Consolidated Financial Statements

Balance Sheet

Assets

€ thousands	Notes	31 Dec. 2018	31 Dec. 2017
Non-current assets			
Intangible assets	1	91,089	108,054
Property, plant and equipment	2	496,659	506,214
Non-current financial assets	3	1,773	6,132
Other non-financial assets	4	2,914	–
Investments accounted for using the equity method	5	23,855	22,185
Deferred tax assets	18	80,391	91,736
		696,681	**734,321**
Current assets			
Inventories	6	544,430	461,877
Contract assets	7	74,499	–
Trade receivables	7	518,116	613,311
Other financial assets	7	103,388	116,970
Other non-financial assets	7	49,504	37,402
Cash and cash equivalents	8	255,545	289,535
		1,545,482	**1,519,095**
		2,242,163	**2,253,416**

Equity and Liabilities

€ thousands	Notes	31 Dec. 2018	31 Dec. 2017
Equity	9		
Subscribed capital		44,772	44,772
Capital reserve		66,663	66,663
Revenue reserves		577,756	611,855
Equity attributable to shareholders of KSB SE & Co. KGaA		689,191	723,290
Non-controlling interests		167,600	162,108
		856,791	**885,398**
Non-current liabilities			
Deferred tax liabilities	18	10,252	14,703
Provisions for employee benefits	10	578,640	606,875
Other provisions	10	1,377	1,397
Financial liabilities	11	30,099	54,333
		620,368	**677,308**
Current liabilities			
Provisions for employee benefits	10	9,287	8,033*
Other provisions	10	83,557	68,806*
Financial liabilities	11	48,777	21,960
Contract liabilities	11	157,389	–
Trade payables	11	270,212	241,630*
Other financial liabilities	11	32,767	81,467
Other non-financial liabilities	11	154,689	263,600*
Income tax liabilities	11	8,326	5,214
		765,004	**690,710**
		2,242,163	**2,253,416**

* Restated compared with presentation in the 2017 Annual Report.
Further information is provided in the Notes to the consolidated financial statements.

Statement of Comprehensive Income

Income statement

€ thousands	Notes	2018	2017
Sales revenue	12	**2,245,948**	**2,204,958**
Changes in inventories		22,554	– 49
Work performed and capitalised		7,332	5,588
Total output of operations		**2,275,834**	**2,210,497**
Other income	13	33,050	69,170
Cost of materials	14	– 934,545	– 887,820
Staff costs	15	– 765,462	– 796,732
Depreciation and amortisation	1, 2	– 104,491	– 70,593
Other expenses	16	– 416,869	– 392,414
Other taxes		– 12,815	– 15,753
		74,702	**116,355**
Finance income	17	4,893	6,417
Finance expense	17	– 16,544	– 20,106
Income from / expense to investments accounted for using the equity method	17	2,510	1,514
		– 9,141	**– 12,175**
Earnings before income tax		**65,561**	**104,180**
Taxes on income	18	– 41,644	– 52,076
Earnings after income tax		**23,917**	**52,104**
Attributable to:			
Non-controlling interests	19	12,618	14,923
Shareholders of KSB SE & Co. KGaA		**11,299**	**37,181**
Diluted and basic earnings per ordinary share (€)	20	6.26	21.10
Diluted and basic earnings per preference share (€)	20	6.64	21.36

Statement of income and expense recognised in equity

€ thousands	Notes	2018	2017*
Earnings after income tax		**23,917**	52,104
Remeasurement of defined benefit plans	10	– 10,736	9,328
Taxes on income		3,341	– 3,843
Expense and income recognised directly in equity and not reclassified to profit or loss in subsequent periods		**– 7,395**	**5,485**
Currency translation differences		– 13,276	– 54,238
Attributable to: Expense and income recognised directly in equity attributable to investments accounted for using the equity method		451	– 2,225
Changes in the fair value of financial instruments: Hedging reserve		– 5,571	8,804*
Taxes on income		1,665	– 2,737*
Attributable to: Expense and income recognised directly in equity attributable to investments accounted for using the equity method		– 37	–
Changes in the fair value of financial instruments: Hedging cost reserve		– 53	– 1,601*
Taxes on income		18	480*
Expense and income recognised directly in equity and reclassified to profit or loss in subsequent periods		**– 17,217**	**– 49,292**
Other comprehensive income		**– 24,612**	**– 43,807**
Total comprehensive income		**– 695**	**8,297**
Attributable to:			
Non-controlling interests		12,983	– 62
Shareholders of KSB SE & Co. KGaA		**– 13,678**	**8,359**

Further information is provided in the Notes to the consolidated financial statements. * Prior-year value restated under IFRS 9

Statement of Changes in Equity

€ thousands	Subscribed capital of KSB SE & Co. KGaA	Capital reserve of KSB SE & Co. KGaA
1 Jan. 2017	44,772	66,663
Other comprehensive income	–	–
Earnings after income tax	–	–
Total comprehensive income	**–**	**–**
Dividends paid	–	–
Capital increase / decrease	–	–
Change in consolidated Group / Step acquisitions	–	–
Other	–	–
31 Dec. 2017	**44,772**	**66,663**

€ thousands	Subscribed capital of KSB SE & Co. KGaA	Capital reserve of KSB SE & Co. KGaA
31 Dec. 2017	44,772	66,663
Impact of transition to IFRS 9 and IFRS 15	–	–
1 Jan. 2018 (restated under IFRS 9 and IFRS 15)	**44,772**	**66,663**
Other comprehensive income	–	–
Earnings after income tax	–	–
Total comprehensive income	**–**	**–**
Dividends paid	–	–
Capital increase / decrease	–	–
Change in consolidated Group / Step acquisitions	–	–
Other	–	–
31 Dec. 2018	**44,772**	**66,663**

Accumulated currency translation differences (€ thousands)	Equity attributable to shareholders of KSB SE & Co. KGaA	Non-controlling interests	Total equity
Balance at 1 Jan. 2017	– 44,507	– 5,264	**– 49,771**
Change in 2017	– 39,262	– 14,881	**– 54,143**
31 Dec. 2017	**– 83,769**	**– 20,145**	**– 103,914**
Balance at 1 Jan. 2018	– 83,769	– 20,145	**– 103,914**
Change in 2018	– 14,501	652	**– 13,849**
31 Dec. 2018	**– 98,270**	**– 19,493**	**– 117,763**

