	10,773
Cash and cash equivalents	1,794	1,395	3,189
Total assets acquired	**66,673**	**6,788**	**73,461**
Liabilities	18,032	3,526	21,558
Total liabilities acquired	**18,032**	**3,526**	**21,558**
Net assets acquired	**48,640**	**3,262**	**51,902**
Non-controlling interests	**0**	**0**	**0**
Purchase prices	48,640	3,262	51,902
of which paid in cash	29,184	1,957	31,141
of which fair value of previously held interests	19,456	1,304	20,761

The goodwill recognised for INTEGRATED PACKAGING SYSTEMS (IPS) FZCO relates to the strengthening of the sales, distribution and service structure in the Middle East/Africa region. This earnings potential, which cannot be allocated to items capable of recognition as assets under IFRS, is reflected in goodwill.

The goodwill recognised for AUTOMATA S.S. relates to the strengthening of the service structure by the integration of AUTOMATA S.S. and its workforce in the group. This earnings potential, which cannot be allocated to items capable of recognition as assets under IFRS, is reflected in goodwill.

The total amount of goodwill that is expected to be deductible for tax purposes is €0 thousand.

The fair value of trade receivables equals the gross amount. None of the trade receivables are impaired and the contractually agreed amounts are expected to be recoverable in their entirety.

INTEGRATED PACKAGING SYSTEMS (IPS) FZCO contributed a net profit of €370 thousand and revenue of €2,188 thousand to KRONES from the acquisition date to 31 December 2019. Had initial accounting for INTEGRATED PACKAGING SYSTEMS (IPS) FZCO been completed as of January 1, 2019, revenue of €2,917 thousand and a net profit of €493 thousand would have been recognised in the consolidated statement of profit and loss.

AUTOMATA S.S. contributed a net profit of €20 thousand to KRONES from the acquisition date to 31 December 2019. As the company only provides services within the group, no consolidated revenues are included. Had initial accounting for AUTOMATA S.S. been completed as of January 1, 2019, the net profit would have been €34 thousand.

The costs directly attributable to the acquisitions amount to €181 thousand and were recognised as expense.

Consolidation principles

The annual financial statements of KRONES AG and of the domestic and foreign subsidiaries included in the consolidated financial statements have been prepared using uniform accounting policies, in accordance with IFRS 10. They are all prepared as of the reporting date of the consolidated financial statements.

Acquisition accounting is performed in accordance with IFRS 3 (Business Combinations), under which all business combinations must be accounted for using the acquisition method. The acquired assets and liabilities are therefore recognised at fair value.

Goodwill that arose before 1 January 2004 continues to be accounted for as a deduction from equity.

Shares in the equity of a subsidiary that are not attributable to the parent are presented as non-controlling interests. If an acquisition includes put options granted to non-controlling interests for their interests in group companies and KRONES has identical call options, the options are accounted for as if they had already been exercised and each is recognised as a liability at fair value instead of recognising non-controlling interests (anticipated acquisition method). The liabilities are measured through profit or loss at fair value as of the reporting date.

Inter-company receivables, liabilities, provisions, income and expenses between consolidated companies are eliminated in consolidation. This also applies for inter-company profits or losses from deliveries made or services provided between group companies provided the inventories from these transactions are still held by the group at the reporting date.

Companies for which KRONES has the ability to exercise significant influence over their business and financial policies (generally by indirectly or directly holding between 20% and 50% of voting rights), are accounted for in the consolidated financial statements using the equity method and initially recognised at cost. Any excess of the cost of the investment over KRONES' share of the net fair value of an associate's identifiable assets and liabilities is adjusted on a fair-value basis and the remaining amount is recognised as goodwill. Goodwill relating to the acquisition of an associate is included in the carrying amount of the investment and is not amortised. Instead, it is tested for impairment as part of the entire carrying amount of the investment in the associate. KRONES' share in an associate's profit or loss subsequent to the acquisition date is recognised in the consolidated statement of profit and loss. The carrying amount of the associate is increased or decreased to recognise cumulative changes in fair value subsequent to the acquisition date. KRONES' share in associates' gains or losses resulting from transactions between KRONES and its associates is eliminated.

Currency translation

The consolidated financial statements are presented in euros, the functional currency of KRONES AG.

The financial statements of consolidated companies that are prepared in a foreign currency are translated on the basis of the functional currency approach. Because the subsidiaries primarily operate independently in the economic environment of their respective countries, the functional currency is normally the local currency for each subsidiary. In the consolidated financial statements, assets and liabilities are therefore translated at the closing rate at the reporting date, while income and expenses from the financial statements of subsidiaries are translated at average annual rates.

Any exchange differences resulting from translation using these different rates in the statement of financial position and the statement of profit and loss are recognised directly in other comprehensive income. Exchange differences resulting from the translation of equity using historical exchange rates are also recognised in other comprehensive income.

Exchange rate differences compared with the previous year arising from acquisition accounting are normally recognised outside profit or loss, in other profit reserves.

In the separate financial statements of KRONES AG and its subsidiaries, receivables and liabilities in foreign currencies are translated using the exchange rate at the time of the transaction and exchange differences are recognised in profit or loss at the closing rate at the reporting date. Non-monetary items in foreign currencies are carried at historical cost.

Exchange rates of subsidiaries' functional currencies against the euro:

		Closing rate		Average rate	
		31 Dec 2019	31 Dec 2018	2019	2018
US dollar	USD	1.123	1.145	1.120	1.182
British pound	GBP	0.850	0.897	0.878	0.885
Swiss franc	CHF	1.086	1.127	1.113	1.155
Danish krone	DKK	7.471	7.468	7.466	7.453
Canadian dollar	CAD	1.462	1.560	1.486	1.530
Japanese yen	JPY	121.930	125.960	122.061	130.454
Brazilian real	BRL	4.513	4.445	4.413	4.305
Chinese renminbi (yuan)	CNY	7.833	7.860	7.719	7.806
Mexican peso	MXN	21.239	22.520	21.566	22.707
Ukrainian hryvnia	UAH	26.610	31.735	28.934	32.136
South African rand	ZAR	15.765	16.470	16.172	15.617
Kenyan shilling	KES	113.794	116.642	114.219	119.671
Nigerian naira	NGN	408.970	416.290	405.052	425.572
Russian rouble	RUB	69.844	80.026	72.477	74.008
Thai baht	THB	33.445	37.048	34.770	38.182
Indonesian rupiah	IDR	15,587.100	16,468.500	15,833.329	16,801.557
Angolan kwanza	AOA	537.803	352.423	404.416	296.577
Turkish lira	TRY	6.680	6.056	6.357	5.700
Kazakhstan tenge	KZT	429.940	440.150	428.853	407.128
Australian dollar	AUD	1.601	1.623	1.611	1.580
New Zealand dollar	NZD	1.666	1.706	1.700	1.707
Swedish krona	SEK	10.445	10.251	10.587	10.257
Vietnamese dong	VND	26,018.000	26,564.000	26,006.790	27,201.202
Philippine peso	PHP	56.869	60.125	58.000	62.253
Bangladeshi taka	BDT	95.319	95.753	94.522	99.179
Singapore dollar	SGD	1.511	1.560	1.527	1.593
Myanmar kyat	MMK	1,657.230	1,769.390	1,704.062	1,701.225
United Arab Emirates dirham	AED	4.124	4.207	4.113	4.341
Hungarian forint	HUF	330.610	321.060	325.278	318.819
Malaysian ringgit	MYR	4.593	4.733	4.638	4.764
Pakistani rupee	PKR	173.880	160.104	168.356	143.257
Polish zloty	PLN	4.260	4.298	4.298	4.261
Norwegian krone	NOK	9.866	9.940	9.852	9.600
Indian rupee	INR	80.150	79.909	78.803	80.711
Guatemalan quetzal	GTQ	8.651	8.850	8.622	8.887
Cambodian riel	KHR	4,575.300	4,601.600	4,542.179	4,779.214
Bulgarian lev	BGN	1.956	1.956	1.956	1.956

Estimates and judgements

In preparing the consolidated financial statements, management makes judgements, estimates and assumptions that affect the reported amounts of assets and liabilities as of the reporting date, the disclosure of contingent liabilities and the reported amounts of expenses and income. The uncertainty inherent in such assumptions and estimates can, however, lead to events that result in material adjustments to the carrying amounts of affected assets and liabilities in future periods.

Major assumptions made about the future, and other sources of estimation uncertainty at the end of the reporting period that have a significant risk of resulting in material adjustments to the carrying amounts of assets and liabilities within the next financial year, are explained in the following.

Development costs are capitalised if they are associated with a future economic benefit and the remaining requirements in IAS 38.57 are met.

If there are indications that intangible assets are impaired or if annual impairment testing is required (intangible assets with an indefinite useful life, intangible assets in the development phase and goodwill), an impairment test is applied.

This is done by comparing the carrying amount of an asset (or cash-generating unit) with its recoverable amount. The first step of this comparison consists of determining value in use. If value in use is less than the carrying amount, fair value less costs of disposal is determined and compared with the carrying amount. If fair value less costs of disposal is less than the carrying amount, an impairment loss is recognised by reducing the carrying amount to the higher of value in use and fair value less costs of disposal.

Impairment testing involves making estimates and assumptions that may differ from the actual amounts in particular with regard to future cash and cash equivalents, cash flows and the planning period. The actual amounts may differ from the assumptions and estimates made if the conditions referred to change contrary to expectations.

KRONES determines value in use using a present value method (the discounted cash flow method). The cash flows used in the calculation are based on long-term corporate planning prepared by management. They are discounted at market discount rates.

The cash flows used in testing goodwill are taken as a rule from the detailed planning for the next three financial years. Revenue growth at the end of the forecast period is the long-term growth rate of the respective industrial sectors and countries in which the cash-generating units do business. They are discounted at market discount rates. Cash-generating units are tested for impairment using the pre-tax weighted average cost of capital (WACC). For the main assumptions made in impairment testing of cash-generating units, sensitivity analyses are carried out in order to rule out the possibility that reasonably possible changes in the assumptions used to determine the recoverable amount would lead to an impairment.

Purchase agreements for acquisitions include options for KRONES to acquire the remaining minority interests. If the seller holds identical put options, the group assumes that the option will be exercised and therefore does not present the minority interests in the consolidated financial statements (anticipated acquisition method). Instead, a liability from the acquisition is recognised at fair value. The fair value is measured using the discounted cash flow method; the main input factors are medium-term planning and the discount rate. With regard to the exercise date, it is assumed as a rule that the probability of exercise is evenly distributed unless otherwise indicated. Impairment testing involves making estimates and assumptions about the timing. The actual amounts may differ from the assumptions and estimates made if the conditions referred to change contrary to expectations. Further details are provided in Note 18.

Accounting for deferred tax assets, which are mainly recognised for unused tax loss carryforwards, requires management to make estimates and judgements regarding the size of the future taxable profits that will be available against which the unused tax losses can be utilised. Tax planning strategies and the expected timing of events under such strategies are taken into account if they are sufficiently probable. Deferred tax assets are recognised as a rule to the extent that deductible deferred tax liabilities are expected in the same amount and with the same timing. Otherwise, deferred tax assets are only recognised if it is highly likely that sufficient future taxable profits will be available against which the deferred tax assets recognised for loss carryforwards and temporary differences can be utilised. For the purpose of this assessment, expected taxable income is taken from corporate planning prepared according to the principles described above. In the case of loss-making entities, deferred tax assets are not recognised until turnaround is imminent or future profits are highly probable. When measuring loss allowances for deferred tax assets recognised for loss carryforwards, due account is taken of rules restricting loss utilisation (minimum taxation). Further details are provided in Note 8.

The post-employment pension expense from defined benefit plans is determined on the basis of actuarial calculations. Those calculations are based on assumptions and judgements regarding discount rates on the net obligation, mortality and future pension increases. Such estimates are subject to significant uncertainties due to the long-term nature of such plans. Details of those uncertainties, together with sensitivities, are presented in Note 14.

Provisions for warranties are accounted for on the basis of expected costs from customer orders. The estimates for the warranty obligations are based on experience in recent financial years and generally relate to a warranty term of between one and two years from the acceptance date. It is therefore expected that the majority of provisions for warranties will be settled within the next two years. *Further details are provided on page 168*.

KRONES has already cut jobs in 2019 as part of its efficiency programme. This programme continues in 2020. The restructuring provisions recognised for this purpose were determined on the basis of estimates and are therefore subject to uncertainty.

For the purpose of accounting in accordance with IFRS 15, judgements are made regarding whether revenue is realised over time. KRONES has come to the conclusion that revenue for highly customer-specific projects is to be recognised over time rather than at a point in time, as the resulting assets have no alternative use as a rule and KRONES has a legal right to payment, including a profit margin, for performance already completed. KRONES has determined that an input method is the most suitable for determining progress as there is a direct relationship between production cost being incurred and transfer of the product or service to the customer. The percentage of completion is the ratio of contract costs incurred up to the reporting date to the total estimated cost of the projects. Changes in estimates and differences between actual costs and estimated costs affect the profit on such projects.

Intangible assets

Acquired and internally generated intangible assets, excluding goodwill, are recognised in accordance with IAS 38 if it is sufficiently probable that the use of an asset will result in a future economic benefit and the cost of the asset can be reliably determined. The assets are recognised at cost and amortised systematically on a straight-line basis over their estimated useful lives. Amortisation of intangible assets is normally applied over a useful life of between three and five years and is presented in “Depreciation and amortisation of intangible assets and property, plant and equipment”. Intangible assets that are not yet available for use are tested annually for impairment.

Research and development expenditure

Development costs in the KRONES Group are capitalised at cost if all recognition criteria in IAS 38.57 are met. In accordance with IAS 38, research expenditure cannot be capitalised and is therefore immediately recognised as an expense in profit or loss. Borrowing costs are capitalised as cost at a capitalisation rate of 0.15%.

Goodwill

Goodwill is not amortised. Instead, it is tested annually for impairment. It is also tested for impairment if an event occurs or circumstances arise that suggest that the recoverable amount may be less than the carrying amount. Goodwill is recognised at cost less cumulative impairment losses.

Goodwill is tested for impairment at the level of the cash-generating unit or group of cash-generating units represented by a division (or corresponding unit).

The cash-generating unit or group of cash-generating units represents the lowest level at which the goodwill is monitored for internal management purposes.

For the purposes of impairment testing, goodwill acquired in a business combination is allocated to the cash-generating unit or group of cash-generating units that is expected to benefit from the synergies of the business combination. If the carrying amount of the cash-generating unit or group of cash-generating units to which the goodwill is allocated exceeds the recoverable amount, an impairment loss is recognised for the goodwill allocated to the cash-generating unit or group of cash-generating units. The recoverable amount is the fair value less costs of disposal or value in use, whichever is higher, of the cash-generating unit or group of cash-generating units. If either of these exceeds the carrying amount, it is not always necessary to determine both values. The values are normally measured on the basis of discounted cash flows. Even if the recoverable amount of the cash-generating unit or group of cash-generating units to which goodwill is allocated exceeds the carrying amount in subsequent periods, impairment losses on that goodwill are not reversed.