Revenue reserves							
	Other comprehensive income						
Other revenue reserves	Currency translation differences	Changes in the fair value of financial instruments: Hedging reserve*	Changes in the fair value of financial instruments: Hedging cost reserve*	Remeasurement of defined benefit plans	Equity attributable to shareholders of KSB SE & Co. KGaA	Non-controlling interests	Total equity
836,530	– 44,507	– 5,181	582	– 173,186	725,673	164,661	**890,334**
–	– 39,357	6,157	– 1,121	5,499	– 28,822	– 14,985	**– 43,807**
37,181	–	–		–	37,181	14,923	**52,104**
37,181	**– 39,357**	**6,157**	**– 1,121**	**5,499**	**8,359**	**– 62**	**8,297**
– 9,857	–	–	–	–	– 9,857	– 2,491	**– 12,348**
–	–	–	–	–	–	–	**–**
– 980	95	–	–	–	– 885	–	**– 885**
–	–	–	–	–	–	–	**–**
862,874	**– 83,769**	**976**	**– 539**	**– 167,687**	**723,290**	**162,108**	**885,398**

Revenue reserves							
	Other comprehensive income						
Other revenue reserves	Currency translation differences	Changes in the fair value of financial instruments: Hedging reserve*	Changes in the fair value of financial instruments: Hedging cost reserve*	Remeasurement of defined benefit plans	Equity attributable to shareholders of KSB SE & Co. KGaA	Non-controlling interests	Total equity
862,874	– 83,769	976	– 539	– 167,687	723,290	162,108	**885,398**
– 9,218	–	–	–	–	– 9,218	– 7	**– 9,225**
853,656	**– 83,769**	**976**	**– 539**	**– 167,687**	**714,072**	**162,101**	**876,173**
–	– 13,686	– 3,906	– 35	– 7,350	– 24,977	365	**– 24,612**
11,299	–	–	–	–	11,299	12,618	**23,917**
11,299	**– 13,686**	**– 3,906**	**– 35**	**– 7,350**	**– 13,678**	**12,983**	**– 695**
– 13,360	–	–	–	–	– 13,360	– 2,506	**– 15,866**
–	–	–	–	–	–	–	**–**
3,032	– 815	–	–	– 80	2,137	– 4,978	**– 2,841**
20	–	–	–	–	20	–	**20**
854,647	**– 98,270**	**– 2,930**	**– 574**	**– 175,117**	**689,191**	**167,600**	**856,791**

* Prior-year value restated under IFRS 9

Statement of Cash Flows

€ thousands	2018	2017
Earnings after income tax	23,917	52,104
Depreciation and amortisation / Write-ups	104,491	71,445
Increase / decrease in non-current provisions	– 41,305	9,947
Gain / loss on disposal of fixed assets	– 957	– 9,150
Other non-cash expenses / income	– 455	29
Cash flow	**85,691**	**124,375**
Increase / Decrease in inventories	– 50,834	– 15,725
Increase / Decrease in trade receivables and other assets	– 7,522	– 21,001
Increase / Decrease in contract assets	– 6,606	–
Increase / Decrease in current provisions	10,320	8,231
Increase / Decrease in advances received from customers	–	15,536
Increase / Decrease in liabilities (excluding financial liabilities)	35,997	10,535
Increase / Decrease in contract liabilities	– 4,433	–
Other non-cash expenses (operating)	– 1,260	– 1,260
	– 24,338	**– 3,684**
Cash flows from operating activities	**61,353**	**120,691**
Proceeds from disposal of intangible assets	1,778	4
Payments to acquire intangible assets	– 13,932	– 11,941
Proceeds from disposal of property, plant and equipment	2,263	20,224
Payments to acquire property, plant and equipment	– 69,203	– 88,526
Proceeds from disposal of non-current financial assets	6	218
Payments to acquire non-current financial assets	– 843	– 819
Payments to acquire consolidated companies	– 5,650	–
Proceeds from / Payments for investments in Group companies that are not fully consolidated	681	295
Proceeds from commercial papers	29,979	74,820
Payments for commercial papers	– 19,990	– 29,979
Proceeds from term deposits (maturity of more than 3 and up to 12 months)	596	55,825
Payments for term deposits (maturity of more than 3 and up to 12 months)	– 16,180	– 28,447
Other non-cash expenses / income	–	165
Cash flows from investing activities	**– 90,495**	**– 8,161**
Dividends paid for prior year – Shareholders of KSB SE & Co. KGaA (Notes No. 9)	– 13,360	– 9,857
Dividends paid for prior year – Non-controlling interests	– 2,506	– 2,491
Payments for loan against borrower's note	–	– 74,500
Proceeds from financial liabilities	23,702	8,671
Payments for financial liabilities	– 15,757	– 27,821
Payments to acquire non-controlling interests	– 1,512	–
Cash flows from financing activities	**– 9,433**	**– 105,998**
Changes in cash and cash equivalents	– 38,575	6,532
Effects of exchange rate changes on cash and cash equivalents	4,585	– 6,828
Effects of changes in consolidated Group	–	948
Cash and cash equivalents at beginning of period	289,535	288,883
Cash and cash equivalents at end of period	**255,545**	**289,535**

Cash flows from operating activities include cash flows from interest received amounting to € 4,618 thousand (previous year: € 6,139 thousand) and cash flows from income tax totalling € – 23,780 thousand (previous year: € – 40,193 thousand). Cash flows from investing activities for the 2018 financial year include cash flows from dividends received of € 1,029 thousand (previous year: € 1,654 thousand). Cash flows from financing activities include cash flows from interest expense of € – 4,888 thousand (previous year: € – 8,649 thousand).

Further information is presented in Section VII. Statement of Cash Flows in the Notes to the consolidated financial statements.

Notes

I. GENERAL INFORMATION ON THE GROUP

KSB SE & Co. KGaA, Frankenthal / Pfalz, Germany, is a capital market-oriented partnership limited by shares [*Kommanditgesellschaft auf Aktien*] under the law of the Federal Republic of Germany. The company is registered with the *Handelsregister* [German Commercial Register] of the *Amtsgericht* [Local Court] Ludwigshafen am Rhein, registration No. HRB 65657, and has its registered office in Frankenthal / Pfalz, Germany. By entry in the Commercial Register on 17 January 2018, KSB Aktiengesellschaft changed its legal form to SE & Co. KGaA. The general partner is KSB Management SE, a European public limited company. The shares in this company are wholly owned (100 %) by Klein, Schanzlin & Becker GmbH, a subsidiary of the non-profit KSB Stiftung [KSB Foundation] and the non-profit Kühborth-Stiftung GmbH [Kühborth Foundation]. KSB SE & Co. KGaA and thus the KSB Group are managed via KSB Management SE, which has four Managing Directors and a five-member Administrative Board.

KSB SE & Co. KGaA is the ultimate and immediate parent company whose consolidated financial statements include the single-entity financial statements of KSB SE & Co. KGaA. The consolidated financial statements of KSB SE & Co. KGaA prepared in accordance with International Financial Reporting Standards as adopted by the EU are published in the *Bundesanzeiger* [German Federal Gazette].

The KSB Group is a global supplier of high-quality pumps, valves and related systems and also provides a wide range of support services to users of these products. The Group's operations are divided into three segments: Pumps, Valves and Service.

Basis of preparation of the consolidated financial statements

The accompanying consolidated financial statements of KSB SE & Co. KGaA were prepared in accordance with the International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU) and the additional requirements of German commercial law under Section 315e(1) HGB [*Handelsgesetzbuch* – German Commercial Code]. To do so, the Conceptual Framework and all Standards applicable at the reporting date and adopted by the European Commission for use in the EU that are of relevance to the KSB Group as well as the interpretations of the IFRS Interpretations Committee were applied. For the purposes of this document, the term IFRSs includes applicable International Accounting Standards (IASs). The consolidated financial statements of KSB SE & Co. KGaA therefore meet the requirements of the IFRSs as applicable in the EU. The consolidated financial statements were prepared on a going concern basis in accordance with IAS 1.25. They were prepared using the historical cost convention, with the exception of measurement at market value for available-for-sale financial assets and measurement at fair value through profit and loss for financial assets and liabilities (including derivatives). Investments in joint ventures and associates were measured using the equity method.

The financial year of the companies consolidated is the calendar year.

The income statement as part of the statement of comprehensive income has been prepared using the nature of expense method.

All material items of the balance sheet and the income statement are presented separately and explained in these Notes.

The main accounting policies used to prepare the consolidated financial statements are presented below. The policies described were applied consistently for the reporting periods presented unless stated otherwise.

The consolidated financial statements and the group management report, as well as the annual financial statements and management report of the Group's parent company, are submitted to and published in the *Bundesanzeiger* [German Federal Gazette].

The present consolidated financial statements, due to be approved by the Supervisory Board on 20 March 2019, will be approved for publication on 28 March 2019 by the Managing Directors of KSB Management SE.

New accounting principles

a) Accounting principles applied for the first time in the 2018 financial year

The following new and revised Standards issued by the International Accounting Standards Board (IASB) were required to be applied for the first time in financial year 2018:

In July 2014, the IASB published **IFRS 9 Financial Instruments** as the successor to IFRS 39 Financial Instruments: Recognition and Measurement. IFRS 9 specifies new rules for classifying and measuring financial instruments, new rules regarding the impairment of financial assets and also revised rules for recognising hedges. The modified retrospective method was used for application as at the date of first-time adoption. The resultant effects are presented in Section III. Accounting Policies in the "Impact of the introduction of new accounting standards" sub-section. Under the transitional provisions, the option of presenting the comparative information for the 2017 financial year in accordance with IAS 39 was used.

In May 2014, the IASB published the new IFRS 15 Revenue from Contracts with Customers standard. The new accounting standard defines principles that an entity should apply to report on the nature, amount, timing and uncertainty of revenue and cash flows arising from a contract with a customer. Sales revenue is recognised when the customer has control over the agreed goods and services and can derive benefits from these. It supersedes the following previous Standards and Interpretations: IAS 11 Construction Contracts, IAS 18 Revenue, IFRIC 13 Customer Loyalty Programmes, IFRIC 15 Agreements for the Construction of Real Estate, IFRIC 18 Transfers of Assets from Customers and SIC-31 Revenue – Barter Transactions Involving Advertising Services.

IFRS 15 was applied for the first time on 1 January 2018 using the modified retrospective method. Accordingly, the cumulative impact on earnings from the change was recognised at the beginning of the reporting period in revenue reserves. The comparative figures for the 2017 financial year were not restated. In addition, the option of simplified first-time adoption was used and IFRS 15 was only applied to contracts that had not yet been complete on 1 January 2018. The resultant effects are presented in Section III. Accounting Policies in the "Impact of the introduction of new accounting standards" sub-section.

Three standards were amended through the **Annual Improvements to IFRS Standards 2014 – 2016 Cycle**. The changes to IFRS 12 Disclosure of Interests in Other Entities have had to be applied since 1 January 2017. There were further revisions to IFRS 1 First-time Adoption of IFRS and IAS 28 Investments in Associates and Joint Ventures which have had to be applied since 1 January 2018. The short-term exemptions in paragraphs E3–E7 of IFRS 1 were deleted, as they had served their intended purpose. IAS 28 clarified that on initial recognition there is an option, for every investment in an associate or joint venture on an individual investment basis, to measure an investment in an associate or joint venture held by an entity that is a venture capital organisation or another qualifying entity at fair value through profit or loss.

The amendments to **IFRS 2 Share-based Payment** relate to the accounting treatment of cash-settled share-based payment transactions. Some of the new provisions concern the calculation of the fair value of obligations resulting from share-based payments.

The changes to **IFRS 4 Insurance Contracts** aim to reduce the impact of the differing start dates for IFRS 9 Financial Instruments and the successor standard to IFRS 4, above all for entities with comprehensive insurance activities.

IFRIC 22 Foreign Currency Transactions and Advance Consideration clarifies the exchange rate to be used on initial recognition for the conversion of foreign currency transactions that include the receipt or payment of advance consideration.

IAS 40 Investment Property has been amended in order to clarify that an entity may only transfer a property to or out of its investment property portfolio if there is evidence of a change of use.

The above listed new or revised accounting Standards and Interpretations adopted for the first time in the reporting year had no or no material impact on the Group's net assets, financial position and results of operations, except for IFRS 9 and IFRS 15.

b) Accounting principles that have been published but that are not yet mandatory

The following Standards and revised Standards issued by the IFRS Interpretations Committee (IFRIC) were not yet mandatory and were not applied in the 2018 financial year:
→ IFRS announcements

IFRS announcements

	First-time adoption in the EU
Changes to **IAS 28** Investments in Associates and Joint Ventures and **IFRS 10** Consolidated Financial Statements	1 Jan. 2019
IFRS 16 Leases	1 Jan. 2019
IFRIC 23 Uncertainty over Income Tax Treatment	1 Jan. 2019
Changes to **IAS 19** Employee Benefits	1 Jan. 2019
Improvements to the International Financial Reporting Standards (2015 to 2017)	1 Jan. 2019
Changes to **IFRS 9** Financial Instruments	1 Jan. 2019
Amendments to the cross-references in the **Conceptual Framework** in IFRS	1 Jan. 2020
Revision of **IFRS 3** Business Combinations	1 Jan. 2020
Changes to **IAS 1** Presentation of Financial Statements and **IAS 8** Accounting Policies	1 Jan. 2020
IFRS 17 Insurance Contracts	1 Jan. 2021

As a matter of principle, the new or revised Standards or Interpretations shown in the table have not been adopted early. Apart from IFRS 16 Leases, no or no material impact on the net assets, financial position and results of operations is expected from the IFRS announcements.

IFRS 16 Leases was published in January 2016 and must be applied to financial years that begin on or after 1 January 2019. The new lease standard replaces IAS 17 Leases, IFRIC 4 Determining Whether an Arrangement Contains a Lease, SIC 15 Operating Leases – Incentives and SIC 27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.