Property, plant and equipment

The KRONES Group's property, plant and equipment are accounted for at cost less systematic depreciation on a straight-line basis over their estimated useful lives. The cost of self-constructed assets comprises all directly attributable costs and an allocation of overheads.

No revaluation of property, plant and equipment has been undertaken in accordance with IAS 16.

Systematic depreciation is based on the following useful lives, which are applied uniformly throughout the group:

Useful life	Years
Buildings	14 – 50
Technical equipment and machinery	5 – 18
Furniture and fixtures and office equipment	3 – 15

The useful lives take into account the different components of assets with significant differences in cost.

Government grants are only recognised if there is reasonable assurance that the conditions attaching to them will be complied with and the grants will be received.

Government grants related to assets are deducted from the cost of the assets and reversed in future periods to profit or loss in depreciation and amortisation of intangible assets and property, plant and equipment.

Leases

A lease is a contract that conveys the right to use an asset for a period of time in exchange for consideration.

Until 31 December 2018, leases in which the KRONES Group, as the lessee, bore substantially all the risks and rewards incidental to ownership of the leased asset were accounted for on inception as finance leases in accordance with IAS 17. The leased asset was recognised as a non-current asset at fair value or, if lower, at the present value of the minimum lease payments. The leased asset was depreciated systematically on a straight-line basis over the shorter of the lease term and the useful life of the asset. Payment obligations for future lease instalments were recognised under other liabilities. In the case of operating leases, the leased assets were treated as assets belonging to the lessor as the lessor bore the risks and rewards. The lease expense was recognised in profit or loss.

From 1 January 2019, KRONES normally recognises all leases and related contractual rights and obligations in the statement of financial position. KRONES recognises a right-of-use asset and a corresponding lease liability at the time the leased item is available for use by the group.

Lease liabilities include the present value of the following lease payments:

- Fixed payments less any lease incentives payable by the lessor;
- Variable lease payments that depend on an index or a rate;
- Amounts expected to be payable under residual value guarantees;
- The exercise price of a purchase option, if the option is reasonably certain to be exercised;
- Payments of penalties for terminating the lease, if the lease term reflects the exercising of an option to terminate the lease.

The lease payments are discounted using the interest rate implicit in the lease, if that rate can be readily determined. If not, they are discounted using the incremental borrowing rate. The finance costs are recognised in profit or loss over the lease term. The carrying amount of lease liabilities is remeasured if there is a change in the lease or in the assessment of an option to purchase the underlying asset.

Right-of-use assets are measured at cost, which comprises:

- The amount of the initial measurement of the lease liability;
- Lease payments made at or before the commencement date, less any lease incentives received;
- Initial direct costs incurred;
- Dismantling obligations.

Subsequent measurement is at cost less any accumulated depreciation and any accumulated impairment losses. Right-of-use assets are depreciated on a straight-line basis over the shorter of the useful life and the lease term. Right-of-use assets are likewise tested for impairment.

With regard to the practical expedients provided for in the standard, KRONES makes use of the practical expedients for low-value assets and for short-term leases (less than 12 months). The payments for short-term leases and leases of low-value assets are recognised as an expense on a straight-line basis.

Furthermore, the new rules are not applied to leases of intangible assets. In the case of contracts that contain non-lease components as well as lease components, use is made of the option not to separate non-lease components from lease components. *Please also see the information on page 180.*

Financial instruments

In accordance with IFRS 9, KRONES classifies financial assets into three categories: financial instruments at amortised cost (AC), financial instruments at fair value through profit or loss (FVTPL) and financial instruments at fair value through other comprehensive income (FVOCI).

The classification of financial assets is made on the basis of KRONES' business model for managing the financial assets and their contractual cash flow characteristics.

In accordance with IFRS 9, KRONES classifies financial liabilities into three categories: financial instruments at amortised cost (AC), financial instruments at fair value through profit or loss (FVTPL) and financial instruments at fair value through other comprehensive income (FVOCI).

For the various classes of financial assets and liabilities, the carrying amounts are generally a reasonable approximation of fair value.

The fair value of financial assets and liabilities is determined on the basis of financial accounting models using inputs observable in the market at the reporting date (Level 2 within the meaning of IFRS 13.72). Level 2 assets and liabilities are primarily hedging and non-hedging derivatives.

The fair value of Level 1 financial assets and liabilities is based on unadjusted quoted prices in active markets for financial instruments.

For Level 3 inputs within the meaning of IFRS 13.72, the fair values are the same as the carrying amounts. Measurement is based on estimates from forecasts of future developments.

Transactions against cash settlement are accounted for at the settlement date. Derivative financial instruments are accounted for at the trade date.

Net gains and losses include impairments and measurement changes for derivative financial instruments and are set out in the explanatory notes on the various measurement categories.

Loss allowances are therefore measured on the basis of one of the following:

- 12-month expected credit losses: Expected credit losses that result from default events that are possible within twelve months after the reporting date.
- Lifetime expected credit losses: Expected credit losses that result from all possible default events over the expected life of a financial instrument.

Loss allowances are measured on the basis of lifetime expected credit losses if the credit risk on a financial asset at the reporting date has increased significantly since initial recognition; otherwise, loss allowances are measured on the basis of 12-month expected credit losses. An entity may assume that the credit risk on a financial asset has not increased significantly if the financial asset is determined to have low credit risk at the reporting date. However, loss allowances must always be measured on the basis of lifetime expected credit losses for trade receivables and contract assets without a significant financing component; KRONES also measures loss allowances on this basis for trade receivables and contract assets with a significant financing component.

The expected credit losses on trade receivables and on contract assets are estimated on the basis of external ratings and historical credit loss experience over the last 36 months. Within each group of financial instruments, credit risks are segmented on the basis of shared credit risk characteristics.

Trade receivables and contract assets have been grouped on the basis of shared credit risk characteristics for the purpose of measuring expected credit losses. The contract assets generally have the same risk characteristics as trade receivables.

Information on risk reporting in accordance with IFRS 7 is provided in the risk report in the group management report.

Derivative financial instruments and hedge accounting

The derivative financial instruments used in the KRONES Group are used to hedge against currency risks from operating activities. The election has been made to apply the hedge accounting requirements of IAS 39 instead of the requirements in IFRS 9.

The main categories of currency risk at KRONES comprise transaction risk arising from exchange rates and cash flows in foreign currencies. The main such currencies are the US dollar, the Canadian dollar, the Norwegian krone, the Japanese yen and the euro.

Within the hedging strategy, 100% of items denominated in foreign currencies are generally hedged. The instruments used for this purpose are mostly forward exchange contracts and, in isolated cases, swaps, including currency swaps.

The strategy objective is to minimise currency risk by using hedging instruments that are judged to be highly effective, thus hedging the exchange rate and providing planning certainty.

The derivative financial instruments are measured on initial recognition and in subsequent measurement at fair value as of the reporting date. Fair value is determined using Level 2 inputs within the meaning of IFRS 13.72. Gains and losses on measurement are recognised in profit or loss unless the criteria for hedge accounting are met.

The derivative financial instruments for which hedge accounting is applied comprise forward currency contracts and currency swaps whose changes in fair value are presented in profit or loss or as a component of equity. In the case of cash flow hedges of currency risks on hedged items, changes in fair value are initially recognised directly in equity and subsequently reclassified to profit or loss when the hedged item affects profit or loss.

These derivative financial instruments are measured on the basis of the forward rates provided by the commercial bank concerned. They are derecognised/reclassified when the corresponding hedged items are recognised in the statement of financial position.

Receivables and other assets

Receivables and other assets, with the exception of derivative financial instruments, are accounted for at amortised cost. Non-interest-bearing and low-interest receivables with maturities of more than one year are discounted.

The group makes use of the possibility as a rule of selling export receivables that are covered by credit insurance and/or documentary letters of credit. Receivables sold without recourse as of the reporting date were derecognised in full. In the case of receivables covered by credit insurance, the risk relating to the exporter's deductible is generally retained. The group assumes in such cases that substantially all the risks and rewards of the receivables transfer to the purchaser of the receivables if the deductible does not exceed 10% of the value of each individual receivable. The fair value of the expected recourse obligation under the retained deductibles was recognised as an expense.

The sale of receivables from the spare parts business as of the reporting date was carried out under an established master factoring agreement. Subject to the legal validity of the receivables, the factor bears the credit risk on the receivables it has purchased.

Inventories

Inventories are carried at the lower of cost and net realisable value. Cost includes costs that are directly related to the units of production and an allocation of fixed and variable production overheads.

The allocation of overheads is based on normal capacity.

Selling costs and general and administrative costs are not capitalised. Inventory risks arising from increased storage periods or reduced usability are accounted for with write-downs.

The FIFO and weighted-average cost methods are applied as simplified measurement methods for raw materials, consumables and supplies.

Income tax

The tax expense comprises current and deferred taxes. Current taxes and deferred taxes are recognised in profit or loss except to the extent that they relate to a business combination or to an item recognised directly in equity or in other comprehensive income.

Current taxes are the amounts of taxes expected to be paid or recovered in respect of the taxable profit or tax loss for the financial year on the basis of the tax rates that apply at the reporting date or will apply in the near future together with all adjustments recognised for current tax of prior periods.

Deferred tax assets and deferred tax liabilities are accounted for using the liability method and are recognised for all temporary differences between the tax base and the carrying amounts in accordance with IFRS and for consolidation adjustments recognised in profit or loss. Deferred tax assets are only recognised to the extent that it is probable that the related tax benefits can be realised.

Deferred taxes are measured on the basis of the income tax rates that apply in the various countries at the time of realisation. Changes in the tax rates are taken into account if it is sufficiently certain that they will occur. Where legally permissible, deferred tax assets and liabilities have been offset.

Tax liabilities are recognised in the event that amounts in tax returns will probably not be realised (uncertain tax items). The amount is the best estimate of the expected tax payment (the expected amount or most likely amount of the uncertain tax item). Tax receivables from uncertain tax items are recognised if it is probable that they can be realised. Only if there is a tax loss carryforward or unused tax credit is no tax liability or tax receivable recognised for the uncertain tax item; the deferred tax asset for the unused tax loss carryforwards and tax credits is then adjusted instead.

The IFRIC published a clarification on accounting for income taxes in 2019. In accordance with that clarification, the previous provisions for income taxes must be presented in future as income tax liabilities. As a result, the current and non-current provisions for income taxes (€9,000 thousand and

€4,434 thousand respectively) as of 31 December 2018 were reclassified as current and non-current tax liabilities respectively. The reclassification has no effect on financial performance or the financial position.

Provisions for pensions

Provisions for pensions are measured using the projected unit credit method in accordance with IAS 19. This method takes into account known vested benefits at the reporting date together with expected future increases in state pensions and salaries based on a prudent assessment of relevant variables. The provisions are calculated on the basis of actuarial appraisals that take into account biometric factors.

Actuarial gains and losses have a direct impact on the consolidated statement of financial position, resulting in an increase or decrease in provisions for pensions and similar obligations and a reduction or increase in other reserves in equity. The consolidated statement of profit and loss is not affected by actuarial gains and losses as they are required to be recognised in other comprehensive income. Net interest on the net defined benefit obligation is determined by multiplying the net defined benefit obligation by the discount rate used to measure the defined benefit obligation. Because the net defined benefit obligation is reduced by any plan assets, the same discount rate is used to calculate return on plan assets. Current and past service costs and net interest are recognised in profit or loss.

Partial retirement benefit obligations

According to the definition of post-employment benefits in IAS 19, top-up payments under partial retirement agreements come under other long-term employee benefits. Such top-up payments are therefore not recognised in full as liabilities at their net present value. Instead, they are accrued on a pro-rated basis across the relevant years of active service of the employees taking partial retirement.

Other provisions

Other provisions are recognised when the group has an obligation to a third party as a result of a past event, an outflow is probable, and the amount of the obligation can be reliably estimated. The provisions are measured at fully attributable costs or on the basis of the most probable settlement amount.

Restructuring provisions are recognised in connection with measures that materially change the scope of the business undertaken by a segment or business unit or the manner in which that business is conducted. Most such measures involve the termination of employment relationships. Restructuring provisions are recognised when implementation of a detailed formal plan has started or such a plan has been announced.

Provisions with a residual term of more than one year are recognised at the settlement amount discounted to the reporting date. The discount rate reflects the risks specific to the liability. The increase in the provision due to the passage of time is recognised as an interest expense.

Revenue

The basic criterion for revenue recognition under IFRS 15 is transfer of control. A distinction is made between transfer of control at a point in time and transfer of control over time:

KRONES provides machinery and systems for bottling and packaging and for beverage production. KRONES recognises revenue for highly customer-specific projects over time rather than at a point in time, as the resulting assets have no alternative use as a rule and KRONES has a legal right to payment, including a profit margin, for performance already completed. Progress is measured using an input method. The percentage of completion is the ratio of contract costs incurred up to the reporting date to the total estimated cost of the project.

A further important part of KRONES' business model consists of services. The company maintains service centres and offices around the world. KRONES provides a comprehensive range of products and services for customers under the heading of lifecycle service (LCS). KRONES recognises revenue from sales of spare parts at a point in time, on delivery of the goods (transfer of control). Revenue for services that come under LCS is mostly recognised over time as the customer simultaneously receives and consumes the benefits provided by the group's performance as the group performs. Accordingly, revenue is mostly recognised over time using an input method on the basis of the costs incurred. Revenue is only recognised on a straight-line basis in the case of longer-term maintenance services.

A provision is recognised in accordance with IAS 37 for anticipated losses relating to customer orders.

Costs to obtain contracts where the amortisation period of the costs would be one year or less are immediately recognised as expense.

KRONES receives payments from customers on the basis of a payment plan that is part of the contracts. The payment terms vary among business units and countries. Contract assets relate to our conditional right to consideration for contractual performance obligations satisfied to date. Trade receivables are recognised when the right to receive the consideration becomes unconditional.

Contract liabilities relate to payments received in advance, meaning before contractual performance obligations have been satisfied. Contract liabilities are recognised as revenue when we satisfy the contractual performance obligations. If performance exceeds advance payments, the resulting positive balance is presented in contract assets.

Financing components are not included in the amount of revenue to be recognised if it is expected at inception of the contract that the period between the transfer of the promised good or promised service and payment for that good or service will be one year or less.

Revenue is presented net of reductions.

Segment reporting

KRONES reports on two operating segments, which are the strategic business units. The two segments are organised by product divisions and services and managed separately due to the different technologies they cover. The Executive Board, as the chief operating decision maker, manages the company as a whole on the basis of monthly reports from the segments. Segment 1 comprises machines and lines for product filling and decoration.

Segment 2 comprises machines and lines for beverage production and process technology. The accounting policies used are the same as those described under "General disclosures" above. Segment performance is measured on the basis of internal reporting to the Executive Board, primarily segment revenue and segment EBT.

The table below shows revenue generated through business with third parties in each country (based on the location of customer headquarters).

€ thousand	2019	2018
Germany	468,354	362,344
North America	683,459	533,063
Rest of the world	2,807,062	2,958,573
	3,958,875	**3,853,980**

The table below shows non-current assets in each country:

€ thousand	2019	2018
Germany	747,465	687,477
North America	54,618	63,141
Rest of the world	278,852	189,260
	1,080,935	**939,878**

Notes to the **consolidated statement of financial position**

1 Intangible assets

The carrying amount of intangible assets changed as follows:

€ thousand	Industrial property rights and similar rights and assets as well as licenses	Goodwill	Capitalised development expenditure	Advance payments made	Total
31 December 2017					
Cost	181,789	62,736	377,595	5	622,125
Accumulated depreciation	123,484	0	235,078	0	358,563
Net carrying amount	**58,305**	**62,736**	**142,517**	**5**	**263,562**
Changes in 2018					
Cost					
Consolidated additions	5,253	39,782	0	0	45,035
Additions	24,214	0	38,506	158	62,878
Disposals	5,485	0	0	0	5,485
Transfers	53	0	0	–1	52
Exchange differences	282	742	0	0	1,024
Amortisation					
Additions	21,408	0	21,083	0	42,491
Disposals	5,450	0	0	0	5,450
Transfers	88	0	0	0	88
Exchange differences	1,755	0	0	0	1,755
Net carrying amount at 31 December 2018	**64,821**	**103,260**	**159,940**	**162**	**328,183**
31 December 2018					
Cost	208,411	103,260	416,100	162	727,933
Accumulated depreciation	143,590	0	256,160	0	399,750
Net carrying amount	**64,821**	**103,260**	**159,940**	**162**	**328,183**

Table continued on next page

€ thousand	Industrial property rights and similar rights and assets as well as licenses	Goodwill	Capitalised development expenditure	Advance payments made	Total
Changes in 2019					
Cost					
Consolidated additions	6,124	37,289	0	0	43,413
Additions	25,376	0	32,516	36	57,928
Disposals	7,489	0	155	0	7,644
Transfers	165	0	0	−170	−5
Exchange differences	218	514	0	0	732
Amortisation					
Additions	25,837	17,545	41,155	0	84,537
Disposals	7,208	0	25	0	7,233
Transfers	−32	0	0	0	−32
Exchange differences	208	−25	0	0	183
Net carrying amount at 31 December 2019	**70,410**	**123,543**	**151,171**	**28**	**345,152**
31 December 2019					
Cost	232,805	141,063	448,461	28	822,357
Accumulated depreciation	162,395	17,520	297,290	0	477,205
Net carrying amount	**70,410**	**123,543**	**151,171**	**28**	**345,152**

The additions to industrial property rights and licenses mainly relate to licenses for IT software. Customer bases amounting to €8,716 thousand (previous year: €5,652 thousand) are included in the carrying amount as of the reporting date.

All goodwill underwent a regular impairment test in accordance with IAS 36, as in the previous year. Impairment testing is performed on the basis of value in use at the level of the smallest cash-generating unit (CGU) or group of cash-generating units. The cash flow projections underlying impairment tests are based on the approved financial forecasts within the forecast period. These forecasts are based in part on external sources of information. They also take into account price agreements based on past experience and expected efficiency gains as well as assumptions about revenue growth based on strategy.

The table below provides an overview of the tested goodwill and the assumptions used for the respective impairment tests, each of which was performed at the level of the smallest cash-generating unit (CGU):

CGU		Carrying amount of goodwill in € thousand	Forecast period in years	Annual revenue growth at end of forecast period	Discount rate before taxes
IPS	2019	34,408	3	1.0 %	6.2 %
SPRINKMAN	2019	3,107	3	2.0 %	10.9 %
	2018	7,411	5	2.0 %	10.4 %
MHT	2019	20,180	3	1.0 %	8.2 %
	2018	20,180	5	1.0 %	13.4 %
S.P.S	2019	4,307	3	1.0 %	9.0 %
	2018	9,298	6	1.0 %	10.5 %
JAVLYN	2019	4,589	3	1.5 %	12.9 %
	2018	4,498	5	1.5 %	10.4 %
TRANS-MARKET	2019	7,219	3	2.5 %	10.9 %
	2018	11,443	5	2.9 %	9.8 %
SYSTEM LOGISTICS	2019	30,906	3	1.0 %	8.3 %
	2018	30,906	3	1.0 %	9.4 %
HST	2019	4,258	3	1.0 %	8.3 %
	2018	4,258	3	1.0 %	9.2 %
TRIACOS	2019	4,631	3	1.0 %	8.3 %
	2018	4,631	3	1.0 %	8.8 %
Other [1]	2019	9,938	3 – 4	1.0 % – 2.0 %	7.2 % – 13.4 %
	2018	10,635	2 – 5	1.0 % – 3.0 %	7.9 % – 13.0 %

[1] Goodwill with a carrying amount of less than €4 million in each case

The pre-tax discount rates are based on risk-free interest rates, which are determined on the basis of long-term government bond yields. This discount rate is adjusted for a risk premium that reflects the general risk associated with equity investments and the specific risk of the CGU. Revenue growth at the end of the forecast period is the long-term average growth rate of the respective industrial sectors and countries in which the CGUs do business.

The impairment test resulted in the recognition of goodwill impairments in the amount of €17,545 thousand (previous year: €0 thousand). These mainly relate to reduced earnings prospects and are included in amortisation of intangible assets.

For the remaining CGUs that include goodwill, KRONES AG is of the opinion that no reasonably foreseeable change to any of the material basic assumptions used to determine the value in use of cash-generating units to which goodwill has been allocated could result in the carrying amount being higher than its recoverable amount.

The capitalised development expenditure relates to new machinery projects of KRONES AG. Development expenditure capitalised in the reporting period amounts to €32,516 thousand (previous year: €38,506 thousand).

As in the previous year, this includes borrowing costs in a non-material amount. Including capitalised development expenditure, a total of €194,502 thousand was spent on research and development in 2019 (previous year: €179,033 thousand). An impairment loss on capitalised development expenditure was recognised in amortisation in the reporting year in the amount of €20,587 thousand (previous year: €1,644 thousand). As in the previous year, the charge was incurred in the Machines and Lines for Product Filling and Decoration segment. The figure in the reporting period relates to direct printing technologies that are not being pursued further.

In the reporting period, business combinations resulted in €43,413 thousand in additions to net carrying amounts for intangible assets (previous year: €45,035 thousand), of which €37,289 thousand is goodwill (previous year: €39,782 thousand).

2 Property, plant and equipment

In 2019, as in the previous year, the depreciation figure for property, plant and equipment did not include any impairments in accordance with IAS 36. Additions to land and buildings and to construction in progress primarily related to the establishment of the production location in Hungary, expansion at the Neutraubling, Wackersdorf and Nittenau locations in Germany and investment in the USA. The €66,417 thousand in capital expenditure on technical equipment and machinery and on other equipment, furniture and fixtures and office equipment primarily relates to capacity expansion and modernisation at existing production locations.

In 2019, the carrying amounts for property, plant and equipment included government grants of €10,802 thousand (previous year: €2.658 thousand). Government grants in the amount of €145 thousand (previous year: €10 thousand) were reversed to profit or loss in 2019. As in the previous year, the depreciation figure in 2019 does not include any impairment reversals.

The reported property, plant and equipment is not subject to any restrictions of title or disposal.

In the reporting period, business combinations resulted in €2,242 thousand in additions to net carrying amounts for property, plant and equipment (previous year: €9.498 thousand).

Property, plant and equipment, including right-of-use assets, changed as follows:

€ thousand	Land and buildings	Technical equipment and machinery	Other equipment, furniture and fixtures and office equipment	Construction in progress	Advance payments made	Total
31 December 2017						
Cost	499,957	329,377	239,033	33,036	1,351	1,102,754
Accumulated depreciation	206,835	226,282	168,020	0	0	601,138
Net carrying amount	**293,122**	**103,094**	**71,012**	**33,036**	**1,351**	**501,616**
Changes in 2018						
Cost						
Consolidated additions	6,674	1,648	1,049	127	0	9,498
Additions	16,765	11,258	33,827	48,129	12,574	122,552
Disposals	2,432	6,441	15,698	0	167	24,738
Transfers	26,450	1,945	2,489	−29,840	−1,096	−52
Exchange differences	1,180	692	−619	19	−2	1,271
Depreciation						
Additions	13,882	19,975	26,388	0	0	60,245
Disposals	1,191	6,081	15,076	0	0	22,348
Transfers	22	−120	10	0	0	−88
Exchange differences	707	745	67	0	0	1,518
Net carrying amount at 31 Dec 2018	**328,339**	**97,677**	**80,672**	**51,472**	**12,660**	**570,820**
31 December 2018						
Cost	548,595	339,635	263,139	51,472	12,660	1,215,501
Accumulated depreciation	220,256	241,958	182,467	0	0	644,681
Net carrying amount	**328,339**	**97,677**	**80,672**	**51,472**	**12,660**	**570,820**

Table continued on next page

€ thousand	Land and buildings	Technical equipment and machinery	Other equipment, furniture and fixtures and office equipment	Construction in progress	Advance payments made	Total
Changes in 2019						
Cost						
Restatement due to IFRS 16*	63,814	573	24,094	0	0	88,481
At 1 January 2019, restated	**612,409**	**340,208**	**287,233**	**51,472**	**12,660**	**1,303,982**
Consolidated additions	1,264	0	978	0	0	2,242
Additions	56,314	28,363	38,054	15,542	223	138,496
Disposals	1,629	9,243	26,270	6,694	0	43,836
Transfers	37,120	4,624	3,012	−43,713	−1,030	13
Exchange differences	861	579	888	−320	−152	1,856
Depreciation						
Additions	35,644	21,150	41,632	0	0	98,426
Disposals	1,306	8,512	25,240	0	0	35,058
Transfers	0	−305	344	0	0	39
Exchange differences	357	333	790	0	0	1,480
Net carrying amount at 31 Dec 2019	**451,387**	**109,907**	**103,902**	**16,287**	**11,701**	**693,185**
31 December 2019						
Cost	706,339	364,531	303,895	16,287	11,701	1,402,753
Accumulated depreciation	254,951	254,624	199,993	0	0	709,568
Net carrying amount	**451,387**	**109,907**	**103,902**	**16,287**	**11,701**	**693,185**

* See accounting standards applied for the first time, page 180.

The table below shows the recognised right-of-use assets for leased assets accounted for in property, plant and equipment:

€ thousand	Land and buildings	Technical equipment and machinery	Other equipment, furniture and fixtures and office equipment	Total
31 Dec 2019				
Net carrying amount	61,409	2,900	23,324	87,633
Additions	17,520	3,097	12,106	32,723
Depreciation	19,919	772	12,923	33,614

Information on the corresponding lease liabilities is provided on page 169.

Interest expenses include €3,297 thousand in interest expense on leases. Other operating expenses include €3,698 thousand in expenses from short-term leases, €689 thousand in expenses from leases of low-value assets and €716 thousand in expenses for variable lease payments. Total cash outflows for leases amount to €37,173 thousand.

In the previous year, property, plant and equipment included leased assets in the amount of to €68 thousand, beneficial ownership of which was attributed to the group company concerned in accordance with IAS 17 (finance leases).

3 Non-current financial assets

The non-current financial assets consist primarily of lendings to and investments in non-consolidated companies.

4 Investments accounted for using the equity method

One associated company was accounted for using the equity method as of the reporting date (previous year: two companies).

The table below lists the associates accounted for using the equity method:

Name	Place of business	Ownership interest
		%
Associates		
TECHNOLOGISCHES INSTITUT FÜR ANGEWANDTE KÜNSTLICHE INTELLIGENZ GMBH	Weiden, Germany	44

The table below summarises the aggregated earnings data an aggregated carrying amounts of associates accounted for using the equity method (excluding the investment in INTEGRATED PACKAGING SYSTEMS (IPS) FZCO, Dubai):

€ thousand	2019	2018
Profit or loss for the period	–809	–165
Other comprehensive income	0	0
Total comprehensive income	–809	–165
Share of profit or loss	–356	–73
Carrying amount at 31 Dec	3,369	3,529

On 1 April 2019, KRONES acquired the remaining 60% ownership interest in INTEGRATED PACKAGING SYSTEMS (IPS) FZCO, Dubai. From that date onwards, the company has been fully consolidated. Until 31 March 2019, the investment was included in the consolidated financial statements as an associate accounted for using the equity method.

In financial year 2019, the share in profit or loss of INTEGRATED PACKAGING SYSTEMS (IPS) FZCO, Dubai, was –€330 thousand (previous year: €894 thousand). The carrying amount as of the reporting date was €0 thousand (previous year: €25,132 thousand).

5 Inventories

The inventories of the KRONES Group are composed as follows:

€ thousand	31 Dec 2019	31 Dec 2018
Raw materials, consumables and supplies	242,033	208,019
Work in progress	64,452	46,559
Finished goods	44,164	35,946
Goods purchased for sale	26,572	25,606
Other	5,302	4,604
Total	**382,523**	**320,734**

Inventories are recognised at the lower of cost and fair value less selling expenses.

Write-downs of €1,585 thousand on inventories were recognised as expense in 2019 (previous year: €7,267 thousand) and are substantially based on customary net realisable values and obsolescence allowances. The amount of reversals of write-downs recognised in profit or loss due to improved market conditions was not material.

6 Receivables and other assets

€ thousand	31 Dec 2019	31 Dec 2018
Trade receivables	961,789	987,970
Contract assets	571,261	647,089
Other assets	165,419	166,128

The group measures expected credit losses using the simplified approach under IFRS 9; accordingly, all trade receivables and contract assets are accounted for with lifetime expected credit losses.

The loss allowance for expected credit losses on trade receivables and contract assets changed as follows:

Trade receivables and contract assets

€ thousand	2019	2018
At 1 Jan	35,572	27,444
Change due to first-time application as of 1 Jan 2018	0	13,652
Change due to currency effects	131	–198
Additions	5,671	104
Reversals	–805	–5,430
At 31 Dec	**40,569**	**35,572**

The loss allowances include €5,964 thousand (previous year: €5,195 thousand) in allowances of contract assets. Other assets mainly comprise advance payments made (€19,006 thousand; previous year: €19,959 thousand), current tax assets (€78,334 thousand; previous year: €69,076 thousand), prepaid expenses (€13,887 thousand; previous year: €9,519 thousand) and other financial assets (€41,706 thousand; previous year: €29,940 thousand).

The derivative financial instruments measured at fair value that were entered into for future payment receipts and meet the conditions for hedge accounting or that were entered into as stand-alone hedge transactions totalled €903 thousand at the reporting date (previous year: €860 thousand).

7 Cash and cash equivalents

Apart from cash on hand totalling €2,030 thousand (previous year: €150 thousand), the cash and cash equivalents of €110,382 thousand (previous year: €218,802 thousand) consist primarily of demand deposits.

Changes in cash and cash equivalents in accordance with IAS 7 Statement of Cash Flows are presented in the statement of cash flows on page 134.

8 Income tax

Income tax receivables and liabilities relate exclusively to income tax in accordance with IAS 12.