KSB will be applying IFRS 16 from 1 January 2019. The standard will be implemented using the modified retrospective method for first-time adoption.

IFRS 16 specifies the new rules on recognising, measuring, presenting and disclosing leases on a more detailed basis compared with IAS 17. The classification into operating and finance leases shall no longer apply to lessees in future. Under IFRS 16, all leases must be presented by the lessee in the balance sheet in the form of a right-of-use asset (right to use the leased item) and a corresponding lease liability for the payment of lease instalments. The interest expense for the lease liability and depreciation / amortisation expense for the right-of-use asset must be recognised separately.

Under IFRS 16, lessees have the option of not capitalising short-term leases (leases with a lease term of less than twelve months) and leases with a low-value underlying asset. If this option is used, the lease will be accounted for in a comparable way to that previously stipulated under IAS 17 for operating leases. KSB will be making use of these options. This approach was the basis for the expected impact resulting from the transition as at 1 January 2019, as presented in the following. It has also been taken into account that as part of the transition, KSB will exercise the option for existing leases of recognising the right-of-use assets at the amount of the lease liabilities. For the purposes of determining fair value in these cases, no initial direct costs, such as payable commissions, were included in the measurement of the expected carrying amount of the right-of-use assets as at 1 January 2019.

For subsequent accounting purposes, lessees must remeasure the lease liability to reflect specific events (such as a change in the lease term or change in future lease payments arising from changes in the index or interest rate applied to determine the lease payments). Lessees will in general recognise the amount of the remeasured lease liability as an adjustment to the right-of-use asset.

KSB has reviewed all of the Group's existing leases for the specifications of IFRS 16 and analysed the likely impact of the introduction of IFRS 16 on the Group's net assets, financial position and result of operations for the 2019 financial year. The standard is deemed to have a significant impact on operating lease agreements in force in which KSB is the lessee.

KSB expects to capitalise lease liabilities of around € 43 million as at 1 January 2019 and, in line with the envisaged use of the option permitted, right-of-use assets of the same amount, with potential variations of +/−5 % percentage points to be taken into account for each item. The balance sheet total will accordingly increase by some € 43 million through the recognition of right-of-use assets under assets and the recognition of lease liabilities under equity and liabilities. Equity will not have to be restated at the transition point due to the chosen approach of recognising lease liabilities and right-of-use assets at the same amount.

No material effect is expected on EBIT from the amended presentation in the income statement in the form of interest expenses from lease liabilities and depreciation/amortisation of the right-of-use assets compared with the expenses for operating leases shown under IAS 17.

The cash flows from operating leases were part of cash flows from operating activities in the year under review. Upon first-time adoption of IFRS 16 and the related capitalisation of these leases, the amortisation component of cash flow from financing activities will fall, while the interest portion in cash flow from operating activities will remain the same.

The new rules for lessors from IFRS 16 have minor significance for KSB and will not have any material effect on the consolidated financial statements.

II. BASIS OF CONSOLIDATION

Consolidated Group

In addition to KSB SE & Co. KGaA, 9 German and 74 foreign companies (previous year: 9 German and 73 foreign companies) were fully consolidated. A majority interest is held, either directly or indirectly, in the voting power of these subsidiaries which the KSB Group has the option to control under IFRS 10.

Subsidiaries are companies controlled by the Group. The Group controls a company if it is exposed, or has rights, to variable returns from its involvement with the company and has the ability to affect those returns through its power of disposition over the company. The financial statements of subsidiaries are included in the Group's financial statements from the date on which control begins until the date on which control ends. Changes in the investment ratio that do not result in a loss of control are treated as a transaction between shareholders and recognised directly in equity. Such transactions do not result in the recognition of goodwill or the realisation of disposal profits.

The consolidation principles apply accordingly to joint ventures and associates accounted for using the equity method. Upon the loss of joint control or significant influence any retained interest in the investee is remeasured at fair value through profit or loss.

Associates are companies in which the Group has significant influence but does not have control or joint control over financial and business policy. A joint venture is an agreement through which the Group exercises joint control, in that it has rights to the net assets of the agreement rather than rights to its assets and obligations for its liabilities. The shares in companies included at-equity are measured at cost of acquisition plus or minus cumulative changes in net assets, with recognised goodwill reported in the carrying amount of the investment.

The Thai company KSB Pumps Co. Ltd., Bangkok, and the Indian company KSB Limited, Pimpri (Pune), are included in the group of fully consolidated affiliates despite the fact that KSB holds less than 50 % of the voting rights. KSB does, however, have the power to determine their business and financial policies and thus the level of variable returns.

KSB gained control over KSB Limited, Pimpri (Pune), in which KSB owns 40.54 % of the shares, through contractual agreements with other shareholders. These agreements ensure that KSB has the majority of voting rights in management committees and also exercises control over the budget.

KSB also exercises control over KSB Pumps Co. Ltd., Bangkok, in which it owns 40 % of the shares, through additional agreements which give KSB the majority of voting rights in management committees and control over the budget.

Affiliates that were not consolidated due to there being no material impact are reported as other investments under non-current other financial assets in the year under review. They were shown under non-current financial assets in the previous year.

The following table shows the subsidiaries with non-controlling interests that are material subsidiaries of the KSB Group. “Seat” refers to the country in which the main activity is performed.
→ Material subsidiaries with non-controlling interests

Information on the subgroup that comprised the subsidiaries of the KSB Group listed in the following table as at 31 December 2018 is summarised under the name “PAB”.
→ Composition of the PAB subgroup 31 Dec. 2018

The summarised financial information regarding the KSB Group’s material subsidiaries with non-controlling interests and the PAB subgroup considered here is provided below. Except for the details on the PAB subgroup, this information corresponds to the amounts shown in the subsidiaries’ financial statements prepared in accordance with IFRS prior to intercompany eliminations.

The required intercompany eliminations were taken into consideration for the PAB subgroup. The details on the PAB subgroup also include financial information of KSB AMRI Inc., Houston/Texas, in which KSB America Corporation, Richmond/Virginia, held an 89.97 % stake throughout the previous year and also in the reporting year until the company was liquidated on 6 December 2018.
→ Summarised balance sheet
→ Summarised statement of comprehensive income
→ Condensed statement of cash flows

Material subsidiaries with non-controlling interests

Name and seat	Non-controlling interest in capital	Earnings after income tax attributable to non-controlling interests		Accumulated non-controlling interests	
€ thousands	2018 / 2017	31 Dec. 2018	31 Dec. 2017	31 Dec. 2018	31 Dec. 2017
PAB, Germany / USA (subgroup)	49.00 %	6,312	7,457*	81,920	72,134*
KSB Limited, India	59.46 %	5,059	4,742	55,116	53,508
KSB Shanghai Pump Co., Ltd., China	20.00 %	– 254	– 847	10,222	10,569
Individually immaterial fully consolidated subsidiaries with non-controlling interests		1,501	3,571*	20,342	25,897*
Total amount of non-controlling interests		**12,618**	**14,923**	**167,600**	**162,108**

* Restated compared with presentation in the 2017 Annual Report.