The income tax breaks down as follows:

€ thousand	31 Dec 2019	31 Dec 2018
Deferred tax expense/income (–)	–17,614	693
Current tax	50,115	52,957
Total	**32,501**	**53,650**

Deferred taxes are measured on the basis of the tax rates that, based on the current legal situation, apply or are expected to apply in the various countries at the time of realisation. In Germany, the tax rates that apply are a corporate income tax rate of 15.0% plus a solidarity surcharge of 5.5% and a local trade tax multiplier (Gewerbesteuerhebesatz) for KRONES AG averaging 336%. The total income tax rate for the companies in Germany is consequently 27.6%. Tax rates abroad range between 9% and 35%.

The deferred tax assets and liabilities at 31 December 2019 break down by items on the statement of financial position as follows:

€ thousand	Deferred tax assets		Deferred tax liabilities	
	31 Dec 2019	31 Dec 2018	31 Dec 2019	31 Dec 2018
Intangible assets	1,102	54	45,718	45,476
Property, plant and equipment	0	144	12,564	10,005
Non-current financial assets	187	14,486	175	39
Other non-current assets	1,616	1,319	118	67
Inventories	14,450	13,071	1,033	1,657
Other current assets	3,228	2,798	32,967	27,303
Tax loss carryforwards	29,155	11,116	0	0
Provisions, non-current	12,479	9,964	264	10,292
Other non-current liabilities	2,134	2,057	62	366
Provisions, current	13,483	19,134	6,121	92
Other current liabilities	15,502	1,540	374	167
Deferred tax items recognised in other comprehensive income	44,003	31,191	0	2,304
Subtotal	**137,339**	**106,874**	**99,396**	**97,768**
Offsetting (–)	**–95,722**	**–74,424**	**–95,722**	**–74,424**
Total	**41,617**	**32,450**	**3,674**	**23,344**

The deferred tax assets and liabilities recognised in other comprehensive income amounted to €44,003 thousand at the reporting date (previous year: €28,887 thousand). This figure includes €43,400 thousand (previous year: €32,821 thousand) for actuarial gains and losses recognised in other comprehensive income in accordance with IAS 19. An amount of €603 thousand (previous year: €380 thousand) related to hedging activities.

Deferred taxes on tax loss carryforwards in the amount of €46,992 thousand (previous year: €14,056 thousand) and deferred taxes on deductible temporary differences in the amount of €14 thousand (previous year: €46 thousand) were not recognised because it is not sufficiently certain that the tax assets will be realised in the foreseeable future. These loss carryforwards can essentially be carried forward indefinitely.

Entities that made losses in the year under review and whose deferred tax assets are not covered by deferred tax liabilities have recognised deferred tax assets in the amount of €7,217 thousand. There is convincing evidence that these tax assets will be realised on the basis of management assumptions and judgements about the development of the business deriving from past experience and taking into account one-off effects in the financial year under review.

The temporary differences relating to equity interests in subsidiaries (outside basis differences) came to €300,876 thousand at the reporting date (previous year: €293,875 thousand) and are excepted from recognition of deferred tax liabilities.

The tax expense of €32,501 thousand reported in 2019 is €20,980 thousand higher than the expected tax expense that would theoretically result from application of the domestic tax rate of 27.6% at the group level. The difference can be attributed to the following:

€ thousand	2019	2018
Earnings before taxes	41,743	204,250
Tax rate for the parent company KRONES AG	27.60%	27.30%
Expected (theoretical) tax expense	11,521	55,760
Adjustment due to difference between local tax rate and tax rate of KRONES AG	−656	−1,428
Reductions in tax due to tax-exempt income	−15,573	−14,724
Current tax losses for which no deferred taxes recognised	7,581	28
Increases in tax expense due to non-deductible expenses	29,691	23,134
Tax effect of as-yet unrealised deferred taxes on loss carryforwards	−247	−1,070
Tax income (–) / tax expense (+) for previous years	−2,814	−1,491
Tax effect of as-yet unrealised deductible temporary differences	662	−4,672
Other	2,336	−1,887
Taxes on income	**32,501**	**53,650**

9 Equity

KRONES AG's share capital amounted to €40,000,000.00 at 31 December 2019, as in the previous year. It is divided into 31,593,072 ordinary bearer shares, each with a theoretical par value of €1.27 per share. 31,593,072 shares were in circulation at the reporting date (previous year: 31,593,072). At 31 December 2019, as in the previous year, the company held no treasury shares.

The company is authorised in accordance with Section 71 (1) No. 8 of the German Stock Corporation Act (AktG) to buy treasury shares totalling up to 10% of the current share capital in compliance with the provisions of the law and of the authorising resolution.

The authorisation can be exercised by the company, by its consolidated companies or by a third party acting on its or their behalf, either in whole or in part, once or multiple times, in pursuit of one or multiple purposes.

The authorisation became effective upon resolution by the annual general meeting on 13 June 2018 and applies until midnight on 12 June 2023.

By resolution of the annual general meeting on 15 June 2016, the Executive Board is authorised to increase the company's share capital, with the approval of the Supervisory Board, by up to €10 million (authorised capital) through the issuance on one or more occasions of new ordinary bearer shares against cash contributions up to and including 15 June 2021. Shareholders must be granted subscription rights to these shares. The Executive Board is authorised to exclude the subscription rights of shareholders, with the approval of the Supervisory Board, for any fractional amounts that may arise. Moreover, the Executive Board is authorised to determine the further details of the capital increase and its implementation, in both cases with the approval of the Supervisory Board. The Supervisory Board is authorised to amend the articles of association in accordance with any utilisation of the authorised capital and upon expiration of the term of the authorisation.

The changes in equity that are recognised in other comprehensive income (excluding dividends) totalled –€19.285 thousand in the reporting period (previous year: –€263 thousand) and consist of changes in currency differences and cash flow hedges as well as the recognition of actuarial gains and losses on pensions under other reserves. In addition, the allocation of profit or loss to non-controlling interests resulted in a change in equity of –€249 thousand (previous year: –€483 thousand). The sum of changes in equity that are recognised in other comprehensive income and those that are recognised in profit or loss was –€10,043 thousand (previous year: €150,337 thousand).

A dividend of €1.70 per share was approved for the 2018 financial year and paid out by KRONES AG in 2019 (previous year: €1.70 per share). The total dividend payout came to €53,708 thousand (previous year: €53,708 thousand).

Disclosures about capital management

A strong equity position is an important prerequisite for ensuring KRONES' long-term survival. To achieve this, KRONES regularly monitors and manages its capital on the basis of the equity ratio. In order to share the company's success with shareholders, KRONES' policy is to pay out 25% to 30% of consolidated profit in the form of dividends.

10 Capital reserves

The capital reserves total €141,724 thousand (previous year: €141,724 thousand). The capital reserves include amounts transferred under Section 272 (2) No. 4 of the German Commercial Code (HGB) and amounts transferred under Section 272 (2) No. 1 HGB totalling €37,848 thousand.

11 Profit reserves

The legal reserve remains unchanged from the previous year at €51 thousand.

The other profit reserves include deductions for negative goodwill from acquisition accounting for subsidiaries consolidated before 1 January 2004 and adjustments made directly in equity at 1 January 2004 on the first-time application of IFRS. They also include the adjustments made directly in equity on the first-time application of IFRS 9 and IFRS 15 as of 1 January 2018.

Currency differences recognised under profit reserves contain the currency translations of financial statements of foreign subsidiaries that are recognised in other comprehensive income. Changes in profit reserves are shown in the consolidated statement of changes in equity.

12 Other reserves

Other reserves changed as follows in financial year 2019:

€ thousand	Reserve for post-employment benefits	Reserve for cash flow hedges	Other	Total
At 31 Dec 2017	**–91,505**	**1,133**	**–804**	**–91,176**
Measurement change	5,948	–3,070	0	2,878
Tax on items taken directly to or transferred from equity	–1,552	690	0	–862
At 31 Dec 2018	**–87,109**	**–1,247**	**–804**	**–89,160**
Measurement change	–37,149	–805	0	–37,954
Tax on items taken directly to or transferred from equity	10,581	220	0	10,801
At 31 Dec 2019	**–113,677**	**–1,832**	**–804**	**–116,313**

The measurement changes for cash flow hedges include additions of €1,832 thousand and amounts reclassified to profit or loss totalling –€1,247 thousand after taxes.

13 Non-controlling interests

In the 2019 financial year, non-controlling interests totalled –€629 thousand (previous year: –€72 thousand).

A detailed overview of the composition of and changes to the individual equity components for the KRONES Group in 2019 and the previous year is presented in the statement of changes in equity on page 135.

14 Provisions for pensions

Provisions for pensions are recognised for obligations relating to vested benefits and current benefit payments for eligible active and former employees of KRONES Group companies and their surviving dependants. Various forms of retirement provision exist depending on the legal, economic and tax circumstances of the relevant country and are generally based on employees' remuneration and years of service.

Company pension plans are generally either defined contribution plans or defined benefit plans.

In defined contribution plans, the company does not assume any obligations beyond establishing contribution payments to special-purpose funds. Contributions are recognised as personnel expense in the year in which they are paid.

In defined benefit plans, the company undertakes an obligation to render the benefits promised to active and former employees, where a distinction is made between systems financed by provisions and systems financed through pension funds. The amount of the pension obligations (the defined benefit obligation) was computed in accordance with actuarial methods. Apart from the assumptions regarding life expectancy based on the 2018G Heubeck actuarial tables, the following average values for the group were also taken into account in the actuarial calculations:

The basis for calculating provisions for pensions in Germany is the company's pension scheme from 31 December 1982, which is closed to new entrants. The scheme entitles all covered employees to post-employment, permanent disability and widow(er)'s pensions. The age limits are 63 for men and 60 for women. The post-employment pension amounts to 1% (0.5% beginning 1 January 1983) of the eligible earned income for each eligible year of employment, not to exceed 25%. It should also be noted that a safeguard for workers' benefits was put into place at the time the new scheme was established on 31 December 2014.

The basis for measurement of the permanent disability and widow(er)'s pensions (50% of post-employment pension) is the post-employment pension that can be earned by the time the employee reaches the age limit, although for the permanent disability benefit only that portion is granted which corresponds to the years of service actually reached. The measurement date for eligible years of service is 31 December 1982. A fixed table applies to new entries after this date. The individual provisions are based on individual contractual agreements.

There are further non-material pension plans in Germany and other countries. These therefore do not need to be described in detail.

Both the defined benefit obligations and plan assets are subject to fluctuations over time. This can have a positive or negative effect on funding status. Fluctuations in the defined benefit obligation within the KRONES Group result primarily from changes in financial assumptions such as discount rates and increases in the cost of living as well as changes in demographic assumptions such as changed life expectancy.

%	Average for the group	
	2019	2018
Discount rate	1.2	2.0
Projected increases in wages and salaries	0.0	0.0
Projected increases in state pensions	2.0	2.0

The rates recommended for measuring pension liabilities at the end of the business year as published by Heubeck AG, Mercer Deutschland GmbH, TowersWatson and AON Hewitt are used to determine the relevant discount rates. These values, which in turn are determined on the basis of market yields on senior fixed-coupon corporate bonds, are used to obtain an interest rate that reflects the anticipated benefit payments.

The following amounts are expected to be contributed to the defined benefit obligation in the coming years.

€ thousand	2019
Within the next 12 months	6,454
Between 2 and 5 years	27,907
Between 5 and 10 years	41,254

The average weighted residual term of post-employment benefit obligations is 20 years (previous year: 18 years).

The projected increases in wages and salaries comprise expected future pay increases, which are estimated each year on the basis of inflation and employees' years of service with the company. Since the pension commitments at our companies in Germany are independent of future pay increases, the projected increase in wages and salaries was not taken into account when determining the corresponding pension provisions.

Increases or decreases in either the net present value of defined benefit obligations or the fair value of fund assets can result in actuarial gains or losses due to factors such as changes in parameters, changes in estimates relating to the risks associated with the pension commitments and differences between the actual and expected return on plan assets. The net value of the pension provisions breaks down as follows:

€ thousand	31 Dec 2019	31 Dec 2018	31 Dec 2017
Present value of benefit commitments financed by provisions	234,644	199,099	199,129
Present value of benefit commitments financed through pension funds	53,134	49,534	50,722
Present value of benefit commitments (gross)	287,778	248,633	249,851
Fair value of plan assets	–27,584	–28,083	–29,622
Carrying amount at 31 December (net defined benefit obligation)	**260,194**	**220,550**	**220,229**

The pension provisions, which amounted to €248,672 thousand at the reporting date (previous year: €212,086 thousand), are primarily attributable to KRONES AG. The actuarial gains or losses resulting from changes in financial assumptions totalled €37,802 thousand (previous year: €9.140 thousand). Experience adjustments total –€653 thousand (previous year: –€17 thousand); adjustments due to changes in demographic assumptions total €0 thousand (previous year: –€3,311 thousand).

The costs arising from pension obligations amounted to €5,889 thousand (previous year: €5,272 thousand) and break down as follows:

€ thousand	31 Dec 2019	31 Dec 2018	31 Dec 2017
Current service cost	1,213	727	618
Interest expense	5,010	4,562	4,492
Expected return on plan assets	–553	–508	–545
Past service cost and plan curtailments	218	491	156
Costs arising from pension obligations	**5,889**	**5,272**	**4,721**

The present value of defined benefit obligations, which amounted to €287,778 thousand (previous year: €248,633 thousand), the fair value of the plan assets, which amounted to €27,584 thousand (previous year: €28,083 thousand), and the net amount of the two items reconcile as follows:

€ thousand	Present value of benefit commitments	Fair value of plan assets	Total
At 1 January 2018	**249,851**	**–29,622**	**220,229**
Consolidated additions	3,742	0	3,742
Current service cost	727	0	727
Interest expense (+)/interest income (–)	4,562	–508	4,054
Actuarial gains/losses	–6,448	500	–5,948
Employer contributions	0	–1,222	–1,222
Benefits paid	–4,765	2,752	–2,013
Recognised past service cost	491	0	491
Exchange differences	473	17	490
At 31 December 2018	**248,633**	**–28,083**	**220,550**

€ thousand	Present value of benefit commitments	Fair value of plan assets	Total
At 1 January 2019	**248,633**	**–28,083**	**220,550**
Consolidated additions	0	0	0
Current service cost	1,213	0	1,213
Interest expense (+)/interest income (–)	5,010	–553	4,457
Actuarial gains/losses	38,819	–1,670	37,149
Employer contributions	0	–477	–477
Benefits paid	–6,518	3,205	–3,313
Recognised past service cost	929	0	0
Exchange differences	–308	–7	–315
At 31 December 2019	**287,778**	**–27,584**	**260,194**

The actuarial gains or losses mainly relate to changes in financial assumptions. KRONES Unterstützungs-Fonds e.V., an occupational pension scheme, is responsible for administrating and managing a portion of the plan assets. KRONES AG is the scheme's sponsoring company. Allianz Global Investor is responsible for administrating and managing another portion of the plan assets as pension liability insurer.

The fair value of plan assets was €27.6 million as of 31 December 2019 (previous year: €28.1 million). Of that, €23.5 million consist of pension liability insurance policies (previous year: €23.6 million). The rest of the plan assets are attributable to KRONES Unterstützungs-Fonds e.V., headquartered in Neutraubling. The fund assets are invested in a special-purpose fund that is administered and actively managed by Allianz GI (AGI). The eligible instruments are specified in the investment guidelines.

A defensive investment strategy is used. At 31 December 2019, the AGI fund consisted of 39.6% government bonds, 6.7% Pfandbriefe (covered bonds governed by the German Pfandbrief Act), and 17.0% investment-grade corporate bonds. The amount held as cash in hand came to 0.6%. The remainder was primarily equity funds. Interest rate risk is actively managed using interest rate futures. The duration of the investment volume is 2.31 years. Management of currency risk: No direct currency investments are made. The overall rating of the fund assets is A+. KRONES AG's plan assets are secured as follows: 84% through the pension liability insurance policies from Allianz and 16% through KRONES Unterstützungs-Fonds e.V.

The expected contributions to plan assets in 2020 are €456 thousand. The expected pension benefit payments to be paid out of plan assets in 2020 amount to €2,849 thousand.

In 2019, a total of €56,742 thousand (previous year: €55,404 thousand) was spent on the employer contribution to defined contribution plans (contributions to pension insurance).

The sensitivity of the total pension commitments to changes in the weighted assumptions is as follows:

		Effect on the obligation	
	Change in assumption	Assumption increases	Assumption decreases
Discount rate	0.50%	9.1% decrease	10.5% increase
Change in state pensions	0.50%	7.5% decrease	6.7% increase
Life expectancy	1 year	4.0% increase	3.5% decrease

The above sensitivity analysis is based on a change in one assumption, with all other factors held constant. It is unlikely that this would be the case in reality and changes in several assumptions may be correlated. The same method was used to calculate the sensitivity of the defined benefit obligation to actuarial assumptions as was used to calculate the provisions for pensions in the statement of financial position.

15 Other provisions

€ thousand	1 Jan 2019	Consolidated additions	Utilisation	Reversal	Unwinding of discount/ change in discount rate	Additions	Exchange differences	31 Dec 2019	Due within 1 year
Personnel obligations	48,453	5,020	9,991	993	964	39,023	−21	82,455	30,371
Provisions for anticipated losses	31,648	0	17,559	8,252	0	13,011	47	18,895	18,663
Provisions for warranties	55,648	0	5,798	3,510	60	12,124	56	58,580	44,913
Other remaining provisions	35,139	310	10,297	8,508	46	39,678	−58	56,310	47,101
Total	**170,888**	**5,330**	**43,645**	**21,263**	**1,070**	**103,836**	**24**	**216,240**	**141,048**

The provisions for personnel obligations primarily comprise, alongside provisions for severance payments, provisions for non-current obligations relating to partial retirement. The provisions for severance payments were recognised in the amount of €26,528 thousand in connection with restructuring and relate to a planned reduction in the workforce by 300 employees in Germany. The personnel obligations include €964 thousand for the effects of the time value of money (previous year: €309 thousand).

Provisions for anticipated losses relate to anticipate losses arising from customer contracts. As soon as an anticipated loss is identified, a provision is immediately recognised for it at the expected amount.

The provisions for warranties relate to project business and represent the expected costs from customer orders. The estimates for liabilities relating to project business are based on experience in recent years and mostly have a contractual term of between one and two years from acceptance. KRONES therefore expects that the majority of provisions for warranties will be settled within the next two years.

The other remaining provisions primarily include provisions for damages and legal fees. The non-current provisions have been discounted using rates between 0.6% and 1.0%.

16 Liabilities

€ thousand	Residual term of up to 1 year	Residual term of 1 to 5 years	Residual term of over 5 years	Total at 31 Dec 2019
Liabilities to banks	72,178	64	0	72,242
Contract liabilities	442,884	0	0	442,884
Trade payables	463,722	14	0	463,736
Other financial obligations	5,085	45,666	0	50,751
Liabilities from leases	29,802	56,034	3,212	89,048
Other liabilities*	325,818	2,600	0	328,418
Total	**1,339,489**	**104,378**	**3,212**	**1,447,079**

* The other liabilities include €98,654 thousand in financial liabilities.

€ thousand	Residual term of up to 1 year	Residual term of 1 to 5 years	Residual term of over 5 years	Total at 31 Dec 2018
Liabilities to banks	555	3,169	0	3,724
Contract liabilities	547,222	0	0	547,222
Trade payables	491,585	1	0	491,586
Other financial obligations	106,552	41,125	0	147,677
Liabilities from leases	118	177	0	295
Other liabilities*	261,655	2,298	0	263,953
Total	**1,407,687**	**46,770**	**0**	**1,454,457**

* The other liabilities include €72,176 thousand in financial liabilities.

Liabilities to banks carried interest at an average rate of 0.15% in the financial year.

Reconciliation of movements in liabilities to cash flow from financing activities

The table below shows changes in liabilities to banks and lease liabilities as a result of cash and non-cash changes.

€ thousand	31 Dec 2018	Non-cash change due to first-time application of IFRS 16	Other changes	Cash changes	Non-cash change due to acquisi-tions	31 Dec 2019
Liabilities to banks	3,724			68,518	0	72,242
Liabilities from leases	295	88,186	31,537	−32,156	1,186	89,048
Total	**4,019**	**88,186**	**31,537**	**36,362**	**1,186**	**161,290**

€ thousand	31 Dec 2017	Non-cash change due to first-time application of IFRS 16	Other changes	Cash changes	Non-cash change due to acquisi-tions	31 Dec 2018
Liabilities to banks	24,620		0	−24,065	3,169	3,724
Liabilities from leases	102		291	−98	0	295
Total	**24,722**		**291**	**−24,163**	**3,169**	**4,019**

The other changes mainly comprise additions from new leases.

The other financial obligations are obligations on bills, put/call options and earn-out obligations. Under IFRS 9, the obligations on bills represent possible liabilities from bills sold and are also recognised as trade receivables amounting to €0 thousand (previous year: €106,670 thousand).

The other liabilities break down as follows:

€ thousand	Residual term of up to 1 year	Residual term of 1 to 5 years	Residual term of over 5 years	Total at 31 Dec 2019
Tax liabilities	36,382	74	0	36,456
Social security liabilities	8,959	0	0	8,959
Payroll liabilities	23,802	928	0	24,730
Accruals	221,998	0	0	221,998
Other	34,677	1,598	0	36,275
Total	**325,818**	**2,600**	**0**	**328,418**

Accruals, which amounted to €221,998 thousand (previous year: €158,605 thousand), have greater certainty with respect to their amount and timing than is the case with provisions. The primary items they include are outstanding supplier invoices, obligations relating to flexible working hours, accrued vacation, and performance bonuses.

€ thousand	Residual term of up to 1 year	Residual term of 1 to 5 years	Residual term of over 5 years	Total at 31 Dec 2019
Tax liabilities	32,999	0	0	32,999
Social security liabilities	9,887	0	0	9,887
Payroll liabilities	27,653	1,354	0	29,007
Accruals	158,605	0	0	158,605
Other	32,511	944	0	33,455
Total	**261,655**	**2,298**	**0**	**263,953**

17 Contingent liabilities

There were no contingent liabilities in the reporting period or in the previous year.

18 Other disclosures relating to financial instruments

The derivative financial instruments of the KRONES Group substantially cover the currency risks relating to the US dollar, the Canadian dollar, the Norwegian krone, the Japanese yen and the euro.

The nominal and fair values of the derivative financial instruments are as follows at the reporting date:

€ thousand	31 Dec 2019	31 Dec 2018	31 Dec 2019	31 Dec 2018
	Nominal value	Nominal value	Fair value	Fair value
Financial assets				
Currency hedging				
Forward exchange contracts	85,689	55,041	903	860
of which hedge accounting	76,953	28,875	872	450
Financial liabilities				
Currency hedging				
Forward exchange contracts	197,511	73,431	3,392	1,981
of which hedge accounting	97,853	61,338	2,479	1,781

The fair value includes the difference between the forward rate received from the relevant commercial bank and the rate at the reporting date together with appropriate premiums or discounts under accepted appraisal methodologies. These financial instruments are generally accounted for at the trade date.

Default risk relating to derivative financial instruments in the event of counterparty default is limited to the balance of the positive fair values. The cash flow hedges presented are judged to be effective. The net loss from derivatives was –€5.037 thousand in the reporting period (previous year: net loss of €386 thousand).

The German master agreements and ISDA agreements do not meet the criteria to require offsetting in the consolidated statement of financial position. That is because the company currently does not have a legally enforceable right to offset the recognised amounts. The right to offset these amounts is only enforceable if future events occur such as insolvency of a party to the contract. Hedging transactions entered into directly by subsidiaries of the KRONES Group also cannot be offset.

The table below presents the carrying amounts of the financial assets and liabilities underlying these agreements:

€ thousand	31 Dec 2019	31 Dec 2018
Financial assets		
Gross amounts of recognised financial assets	1,688,445	1,887,606
Amounts that are netted in accordance with IAS 32.42	0	0
Net amounts of recognised financial assets	1,688,445	1,887,606
Amounts subject to master netting agreement		
Derivates	–3,392	–1,981
Net amount of financial assets	1,685,053	1,885,625
Financial liabilities		
Gross amounts of recognised financial liabilities	774,431	715,458
Amounts that are netted in accordance with IAS 32.42	0	0
Net amounts of recognised financial liabilities	774,431	715,458
Amounts subject to master netting agreement	0	0
Derivates	–903	–860
Net amount of financial liabilities	773,528	714,598

The following table presents the financial instruments by their measurement categories and classes and also shows how the financial instruments that are measured at fair value fit within the fair value hierarchy.

31 Dec 2019			Measurement under IFRS 9				Measurement hierarchy		
€ thousand	Carrying amount at 31 Dec 2019	Of which subject to IFRS 7	At amortised cost (AC)	At fair value through profit or loss (FVTPL)	At fair value through other comprehensive income (FVOCI)	Measurement under IFRS 16	Level 1	Level 2	Level 3
Assets									
Non-current financial assets	28,127	3,307	3,307						
Trade receivables	961,789	961,789	961,789						
Contract assets	571,261	571,261	571,261						
Other assets	165,419	41,706	40,803	31	872			903	
of which derivatives	903	903		31	872			903	
Cash and cash equivalents	110,382	110,382	110,382						
Liabilities									
Liabilities to banks	72,242	72,242	72,242						
Trade payables	463,736	463,736	463,736						
Other financial liabilities and lease liabilities	139,799	139,799		50,751		89,048			50,751
Other liabilities and provisions	328,418	98,654	95,262	913	2,479			3,392	
of which derivatives	3,392	3,392		913	2,479			3,392	

31 Dec 2018			Measurement under IFRS 9				Measurement hierarchy		
€ thousand	Carrying amount at 31 Dec 2018	Of which subject to IFRS 7	At amortised cost (AC)	At fair value through profit or loss (FVTPL)	At fair value through other comprehensive income (FVOCI)	Measurement under IAS 17	Level 1	Level 2	Level 3
Assets									
Non-current financial assets	8,770	3,805	3,805						
Trade receivables	987,970	987,970	987,970						
Contract assets	647,089	647,089	647,089						
Other assets	166,128	29,940	29,080	410	450			860	
of which derivatives	860	860		410	450			860	
Cash and cash equivalents	218,802	218,802	218,802						
Liabilities									
Liabilities to banks	3,724	3,724	3,724						
Trade payables	491,586	491,586	491,586						
Other financial liabilities	147,972	147,972	106,889	41,083					41,083
Other liabilities and provisions	263,953	72,176	69,899	199	1,781	295		1,982	
of which derivatives	1,982	1,982		199	1,781			1,982	

Financial instruments categorised as Level 3 inputs and measured at fair value developed as follows:

€ thousand	2019	2018
Net carrying amount at 1 January	41,083	26,974
Additions resulting from acquisitions	0	2,582
Changes	9,668	11,527
(of which currency effects)	172	234
Net carrying amount at 31 December	50,751	41,083

There were no other changes. The financial liabilities, which are based on individual measurement parameters and recognised at fair value, comprise contingent consideration and combined put/call options relating to acquisitions. These items are recognised under other financial liabilities and have been measured on the basis of recognised accounting models, taking into account contractual agreements as well as market and company data available at the reporting date.

The fair value of the put/call option for SYSTEM LOGISTICS was measured using the discounted cash flow method. The main input factors are medium-term planning and the discount rate. The estimated range of the undiscounted exercise prices is between €18,070 thousand and €55,104 thousand at the reporting date. On this basis, the fair value at the reporting date was €36,133 thousand. The fair value of the put option for IPS PLASTICS was measured using the discounted cash flow method. The main input factors are medium-term planning and the discount rate. On this basis, the fair value at the reporting date was €1,277 thousand.

There were no transfers between levels of the hierarchy.

The age structure of trade receivables and other receivables is as follows at 31 December 2019:

€ thousand		Carrying amount	Of which not overdue at the reporting date	Of which overdue by the following number of days at the reporting date			
				Up to 90 days	Between 90 and 180 days	Between 180 and 360 days	More than 360 days
31 Dec 2019	Trade receivables and contract assets	1,533,050	1,368,344	115,204	21,677	19,501	8,324
31 Dec 2018	Trade receivables and contract assets	1,635,059	1,460,726	116,017	21,212	24,337	12,767

The default risk to which the Group is exposed in trade receivables and contract assets primarily depends on customer creditworthiness.

KRONES' management has implemented a process in which each customer is assessed in terms of creditworthiness on the basis of external data such as ratings or internal data such as payment history and past-due status of receivables.

The final assessment is made on the basis of customer groups and a classification of customers into one of five risk categories, A to E, according to past-due status.

An expected credit loss rate is computed for each risk category on the basis of meaningful data.

The table below shows the gross carrying amounts and expected credit losses on trade receivables and contract assets:

Rating-based at 31 Dec 2019	Gross carrying amount in € thousand	Average loss rate	Loss allowance in € thousand
Key accounts	536,860	0.11%	501
Major customers	706,849	1.81%	7,224
Total	**1,243,709**		**12,179**

Rating-based at 31 Dec 2018	Gross carrying amount in € thousand	Average loss rate	Loss allowance in € thousand
Key accounts	471,345	0.45%	1,984
Major customers	821,086	0.99%	7,330
Total	**1,292,431**		**9,314**

Indicators that trade receivables and contract assets may be impaired include significant financial difficulties on the part of the customer.

	Category					
31 Dec 2019	A	B	C	D	E	**Total**
Average loss rate (%)	0.56 %	0.50 %	1.45 %	4.20 %	11.21 %	
Gross carrying amount in € thousand	252,763	42,674	15,182	7,001	12,291	**329,911**
Loss allowance in € thousand	1,417	212	220	294	1,378	**3,521**

	Category					
31 Dec 2018	A	B	C	D	E	**Total**
Average loss rate (%)	0.23 %	0.18 %	1.70 %	5.33 %	39.62 %	
Gross carrying amount in € thousand	279,308	49,426	9,342	9,998	8,225	**356,299**
Loss allowance in € thousand	608	81	147	495	3,026	**4,357**

In addition, specific valuation allowances were recognised in the amount of €24,874 thousand (previous year: €21,901 thousand) for uncollectible receivables.