Composition of the PAB subgroup 31 Dec. 2018

Cons. No.	Name and seat	Country	Capital share in %	Held by No.
1	PAB Pumpen- und Armaturen-Beteiligungsges. mbH, Frankenthal	Germany	51.00	–
2	KSB America Corporation, Richmond / Virginia	USA	100.00	1
3	GIW Industries, Inc., Grovetown / Georgia	USA	100.00	2
4	KSB Dubric, Inc., Comstock Park / Michigan	USA	100.00	2
5	KSB, Inc., Richmond / Virginia	USA	100.00	2
6	KSB, Inc. – Western Division, Bakersfield / California	USA	100.00	2
7	Standard Alloys Incorporated, Port Arthur / Texas	USA	100.00	2

Summarised balance sheet

	PAB		KSB Limited		KSB Shanghai Pump Co., Ltd.	
€ thousands / 31 Dec.	2018	2017*	2018	2017	2018	2017
Non-current assets	69,422	60,271	47,404	48,551	27,851	25,398
Current assets	150,681	142,424	107,463	101,760	145,085	137,263
Non-current liabilities	– 13,140	– 8,564	– 2,340	– 5,223	–	–
Current liabilities	– 39,779	– 46,918	– 59,832	– 56,330	– 121,824	– 113,214
Net assets	**167,184**	**147,213**	**92,695**	**88,758**	**51,112**	**49,447**

* Restated compared with presentation in the 2017 annual report.

Summarised statement of comprehensive income

	PAB		KSB Limited		KSB Shanghai Pump Co., Ltd.	
€ thousands	**2018**	**2017***	**2018**	**2017**	**2018**	**2017**
Sales revenue	212,570	185,007	133,180	127,563	158,278	146,291
Earnings after income tax	12,882	15,219	9,365	8,804	– 1,269	– 5,478
Other comprehensive income	8,496	– 18,748	– 3,890	– 4,083	2,934	7,893
Comprehensive income	21,378	– 3,529	5,475	4,721	1,665	2,415
Other comprehensive income attributable to non-controlling interests	4,163	– 9,187	– 2,313	– 2,428	587	1,579
Comprehensive income attributable to non-controlling interests	10,475	– 1,729	3,255	2,807	333	483
Dividends paid to non-controlling interests	–	–	– 1,538	– 1,549	–	–

* Restated compared with presentation in the 2017 annual report.

Condensed statement of cash flows

	PAB		KSB Limited		KSB Shanghai Pump Co., Ltd.	
€ thousands	**2018**	**2017***	**2018**	**2017**	**2018**	**2017**
Cash flows from operating activities	9,286	18,987	9,883	– 3,606	11,210	9,495
Cash flows from investing activities	– 20,722	– 12,170	– 7,597	– 10,354	2,250	193
Cash flows from financing activities	– 1,178	– 178	325	– 2,867	– 3,179	– 9,121
Changes in cash and cash equivalents	**– 12,614**	**6,639**	**2,611**	**– 16,827**	**10,281**	**567**
Cash and cash equivalents at beginning of period	19,486	15,051	10,264	28,241	2,258	2,292
Effects of exchange rate changes	528	– 2,204	– 382	– 1,150	191	– 301
Cash and cash equivalents at end of period	**7,400**	**19,486**	**12,493**	**10,264**	**12,730**	**2,558**

* Restated compared with presentation in the 2017 annual report.

Acquisitions and divestments

KSB Dubric, Inc., Michigan (USA) was established in order to expand the service network in the American Midwest. The company acquired the assets of the DUBRIC Group on 28 February 2018 and has been fully consolidated from that date. KSB Dubric, Inc. is specialised in servicing and selling pumps, other rotating equipment and the corresponding spare parts. The KSB Group owns 51 % of the shares.

The purchase price of the assets and liabilities acquired was € 5.6 million. The fair value of non-current assets included property, plant and equipment as well as intangible assets of € 4,911 thousand. The goodwill arising from the transaction amounts to € 2.4 million.

From the date of acquisition, KSB Dubric, Inc. contributed € 4.8 million of sales revenue to the Group's consolidated sales revenue. The contribution to consolidated earnings after income tax for the consolidation period was € – 695 thousand.

The costs incurred by the KSB Group through the acquisitions was € 283 thousand. They are reported in the income statement under other operating expenses. In addition, the first-time consolidations had the following impact on the consolidated balance sheet:

First-time consolidations – Impact on balance sheet

€ thousands	2018
Non-current assets	4,913
Current assets	– 4,523
Assets	**390**
Equity	–
Non-current liabilities	–
Current liabilities	390
Equity and liabilities	**390**

Other effects resulting from the consolidation of the company were not material.

As part of the strategic orientation of the operative business of KSB Pumps and Valves (Pty) Ltd., Germiston (Johannesburg), South Africa, the local management decided at the beginning of 2018 to improve its Broad-based Black Economic Empowerment (B-BBEE) rating to improve its chances of being awarded government contracts. The Broad-based Black Economic Empowerment Act is an affirmative action programme to achieve financial equality of previously disadvantaged population groups in South Africa.

For this reason, the shares of the previous B-BBEE partner, which owned 15.01 % of the partnership shares, were first bought back by KSB on 18 January 2018 through a contractually agreed option. On 20 July 2018, 30 % (plus one share) of the shares in KSB Pumps and Valves (Pty) Ltd. were transferred to the new B-BBEE partner. In the 2018 financial year, no profit share had so far been allocated to new shareholders. Any entitlement depends on the occurrence of other conditions. More information can be found in Section V. Income Statement Disclosures – Notes No. 17 "Finance income / expense".

The American company KSB AMRI, Inc., Houston, and the British company Smedegaard Pumps Limited, Bridgwater, were liquidated in the financial year. The sale of KSB Shanghai Precision Casting Co., Ltd., Shanghai, China, carried out in the 2017 financial year was completed by selling the remaining 5 % of the shares. The company gear-tec GmbH, Eggebek, Germany, which was not fully consolidated due to there being no material impact, was also sold in the middle of the year under review.

The impact of the above changes on the consolidated financial statements was not material.

A full list of the shareholdings held by the KSB Group is provided at the end of these Notes to the Consolidated Financial Statements.

Consolidation methods

For the purposes of consolidation, the effects of any intercompany transactions are eliminated in full. Any receivables and liabilities between the consolidated companies are offset against each other, and any unrealised gains and losses recognised in fixed assets and inventories are eliminated. Any revenues from intercompany sales are offset against the corresponding expenses.