The following overview of maturities shows how the undiscounted cash flows relating to liabilities as of 31 December 2019 influence the company's liquidity situation.

€ thousand	Carrying amount at 31 Dec 2019	Cash flow 2020		Cash flow 2021–2024		Cash flow beyond 2024	
		Interest	Repayment	Interest	Repayment	Interest	Repayment
Derivative financial instruments	3,392	0	2,828	0	564	0	0
Liabilities to banks	72,242	0	72,178	3	64	0	0
Trade payables	463,736	0	463,722	0	14	0	0
Liabilities from leases	89,048	2,082	29,802	5,125	56,034	611	3,212
Other financial liabilities	146,013	0	100,347	0	47,216	0	0
	774,431	**2,082**	**668,877**	**5,128**	**103,892**	**611**	**3,212**

€ thousand	Carrying amount at 31 Dec 2018	Cash flow 2019		Cash flow 2020–2023		Cash flow beyond 2023	
		Interest	Repayment	Interest	Repayment	Interest	Repayment
Derivative financial instruments	1,982	0	1,980	0	2	0	0
Liabilities to banks	3,724	0	555	680	3,169	0	0
Trade payables	491,586	0	491,585	0	1	0	0
Liabilities from leases	295	6	118	15	177	0	0
Discounted trade bills	106,670	0	106,670	0	0	0	0
Other financial liabilities	111,201	0	69,899	44	41,302	0	0
	715,458	**6**	**670,807**	**739**	**44,651**	**0**	**0**

Material items denominated in foreign currencies in accordance with IFRS 7 classes:

31 Dec 2019 € thousand	Currency USD	Currency NOK	Currency CAD	Currency CNY	Currency JPY
Cash and cash equivalents	310	0	450	0	0
Trade receivables	0	1.920	0	0	0
Other financial receivables	0	0	0	0	0
Derivatives at positive market values	395	0	0	1	474
Total assets	**705**	**1.920**	**450**	**1**	**474**
Liabilities					
Trade payables	2,044	18	8,117	317	−3,129
Liabilities to banks	0	0	0	0	0
Other liabilities	0	0	0	0	0
Derivatives at negative market values	1,611	24	1,198	545	−8
Total liabilities	**3,655**	**42**	**9,315**	**862**	**−3,137**
Balance of assets and liabilities	**−2,950**	**1,878**	**−8,865**	**−861**	**−2,663**
Net exposure at 31 Dec 2019	**−2,950**	**1,878**	**−8,865**	**−861**	**−2,663**

A change in the reporting date exchange rate by +10% in relation to the foreign currency against the euro (indirect quotation) would have the following effect on consolidated net income and other equity components:

€ thousand	Currency USD	Currency NOK	Currency CAD	Currency CNY	Currency JPY
Consolidated statement of profit and loss	−2,958	−12	536	−2,512	206
Consolidated equity	5,590	0	1,654	1,953	1,478

31 Dec 2018 € thousand	Currency USD	Currency NOK	Currency CAD	Currency CNY	Currency GBP
Cash and cash equivalents	395	0	132	56	0
Trade receivables	907	0	5.238	0	0
Other financial receivables	0	635	34	0	0
Derivatives at positive market values	194	284	269	0	45
Total assets	**1,496**	**919**	**5,673**	**56**	**45**
Liabilities					
Trade payables	−2,114	0	0	−1,082	−39
Liabilities to banks	0	0	0	0	0
Other liabilities	−856	−14,217	−2,543	0	−4,007
Derivatives at negative market values	−1,100	−11	−7	−589	0
Total liabilities	**−4,070**	**−14,228**	**−2,550**	**−1,671**	**−4,046**
Balance of assets and liabilities	**−2,574**	**−13,309**	**3,123**	**−1,615**	**−4,001**
Net exposure at 31 Dec 2018	**−2,574**	**−13,309**	**3,123**	**−1,615**	**−4,001**

A change in reporting date closing rate by +10% in relation to the foreign currency against the euro (indirect quotation) would have the following effect on consolidated net income and other equity components:

€ thousand	Currency USD	Currency NOK	Currency CAD	Currency CNY	Currency GBP
Consolidated statement of profit and loss	–116	1,254	–87	68	567
Consolidated equity	3,022	1,254	553	214	671

Notes to the **consolidated statement of profit and loss**

19 Revenue

The KRONES Group's revenue of €3,958,875 thousand (previous year: €3,853,980 thousand) is recognised revenue from contracts with customers. Revenue from contracts with customers breaks down by segment and invoice recipients in geographical regions as follows.

€ thousand	2019		2018	
	Machines and Lines for Product Filling and Decoration	Machines and Lines for Beverage Production/ Process Technology	Machines and Lines for Product Filling and Decoration	Machines and Lines for Beverage Production/ Process Technology
Germany	394,327	74,027	273,431	88,913
Central Europe (excluding Germany)	187,141	13,832	205,006	19,587
Western Europe	448,784	171,362	543,892	177,751
Middle East/Africa	385,806	65,640	424,271	76,371
Eastern Europe	201,245	44,152	164,971	22,458
Russia, Central Asia (CIS)	69,992	6,365	62,014	17,842
Asia-Pacific	449,856	71,182	402,170	43,556
China	361,781	10,039	277,993	12,778
North and Central America	536,520	146,939	420,611	112,452
South America/Mexico	229,965	89,920	403,491	104,422
Total	**3,265,417**	**693,458**	**3,177,850**	**676,130**

The group's contract assets and contract liabilities changed as follows in the financial year:

€ thousand	31 Dec 2019	31 Dec 2018
Contract assets	571,261	647,089
Contract liabilities	442,884	547,222

The amount of revenue recognised in 2019 that was included in the contract liability balance at the beginning of the reporting period was €547,222 thousand (previous year: €392,986 thousand).

The reduction in contract assets is mainly due to a lower volume of work in progress. The reduction in contract liabilities is mainly due to lower prepayments from customers.

The amount of the transaction price allocated to performance obligations unsatisfied (or partially unsatisfied) at the end of the reporting period was €32,057 thousand (previous year: €25,072 thousand). KRONES will recognise most of this as revenue in the next 36 months. No disclosures under IFRS 15.120 are made for performance obligations with an original expected duration of one year or less.

Most revenue in the Machines and Lines for Product Filling and Decoration segment and almost all revenue in the Machines and Lines for Beverage Production/Process Technology segment is recognised over time.

20 Other own work capitalised

Other own work capitalised consists primarily of capitalised development expenditure and capitalised cost of self-constructed property, plant and equipment at the Hungary and Neutraubling production locations.

With respect to development expenditure capitalised in accordance with IAS 38, please refer to the notes on intangible assets.

21 Other operating income

Apart from prior-period income from reversal of provisions and accruals (€16,062 thousand; previous year: €13,727 thousand), gains from disposals of non-current assets (€846 thousand; previous year: €479 thousand) and the reversal of loss allowances (€2,032 thousand; previous year: €7,910 thousand), the other operating income, which amounts to €99,826 thousand (previous year: €114,492 thousand), consists substantially of currency translation gains of €35,505 thousand (previous year: €36,548 thousand). This compares with additions to loss allowances of €14,598 thousand (previous year: €3,148 thousand) and currency translation losses of €45,888 thousand (previous year: €45,201 thousand) under other operating expenses.

22 Goods and services purchased

The expenses for goods and services purchased comprises expenses for materials and supplies and for goods purchased amounting to €1,525,551 thousand (previous year: €1,523,504 thousand) and expenses for services purchased amounting to €516,237 thousand (previous year: €508,521 thousand).

23 Personnel expenses

Within the KRONES Group, 16,589 people (previous year: 15,330) including trainees (591; previous year: 546) were employed on average over the year. The workforce of the KRONES Group is composed as follows (average for the year):

	2019	2018
White-collar employees exempt from collective agreements	2,907	2,766
Employees covered by collective agreements	13,682	12,564
Total	**16,589**	**15,330**

24 Other operating expenses

Apart from the €630 thousand in prior-period losses from disposals of non-current assets (previous year: €453 thousand), the other operating expenses include additions to loss allowances (€14,598 thousand; previous year: €3,148 thousand), other taxes (€6,152 thousand; previous year: €5,664 thousand), freight costs (€121,034 thousand; previous year: €124,272 thousand), travel costs (€115,479 thousand; previous year: €110,677), currency translation losses (€45,888; previous year: €45,201 thousand), rent and cleaning costs (€6,719 thousand; previous year: €40,873 thousand) and maintenance costs (€38,985 thousand; previous year: €36,191 thousand).

25 Financial income/expense

The financial income/expense of –€2,206 thousand (previous year: €1,099 thousand) breaks down as follows:

€ thousand	2019	2018
Income from other securities and long-term loans	0	2
Interest and similar income	7,520	6,121
Interest and similar expenses	–14,628	–14,592
Interest income/expense	–7,108	–8,471
Investment income	5,588	8,747
Profit or loss shares attributable to associates that are accounted for using the equity method	–686	821
Net financial income/expense	**–2,206**	**1,099**

Besides interest and similar income of €7,520 thousand (previous year: €6,121 thousand) and interest and similar expenses of €14,628 thousand (previous year: €14,592 thousand), financial income/expense also included investment income of €5,588 thousand (previous year: €8,747 thousand) relating to non-consolidated companies. The interest and similar income includes €1.231 thousand (previous year: €563 thousand) for reductions in put options and earn-out obligations. The interest and similar expenses include €3,297 thousand (previous year: €4 thousand) in interest on lease liabilities, €4,729 thousand for impairment of the equity-accounted shares in INTEGRATED PACKAGING SYSTEMS (IPS) FZCO, Dubai and €3,615 thousand (previous year: €10,749 thousand) for an increase in put options and earn-out obligations. Further information on investments accounted for using the equity method is provided in Note 4.

26 Income tax

Income tax amounted to –€32,501 thousand in 2019 (previous year: –€53,650 thousand). *Further information is presented under Note 8, "Income tax" (pages 161 to 162).*

27 Earnings per share

Under IAS 33 "Earnings per share", basic earnings per share are calculated by dividing consolidated net income – less profit or loss shares of non-controlling interests – by the weighted average number of ordinary shares in circulation, as follows:

As in the previous year, diluted earnings per share are equal to basic earnings per share.

	2019	2018
Consolidated net income less profit or loss shares of non-controlling interests (€ thousand)	9,491	151,083
Weighted average number of ordinary shares in circulation (shares)	31,593,072	31,593,072
Earnings per share (€)	**0.30**	**4.78**

Accounting standards applied for the first time

First-time application of the new financial reporting standard IFRS 16 Leases from Contracts with Customers results in changes to the group's accounting policies as described in the following. Other financial reporting standards and interpretations to be applied for the first time have no effect on the consolidated financial statements.

IFRS 16 Leases

IFRS 16 replaces the existing rules on leases, including IAS 17 Leases, IFRIC 4 Determining Whether an Arrangement Contains a Lease, SIC 15 Operating Leases and SIC 27 Evaluating the Substance of Transactions in the Legal Form of a Lease. The standard was applied for the first time as of 1 January 2019.

The group elected to use the practical expedient for transition. It is therefore not required to reassess whether a contract is, or contains, a lease at 1 January 2019. Instead, the group has only applied the standard to contracts that were identified at the initial application date as leases applying IAS 17 Leases and IFRIC 4 Determining whether an Arrangement contains a Lease.

KRONES applies the modified retrospective method, according to which the cumulative effects of first-time application are shown as an adjustment to the opening balance of profit reserves. On first-time application, right-of-use assets were recognised in the amount of the present value of the lease liabilities totalling €88.481 thousand with no resulting change in profit reserves. The prior-year figures were not restated.

With regard to the elections provided for in the standard, KRONES makes use of the practical expedients for leases of low-value assets, short-term leases and leases of intangible assets. In addition, any service components included in lease payments were included in calculation of the present value of the lease payments.

Operating lease liabilities as of 31 December 2018 are reconciled to the opening balance of lease liabilities as of 1 January 2019 as follows:

€ thousand	1 Jan 2019
Operating lease liabilities at 31 December 2018*	72,524
Minimum lease payments (nominal amount) on finance lease liabilities at 31 December 2018	307
Practical expedient for leases of low-value assets	–1,702
Extension and termination options that are reasonably certain to be exercised	27,063
Gross lease liabilities at 1 January 2019	**98,191**
Discounting	9,710
Lease liabilities at 1 January 2019	**88,481**
Present value of finance lease liabilities at 31 December 2018	–295
Additional lease liabilities resulting from initial application of IFRS 16 at 1 January 2019	**88,186**

*Corrected amount

The lease liabilities were discounted as of January 1, 2019 using the incremental borrowing rate. The weighted average incremental borrowing rates was 3.6%. For the purpose of determining the incremental borrowing rate, benchmark interest rates for the lease terms of committed leases were derived from yields on similar corporate bonds in a similar economic environment and with similar security. The benchmark interest rates were supplemented by a lease risk premium.

Information on right-of-use assets and lease liabilities, together with further explanations, are provided under the respective items of the statement of financial position.

Other disclosures

Audit and consulting fees

The total fee invoiced by the auditor of the financial statements was as follows:

€ thousand	2019
Audit services	471
Other assurance services	59
Other services	30

Disclosures in accordance with the EU Audit Regulation

Other assurance services include statutory audits of corporate governance and supervision systems and functions (non-audit services required by national law) and non-statutory assurance services relating to non-financial information (non-audit services).

The other services are a benchmark analysis (non-audit service).

Events after the reporting period

The outbreak and rapid spread of the coronavirus (COVID-19) since the beginning of 2020 has affected business and economic activity not only in China, but also worldwide. The financial effect of this event on Krones could not be estimated at the time of publication of the annual report because it was not possible to estimate the extent of the spread and the consequences for KRONES' business.

Related party disclosures

Within the meaning of IAS 24 Related Party Disclosures, the members of the Supervisory Board and of the Executive Board of KRONES AG and the companies of the KRONES Group, including unconsolidated subsidiaries, are deemed related parties.

The ultimate controlling party of KRONES AG is Familie Kronseder Konsortium GbR. Purchases and sales between the related companies are transacted at prices customary on the market ("at arm's length"). Sales to subsidiaries that are not consolidated amounted to €31,534 thousand in 2019 (previous year: €27,738 thousand). Commissions received from such subsidiaries amounted to €5,262 thousand in 2019 (previous year: €8,885 thousand). Trade and other payment transactions resulted in assets of €11,972 thousand (previous year: assets of €10,008 thousand). Repayment is normally within twelve months. Loss allowances were recognised on receivables in the amount of €2,959 thousand in the financial year (previous year: €0 thousand). Also included is income from long-term equity investments in non-consolidated entities in the amount of €5,588 thousand (previous year: €8,747 thousand).