Capital consolidation is based on the purchase method of accounting pursuant to IFRS 3. This means that the amortised cost of the parent's shares in the subsidiary is eliminated against the remeasured equity attributable to the parent at the date of acquisition.

Any goodwill created from the application of the purchase method denominated in a currency other than the functional currency of the KSB Group is measured at the relevant current closing rate. Goodwill is reported under intangible assets and tested for impairment at least once a year. If an impairment is identified, an impairment loss is recognised. Any excess of our interest in the fair values of net assets acquired over cost remaining after reassessment is recognised in profit or loss in the year it occurred.

Those shares of subsidiaries' equity not attributable to KSB SE & Co. KGaA are reported as non-controlling interests.

Currency translation

The consolidated financial statements have been prepared in euros (€). Unless otherwise stated, amounts in this report are presented in thousands of euros (€ thousands) using standard commercial rounding rules.

Currency translation is effected on the basis of the functional currency of the consolidated companies. As in the previous year,

Exchange rates for the most important currencies

	Closing rate		Average rate	
	31 Dec. 2018	31 Dec. 2017	2018	2017
US dollar	1.1450	1.1993	1.1810	1.1292
Brazilian real	4.4440	3.9729	4.3085	3.6041
Indian rupee	79.7298	76.6055	80.7332	73.4887
Chinese yuan	7.8751	7.8044	7.8081	7.6257

the functional currency is exclusively the local currency of the company consolidated, as it operates as a financially, economically and organisationally independent entity.

Transactions denominated in foreign currencies are translated at the individual companies at the rate prevailing when the transaction is initially recognised. Monetary assets and liabilities are subsequently measured at the closing rate. Measurement effects are recognised in the income statement.

When translating financial statements of consolidated companies that are not prepared in euro, assets and liabilities are translated at the closing rate; the income statement accounts and cash flow statement items are translated at average annual exchange rates (modified closing rate method). The sole exception as at 31 December 2018 was the translation of the financial statements of KSB Compañía Sudamericana de Bombas S.A., Argentina where income statement items were translated at the closing rate. Gains and losses from the translation of items of assets and liabilities compared with their translation in the previous year are taken directly to equity in other comprehensive income and reported under currency translation differences. They amount to € –117,763 thousand (previous year: € –103,914 thousand). The effect of currency translation adjustments taken directly to equity on intangible assets, property, plant and equipment, and financial assets was a loss of € 6,885 thousand (previous year: loss of € 25,689 thousand).
→ Exchange rates for the most important currencies

Hyperinflation

In the financial year, Argentina was rated as a hyperinflation country for accounting purposes. As such, KSB is following the information of the International Practices Task Force (IPTF) of the Center of Audit Quality (CAQ). Based on this assessment, activities in Argentina have been reported under IAS 29 Financial Reporting in Hyperinflationary Countries since 1 January 2018. The effect on the monetary items was € –335 thousand. No further information was provided as the impact on the Group's net assets, financial position and result of operations was not material.

III. ACCOUNTING POLICIES

Acquisition and production costs

In addition to the purchase price, acquisition cost includes attributable incidental costs (except for costs associated with the acquisition of a company) and subsequent expenditure. Purchase price reductions are deducted.

As well as directly allocated costs, production costs also include reasonable proportions of material and production overheads based on standard capacity utilisation of the relevant production facilities, if and to the extent these were incurred as part of the production process. This also includes production-related administrative expenses. General administrative expenses, research costs and selling expenses are not capitalised.

Borrowing costs as defined in IAS 23 that can be directly allocated to the acquisition or production of qualifying assets are capitalised from 2009. As in the previous year no such borrowing costs were incurred.

Fair value

Fair value is the price that independent market participants would, under standard market conditions, receive when selling an asset or pay when transferring a liability at the measurement date. This applies irrespectively of whether the price is directly observable or has been estimated using a measurement method.

The KSB Group defined a monitoring framework concept for determining fair value. This includes the monitoring of all material measurements at fair value and the direct communication of material facts to Management and, if necessary, to the audit committee. For the purposes of calculating fair value, KSB makes use wherever possible of estimates from market participants or estimates derived from these. As an initial step, regular checks are made to ascertain if there are current prices on active markets for an identical transaction. If no quoted market prices are available, the preference is to use the market-based approach (deriving the fair value from the market or transaction prices of comparable assets, for example multipliers) or the income-based approach (calculation of fair value as a future value by discounting future cash surpluses).

Based upon the input factors used in the measurement methods, fair values are assigned to different levels of the fair value hierarchy.

- Level 1: Quoted prices (unadjusted) on active markets for identical assets and liabilities
- Level 2: Measurement parameters that are not the quoted prices taken into account for level 1, but that are observable for the asset or the liability either directly as a price or indirectly derived from prices
- Level 3: Measurement parameters for assets or liabilities that are not based on observable market data

If input factors categorised into different levels are included in the fair value measurement, the measurement must be categorised in its entirety in the level of the lowest level input factor that is material for the entire measurement.

Reclassifications between different levels in the fair value hierarchy are recognised at the end of the reporting period during which the change has occurred. There were no reclassifications carried out in the year under review.

Financial assets and financial liabilities

A financial instrument is any contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity.

Financial assets and financial liabilities are recognised in the consolidated balance sheet at the time when KSB becomes a contractual party. When the contractual right to payments from financial assets expires, these are derecognised. Financial liabilities are derecognised at the time when the contractual obligations are settled or cancelled or have expired. The acquisition and sale of financial instruments on an arm's length basis are recognised at the value at the date of settlement. This concerns the primary financial instruments such as trade receivables and financial claims as well as trade payables. Only derivative financial instruments are recognised at the value at the trade date.

a) Primary financial instruments

In the KSB Group, primary financial instruments are allocated to the following measurement categories as financial assets and financial liabilities based on the requirements of IFRS 9:

Financial assets:

- Financial assets at amortised cost – Receivables, credits, cash and cash equivalents, loans and other financial assets
- Financial assets at fair value through profit or loss (FVPL) – Financial instruments

Financial liabilities:

- Financial liabilities at amortised cost – Loans, liabilities and other financial liabilities

Financial assets and liabilities are reported at fair value on initial recognition. Financial assets and liabilities that are not measured at fair value are recognised after adjustment for transaction costs. Subsequent measurement is in line with the measurement category allocated to the financial asset or financial liability.

The fair value option is not being used at the moment.

In the previous year, items were allocated to the following categories under IAS 39:

- Loans and receivables (LaR) that are not quoted in an active market
- Financial liabilities measured at amortised cost (FLAC) using the effective interest method. Liabilities that are not quoted in an active market, such as trade payables
- Available for sale (AfS) – Available-for-sale financial instruments – Non-derivative financial instruments that are not allocated to any other measurement category, such as investments in non-consolidated subsidiaries or securities

b) Derivatives

Derivatives are exclusively used for hedging purposes. Future cash flows and existing recognised underlyings are hedged against foreign currency and interest rate risks (cash flow hedges). The hedging instruments used are exclusively currency forwards, currency options and interest rate derivatives entered into with prime-rated banks. Currency risks are hedged primarily for transactions in US dollars (USD). Interest rate risks are minimised for long-term borrowings at floating rates of interest. Group guidelines govern the use of these instruments. These transactions are also subject to continuous risk monitoring.

In the case of cash flow hedges, changes in the fair value of the effective portions of the currency derivatives are recognised under other comprehensive income and reported under "Changes in the fair value of financial instruments" in equity for as long as the underlying transaction is not recognised in the income statement. Only the spot element of the derivative hedging instrument is designated, while the forward element and currency basis spreads are excluded from the hedge and reported separately in the hedging cost reserve in other comprehensive income. Any hedge ineffectiveness is reported through the income statement.

Changes in the fair value of interest rate derivatives used to hedge against interest rate risks in liabilities are recognised under other comprehensive income and reported under "Changes in the fair value of financial instruments" in equity.

The carrying amounts equal fair value and are determined on the basis of input factors observable either directly (as a price) or indirectly (derived from prices). Fair values may be positive or negative. Fair value is the amount that KSB would receive or have to pay at the reporting date to settle the financial instrument. This amount is determined using the relevant exchange rates, interest rates and counterparty credit ratings at the reporting date. Information is obtained solely from recognised external sources.

Currency forwards and interest rate swaps are reported under other receivables and other current assets, and under miscellaneous other liabilities.

As in the previous year, maturities of the currency derivatives used are mostly between one and two years; there are no interest rate derivatives for the financial year in the Group. The maturities of the hedging instruments are matched to the period in which the forecast transactions are expected to occur. In the year under review, almost all hedged forecast transactions occurred as expected.

Intangible assets

Intangible assets are measured at (acquisition or production) cost and reduced by straight-line amortisation. Depreciation/amortisation is reported under "Depreciation and amortisation" in the income statement. The underlying useful lives of intangible assets – excluding goodwill (indefinite useful life) – is between two and five years. If the reasons for an impairment loss in a previous period no longer apply, it is reversed (write-up) up to a maximum of amortised cost.

Goodwill is tested for impairment once a year. The test relates to cash-generating units (CGU), which at KSB are generally the legal entities. Occasionally a group of cash-generating units may also serve as the basis, provided these units reflect the lowest level on which goodwill is monitored. The goodwill (and, if necessary, other assets) is reduced by the difference in value if the value in use is lower than the carrying amount of the CGU. Reversal of an impairment loss from an earlier period is not possible. In addition, a review of impairment is always carried out when events or circumstances (“trigger events”) suggest that the value could be impaired.

The discounted cash flow model is used to determine the recoverable amount (value in use). The future earnings (EBIT in accordance with IFRS) applied were taken from a multi-year financial plan (covering a maximum of five years), based on the 30 September reporting date taking into account the medium-term strategy approved by Management for the respective cash-generating unit. This planning was carried out based on certain assumptions which were drawn from both forecasts from external sources, e.g. current German Mechanical Engineering Industry Association (VDMA) publications, and our own experience-based knowledge of markets and competitors. The earnings of the last plan year were consistently extrapolated as a constant, considering that level to be achievable in the long term. Growth rates were derived taking account of the rate of inflation and estimates with regard to regional and segment-specific circumstances. The Group regularly tests goodwill for impairment in the fourth quarter of every year based on the figures as per 30 September of the year in question.

As part of the assessment, the Group conducts sensitivity analyses to estimate the risk of impairment. The following assumptions are used in the process: a 15 % increase in the cost of capital (Sensitivity 1; previous year: 5 %), a 0.25 % reduction in the growth rate (Sensitivity 2) and a 10 % reduction in sales revenue with the corresponding impact on expense items and performance indicators (Sensitivity 3). Sensitivity 3 is only applied to the material goodwills of the KSB Group.

When companies are acquired, purchase price allocations are made and the fair value of the assets and liabilities acquired is determined. In addition to the assets and liabilities already recognised by the selling party, account is also taken of marketing-related aspects (primarily brands or trademarks and competitive restrictions), customer-related aspects (primarily customer lists, customer relations and orders on hand), contract-related aspects (mainly particularly advantageous service, work, purchasing and employment contracts) as well as technology-related aspects (primarily patents, know-how and databases). The residual value method, the excess earnings method and cost-oriented procedures are primarily applied to determine values.

Development costs are capitalised as internally generated intangible assets at cost where the criteria described in IAS 38 are met and reduced by straight-line amortisation as from the time of their capitalisation. Research costs are expensed as incurred. Where research and development costs cannot be reliably distinguished within a project, no costs are capitalised.

Property, plant and equipment

In accordance with IAS 16, property, plant and equipment is measured at cost and reduced by straight-line depreciation over its useful life. If an asset’s recoverable amount is lower than its carrying amount, an impairment loss is recognised. If the reasons for an impairment loss recognised in a previous period no longer apply, the impairment loss is reversed (write-up) up to a maximum of amortised cost.

Government grants relating to property, plant and equipment are transferred to an adjustment item on the liabilities side. This adjustment item is reversed over a defined utilisation period. As far as government grants recognised which are to be held for specific periods of time are concerned, these periods are expected to be complied with.

Maintenance expenses are recognised as an expense in the period in which they are incurred, unless they lead to the expansion or material improvement of the asset concerned.

The following useful lives are applied:

Useful lives of property, plant and equipment

Buildings	10 to 50 years
Plant and machinery	5 to 25 years
Other equipment, operating and office equipment	3 to 25 years

Leases

IAS 17 defines a lease as an arrangement under which a lessor provides a lessee with the right to use an asset for an agreed period of time in exchange for a payment. A lease is classified as a finance lease if it transfers substantially all the risks and rewards incident to ownership to the lessee. Otherwise, such transactions are to be classified as operating leases.

Lease payments that are payable under operating leases are recognised as expenses in the period in which they are incurred. In the case of finance leases, the leased asset is recognised at the time of inception of the lease at the lower of fair value and the present value of future minimum lease payments. A liability is recognised in the same amount for the future lease payment. The asset's carrying amount is reduced by depreciation over its useful life or the shorter lease term.

Non-current financial assets

Interest-bearing loans are recognised at amortised cost, whereas non-current financial instruments are reported in the income statement at fair value on the balance sheet date. Financial assets such as other cash deposits are subject to an expected default risk. The impairment loss is calculated based on the loan amount on the closing or balance sheet date, the loss ratio of the loan amount and the term-weighted credit default spreads as a benchmark for probability of failure. Furthermore, partial or complete impairment is recognised as soon as there are signs of an increase in default risk. No significant default risks of counterparties were determined during the year. They were within investment grade as a whole.