There are no contingent liabilities relating to guarantees (previous year: €2,697 thousand). Trade and other payment transactions with associates totalled €6,946 thousand in 2019 (previous year: €22,532 thousand). This did not result in any liabilities (previous year: liabilities of €1,616 thousand).

Executive Board remuneration and benefits paid to former members of the Executive Board

Total Executive Board remuneration, plus expenses for the long-term incentive provision and benefit expense for the termination agreement with Mr. Michael Andersen, amounted to €6,897 thousand for the 2019 financial year (previous year: €5,745 thousand).

This includes short-term benefits in the amount of €2,258 thousand (previous year: €4,084 thousand), other long-term benefits in the amount of €686 thousand (previous year: €489 thousand) and early termination benefits in the amount of €2,781 thousand (previous year: €0 thousand). The short-term benefit expense is reduced by the Executive Board waiving payment of remuneration components or by contractual arrangements on leaving. In addition, €1,172 thousand (previous year: €1,172 thousand) was paid into the contribution-based post-employment benefits plan in 2019. Information on the individual remuneration of members of the Executive Board is provided in the remuneration report.

Benefits granted to former members of the Executive Board and their surviving dependants amounted to €1,842 thousand (previous year: €1,688 thousand). This mainly consists of pension benefits. Pension provisions were recognised in the amount of €12,069 thousand (previous year: €8,761 thousand). The increase relates to changes in the actuarial discount rate.

Supervisory Board remuneration

The total remuneration paid to members of the Supervisory Board for the 2019 financial year amounted to €812 thousand (previous year: €712 thousand). Information on the individual remuneration of members of the Supervisory Board is provided in the remuneration report.

Corporate Governance

Shareholders can view the declaration of the Executive Board and the Supervisory Board of 22 January 2020 pursuant to Section 161 of the German Stock Corporation Act [AktG] concerning the Corporate Governance Code as amended on 7 February 2017 at KRONES AG's website. The exceptions are also listed there.

Risk report

The risk report is part of the management report and is on pages 92 to 102.

Standards/interpretations

The accounting policies used in these consolidated financial statements are the standards and interpretations whose application is mandatory as of 31 December 2019. The following new or amended standards and interpretations applied for the 2019 financial year.

Standard or interpretation		Endorsement	Application mandatory for annual periods beginning
IAS 19	Amendments to: Plan Amendment, Curtailment or Settlement	completed	1 Jan 2019
IAS 28	Amendments to: Long-term Interests in Associates and Joint Ventures	completed	1 Jan 2019
IFRS 9	Amendments to: Prepayment Features with Negative Compensation	completed	1 Jan 2019
IFRS 16	Leases	completed	1 Jan 2019
IFRIC 23	Uncertainty over Income Tax Treatments	completed	1 Jan 2019
	Annual Improvements to IFRS – 2015–2017 Cycle	completed	1 Jan 2019

Various new or amended standards entered into force in the reporting period. First-time application of the new standard IFRS 16 Leases resulted in changes to the group's accounting policies. The effects of first-time application of this standard are described on page 176. The remaining new or amended standards and interpretations listed above have no material relevance for KRONES AG.

The following standards and interpretations have been issued by the IASB but their application is not mandatory until after 31 December 2019.

Standard or interpretation		Endorsement	Application mandatory for annual periods beginning
Conceptual Framework	Amendments to: Conceptual Framework for Financial Reporting and Amendments to References to the Conceptual Framework in IFRS Standards	completed	1 Jan 2020
IAS 1	Amendments to: Classification of Liabilities as Current or Non-Current	open	1 Jan 2022
IFRS 3	Amendments to: Definition of a Business	open	1 Jan 2020
IFRS 17	Insurance Contracts	open	1 Jan 2021
IAS 1 und 8	Amendments to: Definition of Material	completed	1 Jan 2020
IFRS 9, IAS 29 and IFRS 7	Amendments to: Interest Rate Benchmark Reform	completed	1 Jan 2020

These standards and interpretations are not expected to have a material impact on the consolidated financial statements of KRONES AG in the reporting period to which they are applied for the first time.

Shareholdings

Name and location of the company	Share in capital held by KRONES AG (%*)
DEKRON GMBH, Kelkheim	100.00
ECOMAC GEBRAUCHTMASCHINEN GMBH, Neutraubling	100.00
EVOGUARD GMBH, Nittenau	100.00
GERNEP GMBH ETIKETTIERTECHNIK	100.00
HST MASCHINENBAU GMBH, Dassow	100.00
KIC KRONES INTERNATIONALE COOPERATIONS-GESELLSCHAFT MBH, Neutraubling	100.00
KRONES BETEILIGUNGSGESELLSCHAFT MBH, Neutraubling	100.00
KRONES SERVICE EUROPE GMBH (former MAINTEC SERVICE GMBH), Collenberg/Main	100.00
MHT HOLDING AG, Hochheim am Main	100.00
MHT MOLD & HOTRUNNER TECHNOLOGY AG, Hochheim am Main	100.00
MILKRON GMBH, Laatzen	100.00
PMR GMBH, Wackersdorf	100.00
SYSKRON GMBH, Wackersdorf	100.00
SYSKRON HOLDING GMBH, Wackersdorf	100.00
SYSKRON X GMBH, Wackersdorf	100.00
SYSTEM LOGISTICS GMBH, Wackersdorf (former NEUSPED NEUTRAUBLINGER SPEDITIONS-GMBH, Neutraubling)	100.00
TECHNOLOGISCHES INSTITUT FÜR ANGEWANDTE KÜNSTLICHE INTELLIGENZ GMBH, Weiden i. d. Opf.	44.00
TRIACOS CONSULTING & ENGINEERING GMBH, Altenstadt an der Waldnaab	100.00
KOSME FBA SA (former S.P.S. – SOLUTIONS FOR PACKAGING SERVICES S.A.), Charleroi, Belgium	100.00
S.A. KRONES N.V., Louvain-la-Neuve, Belgium	100.00
KRONES SERVICE EUROPE EOOD (former MAINTEC SERVICE EOOD), Sofia, Bulgaria	100.00
KRONES NORDIC APS, Holte, Denmark	100.00
KRONES S.A.R.L., Viviers-du-Lac, France	100.00

*Direct and indirect shareholdings

Name and location of the company	Share in capital held by KRONES AG (%*)
KOSME FBA SAS (former SPS S.A.S. – SOLUTIONS FOR PACKAGING SERVICES S.A.S.), Lyon, France	100.00
KRONES UK LTD., Bolton, U.K.	100.00
SYSTEM LTD., London, U.K.	60.00
KOSME S.R.L., Roverbella (MN), Italy	100.00
KRONES S.R.L., Garda (VR), Italy	100.00
SYSTEM LOGISTICS S.P.A., Fiorano Modenese (MD), Italy	60.00
KRONES KAZAKHSTAN TOO, Almaty, Kazakhstan	100.00
IPS INTEGRATED PACKAGING SYSTEMS MALTA LTD., Naxxar, Malta	100.00
KRONES NEDERLAND B.V., Bodegraven, Netherlands	100.00
KOSME GESELLSCHAFT MBH, Sollenau, Austria	100.00
KRONES SPÓLKA Z.O.O., Warschau, Poland	100.00
KRONES PORTUGAL EQUIPAMENTOS INDUSTRIAIS LDA., Barcarena, Portugal	100.00
KRONES ROMANIA PROD. S.R.L., Bukarest, Romania	100.00
KRONES SERVICE EUROPE SRL (former MAINTEC SERVICE SRL), Bukarest, Romania	100.00
KRONES O.O.O., Moscow, Russia	100.00
SYSTEM NORTHERN EUROPE AB, Malmö, Sweden	60.00
INTEGRATED PLASTICS SYSTEMS AG, Baar, Switzerland	70.00
KRONES AG, Buttwil, Switzerland	100.00
KRONES IBERICA, S.A.U., Barcelona, Spain	100.00
SYSTEM LOGISTICS SPAIN SL, Castellon, Spain	60.00
KRONES S.R.O., Prague, Czech Republic	100.00
KONPLAN S.R.O., Pilsen, Czech Republic	100.00
KRONES MAKINA SANAYI VE TIKARET LTD. SIRKETI, Istanbul, Turkey	100.00
KRONES UKRAINE LLC, Kiev, Ukraine	100.00
KRONES HUNGARY KFT., Debrecen, Hungary	100.00
KRONES SERVICE EUROPE KFT. (former MAINTEC SERVICE KFT.), Budapest, Hungary	100.00
INTEGRATED PACKAGING SYSTEMS – IPS, Cairo, Egypt	100.00
KRONES ANGOLA – REPRESENTACOES, COMERCIO E INDUSTRIA, LDA., Luanda, Angola	100.00

*Direct and indirect shareholdings

Name and location of the company	Share in capital held by KRONES AG (%*)
KRONES SURLATINA S.A., Buenos Aires, Argentina	100.00
KRONES PACIFIC PTY LIMITED, Sydney, Australia	100.00
KRONES BANGLADESH LIMITED, Dhaka, Bangladesh	100.00
KRONES DO BRAZIL LTDA., São Paulo, Brazil	100.00
KRONES S.A., São Paulo, Brazil	100.00
KRONES CHILE SPA., Santiago de Chile, Chile	100.00
KRONES ASIA LTD., Hong Kong, China	100.00
KRONES MACHINERY (TAICANG) CO. LTD., Taicang, China	100.00
KRONES TRADING (TAICANG) CO. LTD., Taicang, China	100.00
KRONES PROCESSING (SHANGHAI) CO. LTD., Shanghai, China	100.00
KRONES SALES (BEIJING) CO. LTD., Beijing, China	100.00
AUTOMATA S.A., Guatemala-City, Guatemala	100.00
KRONES INDIA PVT. LTD., Bangalore, India	100.00
UNICORN INDUSTRIES LTD., Secunderabad, India	60.00
PT. KRONES MACHINERY INDONESIA, Jakarta, Indonesia	100.00
IPS JAPAN CO. LTD., Tokyo, Japan	100.00
KRONES JAPAN CO. LTD., Tokyo, Japan	100.00
KRONES (CAMBODIA) CO. LTD., Phnom Penh, Cambodia	100.00
INTEGRATED PACKAGING SYSTEMS INC., Montréal, Québec, Canada	100.00
KRONES MACHINERY CO. LTD., Mississauga, Ontario, Canada	100.00
KRONES LCS CENTER EAST AFRICA LIMITED, Nairobi, Kenya	100.00
KRONES ANDINA LTDA., Bogotá, Colombia	100.00
KRONES KOREA LTD., Seoul, Korea	100.00
KRONES MACHINERY MALAYSIA SDN. BHD., Kuala Lumpur, Malaysia	100.00
KRONES MEX S.A. DE C.V., Mexico-City, Mexico	100.00
SYSTEMLOG DE MEXICO S.A. DE C.V., Santa Caterina, Nuevo Leon, Mexico	60.00
KRONES MYANMAR LTD., Sanchaung Township, Republik der Union Myanmar	100.00
KRONES NEW ZEALAND LIMITED, Auckland, New Zealand	100.00
KRONES LCS CENTER WEST AFRICA LIMITED, Lagos, Nigeria	100.00

*Direct and indirect shareholdings

Name and location of the company	Share in capital held by KRONES AG (%*)
KRONES PAKISTAN (PRIVATE) LIMITED, Lahore, Pakistan	100.00
KRONES FILIPINAS INC., Taguig City, Philippines	100.00
KRONES-IZUMI PROCESSING PTE LTD., Singapore, Singapore	73.00
KRONES SINGAPORE LTD., Singapore, Singapore	100.00
INTEGRATED PACKAGING SYSTEMS SOUTH AFRICA (PTY) LIMITED, Cape Town, South Africa	100.00
KRONES SOUTHERN AFRICA (PROP.) LTD., Johannesburg, South Africa	100.00
KRONES (THAILAND) CO. LTD., Bangkok, Thailand	100.00
SYSTEM LOGISTICS ASIA CO. LTD., Bangkok, Thailand	60.00
INTEGRATED PACKAGING SYSTEMS – IPS TUNISIA, Tunis, Tunesia	100.00
KRONES INC., Franklin, Wisconsin, USA	100.00
SYSTEM LOGISTICS CORPORATION, Arden, North Carolina, USA	60.00
TRANS-MARKET LLC, Tampa, Florida, USA	100.00
JAVLYN PROCESS SYSTEMS LLC, Rochester, New York, USA	100.00
MHT USA LLC., Peachtree City, Georgia, USA	100.00
PROCESS AND DATA AUTOMATION LLC, Erie, Pennsylvania, USA	100.00
W.M. SPRINKMAN LLC, Waukesha, Wisconsin, USA	100.00
MAQUINARIAS KRONES DE VENEZUELA S.A., Caracas, Venezuela	100.00
INTEGRATED PACKAGING SYSTEMS (IPS) FZCO, Dubai, United Arab Emirates	100.00
KRONES MIDDLE EAST AFRICA FZCO, Dubai, United Arab Emirates	100.00
KRONES VIETNAM CO. LTD., Ho-Chi-Minh-City, Vietnam	100.00

*Direct and indirect shareholdings

Use of exemptions

The following fully consolidated German group companies made use of the exemption in Section 264 (3) HGB in the 2019 financial year.

Name and location of the company
KRONES BETEILIGUNGSGESELLSCHAFT MBH, Neutraubling
DEKRON GMBH, Kelkheim
ECOMAC GEBRAUCHTMASCHINEN GMBH, Neutraubling
EVOGUARD GMBH, Nittenau
GERNEP GMBH ETIKETTIERTECHNIK, Barbing
HST MASCHINENBAU GMBH, Dassow
KIC KRONES INTERNATIONALE COOPERATIONS-GESELLSCHAFT MBH, Neutraubling
MILKRON GMBH, Laatzen
SYSTEMS LOGISTICS GMBH, Wackersdorf

The companies are directly and/or indirectly affiliated with KRONES AG by a profit transfer agreement.

Members of the **Supervisory Board** and the **Executive Board**

Pursuant to Section 8 (1) of the articles of association, eight members of the Supervisory Board are elected by the shareholders in accordance with the German Stock Corporation Act (Sections 96 (1) and 101). Eight members are elected by the employees pursuant to Section 1 (1) and Section 7 (1) Sentence 1 Number 1 of the Codetermination Act.

Supervisory Board

Volker Kronseder
Chairman of the Supervisory Board
* UNIVERSITÄTSKLINIKUM REGENSBURG
* WIRTSCHAFTSBEIRAT BAYERISCHE LANDESBANK

Werner Schrödl**
Deputy Chairman of the Supervisory Board
Chairman of the Group Empoyees' Council
Chairman of the Composite Empoyees' Council
* Verwaltungsrat der BAYERISCHEN BETRIEBSKRANKENKASSEN

Dr. Verena Di Pasquale**
Deputy Chairperson of DGB BAYERN (the German Trade Union Confederation in Bavaria)

Robert Friedmann
Spokesman for the central managing board of the WÜRTH GROUP
* ZF FRIEDRICHSHAFEN AG

Klaus Gerlach**
Head of Central International Operations and Services

Oliver Grober**
Chairman of the Employees' Council, Rosenheim

Thomas Hiltl**
Chairman of the Employees' Council, Nittenau

Norman Kronseder
Farmer and forester
* BAYERISCHE FUTTERSAATBAU GMBH

Professor Dr. jur. Susanne Nonnast
Professor at Ostbayerische Technische Hochschule (OTH) Regensburg

Beate Eva Maria Pöpperl**
Independent Member of the Employees' Council

Norbert Samhammer
Chief executive of SAMHAMMER HOLDING GMBH
*SAMHAMMER AG

Petra Schadeberg-Herrmann
Managing partner
KROMBACHER BRAUEREI BERNHARD SCHADEBERG GMBH & CO. KG, KROMBACHER FINANCE GMBH, SCHAWEI GMBH, DIVERSUM HOLDING GMBH & CO. KG

Jürgen Scholz**
First authorised representative IG METALL administrative office, Regensburg
* INFINEON TECHNOLOGIES AG

Hans-Jürgen Thaus
* MASCHINENFABRIK REINHAUSEN GMBH
* HAWE HYDRAULIK SE, ASCHHEIM/MÜNCHEN (bis 27.06.2019)

Josef Weitzer**
Deputy Group Employees' Council Chairman
Deputy Composite Employees' Council Chairman
Chairman of the Employees', Neutraubling
* SPARKASSE REGENSBURG

Matthias Winkler
Managing partner at WW+ KN STEUERBERATUNGS-GESELLSCHAFT MBH

Executive Board

Christoph Klenk
CEO
Intralogistics
Process Technology

Michael Andersen
until 24 July 2019
CFO
Process Technology

Norbert Broger
since 1 January 2020
CFO

Thomas Ricker
CSO

Markus Tischer
International Operations and Services
Digitalisation

Ralf Goldbrunner
Bottling and Packaging Equipment
Compact Class

* Other Supervisory Board seats held, pursuant to Section 125 (1) Sentence 5 of the German Stock Corporation Act
** Elected by the employees
In addition, each of the group companies is the responsibility of two members of the Executive Board.

Proposal for the appropriation of **KRONES AG's earnings available for distribution**

KRONES AG had earnings available for distribution as of 31 December 2019 of € 258,681,143.94.

We propose to the annual general meeting on 18 May 2020 that this amount be used as follows:

Proposal for the appropriation of earnings available for distribution	€
Dividend of €0.75 per share (for 31,593,072 shares)	23,694,804
Amount brought forward to new account	234,986,339.94

Neutraubling, 12. March 2020

KRONES AG

The Executive Board

Christoph Klenk
CEO

Norbert Broger

Thomas Ricker

Markus Tischer

Ralf Goldbrunner

6

OTHER INFORMATION

Independent auditor's report

To KRONES Aktiengesellschaft

Report on the audit of the consolidated financial statements and of the group management report

Opinions

We have audited the consolidated financial statements of KRONES Aktiengesellschaft, Neutraubling and its subsidiaries (the Group), which comprise the consolidated statement of profit and loss and the consolidated statement of comprehensive income for the fiscal year from 1 January 2019 to 31 December 2019, the consolidated statement of financial position as of 31 December 2019, the consolidated statement of changes in equity and the consolidated statement of cash flows for the fiscal year from 1 January 2019 to 31 December 2019, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of KRONES Aktiengesellschaft for the fiscal year from 1 January 2019 to 31 December 2019. In accordance with the German legal requirements, we have not audited the content of the responsibility statement included in section "Responsibility statement" of the group management report. In accordance with the German legal requirements, we have not audited the content of the group statement on corporate governance, which was published on the Company's website and referred to in the "Dependency report" section of the group management report. We have not audited the following information not typical of management reports, which is part of other information:

- Section "Fundamental information about the group", sub-section "State-of-the-art production: The new KRONES control cabinet production facility"
- Section "Fundamental information about the group", sub-section "A selection of our innovations"

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB ["Handelsgesetzbuch": German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as at 31 December 2019 and of its financial performance for the fiscal year from 1 January 2019 to 31 December 2019, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the group management report does not cover the content of the aforementioned responsibility statement and the group statement on corporate governance as well as the information not typical of management reports referred to above.

Pursuant to Sec. 322 (3) Sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Sec. 317 HGB and the EU Audit Regulation (No 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Art. 10 (2) f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Art. 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Key audit matters in the audit of the consolidated financial statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the fiscal year from 1 January to 31 December 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon; we do not provide a separate opinion on these matters.

Below, we describe what we consider to be the key audit matters:

1. Revenue recognition for customer-specific construction contracts

Reasons why the matter was determined to be a key audit matter

The major part of group revenue is generated from customer projects involving machinery and lines for product filling and beverage production. The performance comprising the design and manufacture of machinery and its installation and commissioning on site is considered as a single performance obligation. As contracts for this machinery and lines are customer-specific, the Group's performance creates an asset that does not have an alternative use to the Group. The Group has a legal right to payment for the performance completed to date, including an appropriate margin. In accordance with IFRS 15, revenue is therefore recognized over time on the basis of the percentage of completion method. The percentage of completion is calculated on the basis of the costs incurred as of the reporting date in relation to the expected total costs of the respective project. There is a particular risk of error when estimating total costs. The significance of revenue for the consolidated financial statements, the judgment involved in estimating total costs and the fact that revenue is one of the financial performance indicators for the group in terms of corporate management and forecasts meant that the recognition of revenue as of the reporting date was a key audit matter.

Auditor's response

During the reporting period, we performed tests to assess the design and operating effectiveness of the significant controls implemented by the executive directors in the area of reporting of costs accrued and the estimate of total contract costs. In this context, we tested both transaction-level controls and entity-level controls, such as regular review meetings.

For a sample of projects, we obtained an overview of the content of the contracts and the status of the respective fulfillment of contracts and analyzed the actual costs incurred and the total costs over the period of the project's progress. We also reviewed the analysis of planning variance of total costs of projects over time performed by the Executive Board in terms of mathematical accuracy and obtained explanations for deviations on a sample basis. Furthermore, we compared the transaction prices used with their applicable contractual bases.

Our audit procedures did not lead to any reservations relating to the recognition of revenue allocated to the period.

Reference to related disclosures

The disclosures on the principles of revenue recognition are contained in section "General disclosures/Revenue" of the notes to the consolidated financial statements.

2. Impairment testing of goodwill

Reasons why the matter was determined to be a key audit matter

The Group performs an impairment test to test impairment of goodwill at least once each year. A complex calculation model is used for the test, which particularly involves a number of assumptions subject to judgment and values derived therefrom. This also includes the expected development of business and earnings, the assumed long-term growth rates and the discount rates applied.

Against the background of the underlying complexity of impairment tests as well as the judgment exercised during valuation and the associated high risk for accounting misstatement, impairment testing of goodwill, which is a significant item of the statement of financial position in the consolidated financial statements, was a key audit matter.

Auditor's response

During the audit of the impairment testing of goodwill, we used a substantive audit approach.

We involved internal valuation specialists to verify the DCF models applied in terms of clerical accuracy and methods used and investigated whether these were calculated using the relevant financial reporting standards in accordance with IAS 36. We assessed the derivation of the weighted average cost of capital (WACC) by evaluating the beta factor used for the benchmark companies involved and comparing the interest rates for equity and liabilities with available market data.

We also analyzed the corporate planning applied for impairment testing of goodwill by comparing the actual earnings recorded in the past with current developments in the business figures. For the appraisal of the underlying corporate planning, we also obtained explanations related to the estimates and assumptions on growth and business development.

Our audit procedures did not lead to any reservations regarding the measurement of goodwill.

Reference to related disclosures

For more information on the impairment tests performed and underlying assumptions, please refer to the disclosures in section "Notes to the consolidated statement of financial position/1 Intangible assets" of the notes to the consolidated financial statements.

Other information

The Supervisory Board is responsible for the Report of the Supervisory Board. The executive directors and the Supervisory Board are responsible for the Corporate Governance Report and the Group Corporate Governance Declaration. In all other respects, the executive directors are responsible for the other information.

Other information comprises the abovementioned responsibility statement as well as the group statement on corporate governance, the information not typical of management reports in the group management report, the combined, separate group non-financial report published in the internet and also other components designated for the annual report, of which we received a version prior to issuing this auditor's report, particularly

- Section "Highlights 2019"
- Chapter 1 "To our shareholders"
- Chapter 3 "Corporate governance"
- Chapter 6 "Other information"

but not the consolidated financial statements, not the disclosures in the group management report included in the audit of content and not our auditor's report.

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the executive directors and the Supervisory Board for the consolidated financial statements and the group management report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB, and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sec. 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. 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 consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, 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 opinions. 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 of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report 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 these systems;
- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures;

- Conclude on the appropriateness of the executive directors' 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 ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. 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 to cease to be able to continue as a going concern;
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB;
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions;
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides;
- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

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 the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and where applicable, the 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 consolidated 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.

Other legal and regulatory requirements

Further information pursuant to Art. 10 of the EU Audit Regulation

We were elected as group auditor by the annual general meeting on 5 June 2019. We were engaged by the Supervisory Board on 5 June 2019. We have been the group auditor of KRONES Aktiengesellschaft since fiscal year 2019.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Art. 11 of the EU Audit Regulation (long-form audit report).

German Public Auditor responsible for the engagement

The German Public Auditor responsible for the engagement is Udo Schuberth.

Nuremberg, 12 March 2020

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Schuberth Wirtschaftsprüfer [German Public Auditor]	Timphaus-Möller Wirtschaftsprüferin [German Public Auditor]

Commercial glossary

Cash flow	All inflows and outflows of cash and cash equivalents during a period.
Corporate governance	Framework for responsible corporate management and supervision that is oriented toward sustainability.
Depreciation and amortisation	Non-cash expenses that represent the cost of current and non-current assets being used over time.
EBIT	Earnings before interest and taxes.
EBITDA	Earnings before interest, taxes, depreciation and amortisation.
EBITDA margin	Ratio of earnings before interest, taxes, depreciation and amortisation to revenue
EBT	Earnings before taxes.
EBT margin	Ratio of earnings before taxes to revenue.
Equity	Funds made available to the company by the owners by way of contribution and/or investment, plus retained earnings.
Free cash flow	Measure of financial performance calculated as the cash flow from operating activities minus cash flow from investing activities. It is the cash available to pay dividends, reduce debt, or to be retained.
IFRS	International Financial Reporting Standards. Accounting standards issued by the International Accounting Standards Board (IASB) that are harmonised and applied internationally.
Net cash and equivalents	Cash and highly liquid securities under current assets less liabilities to banks.
Return on equity before taxes	Ratio of earnings before taxes to average equity.
ROCE	Ratio of EBIT to average capital employed (total assets less interest-free liabilities and interest-free other provisions).
Total debt	Combined term for the provisions, liabilities, and deferred income stated on the liabilities side of the balance sheet.
Working capital	Working capital is calculated as follows: (inventories + trade receivables + contract assets) – (trade payables + contract liabilities).
Working capital to revenue	The ratio of working capital to revenue indicates how much capital is needed to finance revenue generation.

Technical glossary

Aseptic beverage filling	Germ-free filling of beverages at ambient temperature.
Craft brewer/craft beer	Small brewery, independent of any large corporation, producing artisan (craft) beer.
Brewhouse	In the brewhouse, the raw materials malt, hops, and water are processed in several stages to produce beer.
Digital printing	Printing process in which data are transferred directly from a computer onto an object, without a print template first being generated. Digital printing is far more flexible and significantly more cost-effective on smaller print runs (batches) than conventional printing and labelling processes.
Energy drink	A beverage that acts as a stimulant. The main ingredients are sugar and caffeine.
enviro	KRONES' sustainability programme. enviro was certified by TÜV SÜD in 2009. This independent certification enables KRONES to award the enviro seal for efficient use of energy and media and environmental friendliness for its machines and lines. All new developments at KRONES are aligned with the criteria of our enviro sustainability programme.
Intralogistics	The internal flow of materials and goods within a company, including warehouse, order-picking, and conveyance systems.
PET	Polyethylene terephthalate, a thermoplastic material from the polyester family used for producing beverage bottles.
Recyclate	Product obtained in a recycling process.
Soft drinks	Non-alcoholic beverages, usually carbonated.
Stretch blow-moulding	Process for the manufacture of hollow plastic products such as PET bottles.

Key figures for the KRONES Group 2015 – 2019

		2019	2018	2017	2016	2015
Revenue						
Revenue	€ million	3,959	3,854	3,691	3,391	3,174
Germany	€ million	468	362	388	354	382
Outside Germany	€ million	3,491	3,492	3,303	3,037	2,792
Export share	%	88	91	89	90	88
Earnings						
Earnings before taxes (EBT)	€ million	42	204	259	238	223
Consolidated net income	€ million	9	151	187	169	156
Earnings per share	€	0.30	4.78	5.97	5.40	4.98
Assets and capital structure						
Non-current assets	€ million	1,154	1,010	882	799	697
of which fixed assets	€ million	1,070	936	797	725	646
Current assets	€ million	2,165	2,312	2,158	2,272	2,010
of which cash and equivalents	€ million	110	219	182	369	365
Equity	€ million	1,370	1,433	1,330	1,226	1,111
Total debt	€ million	1,949	1,888	1,710	1,845	1,596
Non-current liabilities	€ million	452	359	314	308	278
Current liabilities	€ million	1,497	1,529	1,396	1,537	1,318
Total assets	€ million	3,319	3,321	3,040	3,071	2,707
Cash flow/capital expenditure						
Free cash flow	€ million	−94	121	−151	49	71
Capital expenditure for PP&E and intangible assets	€ million	169	179	134	111	103
Depreciation, amortisation and impairments	€ million	183	103	95	93	88
Net cash position (cash and cash equivalents less debt)	€ million	38	215	157	369	365
Profitability ratios						
EBT margin	%	1.1	5.3	7.0	7.0	7.0
EBITDA margin	%	5.7	7.9	9.2	9.5	9.6
Working capital to revenue*	%	26.9	27.3	27.3	26.7	24.6
ROCE	%	2.7	12.8	16.6	17.0	17.7
Employees (at 31 December)		17,353	16,545	15,299	14,443	13,346
Germany		10,733	10,887	10,366	10,061	9,767
Outside Germany		6,620	5,658	4,933	4,382	3,579
Dividend						
Dividend per share	€	0.75**	1.70	1.70	1.55	1.45

* Average over 4 quarters ** As per proposal for appropriation of earnings available for distribution

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This English language report is a translation of the original German KRONES Konzern Geschäftsbericht 2019. In case of discrepancies the German text shall prevail.

We would be happy to mail you a copy of the original German version of this Annual Report on request. You can also find it in the Investor Relations section at krones.com.

Financial calendar

29 April 2020	Quarterly statement for the period ended 31 March 2020
18 May 2020	Annual general meeting
30 July 2020	Interim report for the period ended 30 June 2020
29 October 2020	Quarterly statement for the period ended 30 September 2020

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