Non-current other non-financial assets

Investments in non-consolidated subsidiaries are measured at amortised cost.

Investments accounted for using the equity method

Investments accounted for using the equity method are companies in which the parties exercise joint control (joint venture) or have the power to exercise significant influence over the companies' operating and financial policies (associate); this is usually the case where an entity holds between 20 % and 50 % of the voting power. These assets are recognised at cost at the time of acquisition. If the costs of acquisition exceed the share of the net assets, adjustments are made on the basis of the fair value (pro rata hidden reserves and liabilities). The remaining amount is recognised as goodwill. It forms part of the carrying amount of the joint venture or associate and is not amortised. For subsequent measurement, the carrying amounts are increased / reduced annually by the pro-rata earnings, distributed dividends or other changes in equity of the joint venture or the associate. If local accounting principles differ from the Group's standard accounting policies, adjustments are made accordingly. The share of earnings is reported in the consolidated income statement in a separate line (earnings from investments accounted for using the equity method), and changes such as currency translation effects are taken directly to Group equity. If the losses attributable to the KSB Group correspond to the carrying amount of the company or exceed this, they are not recognised unless KSB has entered into obligations or has made payments for the company. Intercompany gains and losses from transactions between Group companies and investments accounted for using the equity method are offset against the carrying amount in profit or loss. At each reporting date, a review is carried out to determine whether there are any objective indications of impairment, and the amount of such impairment is calculated if required. If the carrying amount exceeds the recoverable amount of an investment, it is written down to the recoverable amount. Any impairments or reversals of impairments are reported in the consolidated income statement under finance income / expense.

Inventories

Pursuant to IAS 2, inventories are recognised at the lower of cost and net realisable value as at the reporting date. Cost is measured using the weighted average method. KSB takes account of the inventory risks resulting from slow-moving goods or impaired marketability through write-downs to the net realisable value. This also applies if the selling price is lower than production cost plus costs still to be incurred. If the reasons for an impairment loss charged in a previous period no longer apply, the impairment loss is reversed (write-up).

Advance payments made on inventories are also presented here because of the correlation and expected realisation of these advances (through conversion into inventories) within the normal business cycle.

Contract assets and contract liabilities

A contract asset shows KSB's claim to consideration in exchange for goods or services transferred to customers, with the right to payment being not only conditional on the passage of time but also on the satisfaction of an overall contractual performance obligation by KSB. By contrast, receivables reflect KSB's unqualified claim to consideration. A contract liability also represents KSB's obligation to transfer goods or services to a customer. However, in these cases KSB has already received consideration from a customer that exceeds the amount of the goods or services provided. Any impairment of contract assets is recognised using the simplified impairment model. Contract assets relate to ongoing projects that have not yet been invoiced and are subject to similar credit risks as trade receivables for the same types of contract. Against this background, the expected loss rates of trade receivables are also applied to the impairment of contract assets.

Trade receivables

Trade receivables and other current assets are subsequently recognised at amortised cost. Low-interest or non-interest-bearing receivables are discounted. In addition, identifiable risks are taken into account by charging individual impairment losses using allowance accounts. Individual impairment allowances are to be applied if insolvency or collection proceedings have been instigated, on the default or failure to meet agreed repayment plans and on overdue payments. Receivables are derecognised if it is reasonably certain that payment cannot be expected. A risk provision for expected credit losses is set aside under the simplified impairment model according to IFRS 9 for receivables that are not individually impaired. To measure expected credit losses, trade receivables are summarised on the basis of common credit risk features (risk classes) and number of days overdue. The expected default rates stem from the historic payment profiles of sales revenues over the last three financial years before the reporting date. The historic and forward-looking information forms the basis for the expected probability of failure, adjusted for future-oriented macroeconomic factors.

Most of the default risk exposure of trade receivables is hedged. For more information, please refer to Section VI. Additional Information on Financial Instruments – sub-section "Financial risks – Credit risk".

Trade receivables for which collateral, such as credit insurance, has been provided or letters of credit have been opened are recognised as impaired, taking account of default risks of the provider of the security and the company's macroeconomic factors.

If the reasons for an impairment loss charged in a previous period no longer apply, the impairment loss is reversed (write-up).

Other non-financial assets

The prepayments made that are presented in this item relate to accrued expenditure prior to the reporting date that will only be classified as an expense after the reporting date.

Cash and cash equivalents

Cash (cash and sight deposits) and cash equivalents (short-term, highly liquid financial investments that are readily convertible to defined amounts of cash, and that are subject to only immaterial fluctuations in terms of their value) are recognised at amortised cost. Cash and cash equivalents are subject to an expected credit default risk. The impairment allowance under IFRS 9 is calculated based on the loan amount on the closing date, the loss ratio of the loan amount and the term-weighted credit default spreads as a benchmark for probability of failure. Furthermore, partial or complete impairment allowances are recognised as soon as there are signs of an increase in default risk. No significant default risks of counterparties were determined during the year. They were within investment grade as a whole.

Assets held for sale

Pursuant to IFRS 5, non-current assets or disposal groups are classified as held for sale if it is highly likely that the carrying amount will be realised primarily by a sales transaction and not through continued use of that asset. It must be assumed that the sale will be completed within one year. If the Group is committed to a sale that involves loss of control of a subsidiary, all assets and liabilities of that subsidiary will be classified as held for sale, provided the above conditions are met. The intangible assets and property, plant and equipment of the held-for-sale assets are no longer amortised / depreciated, but instead are recognised at the lower of the carrying amount and fair value less costs to sell.

Deferred taxes

Deferred taxes are accounted for in accordance with IAS 12 using the balance sheet liability method on the basis of the enacted or substantively enacted local tax rates. This means that deferred tax assets and liabilities generally arise when the tax base of assets and liabilities differs from their carrying amount in the IFRS financial statements, and this leads to future tax expense or income. Deferred tax assets from tax loss carryforwards are recognised in those cases where it is more likely than not that there will be sufficient taxable profit available in the near future against which these tax loss carryforwards can be utilised. Deferred taxes are also recognised for consolidation adjustments. Deferred taxes are not discounted. Deferred tax assets and liabilities are always offset where they relate to the same tax authority. Changes to deferred taxes in the consolidated balance sheet generally result in deferred tax expense or income. If, however, a direct entry is made in other comprehensive income in equity, the change in deferred taxes is also taken directly to equity.

Provisions

a) Provisions for pensions and similar obligations

Provisions for pensions and similar obligations pursuant to IAS 19 are calculated on the basis of actuarial reports. They are based on defined benefit pension plans. They are measured using the projected unit credit method.

Actuarial gains and losses are taken directly to other comprehensive income and reported in equity under "Remeasurement of defined benefit plans". The actuarial demographic assumptions and the setting of the discount rate (based on senior, fixed-income corporate bonds) and other measurement parameters (for example income and pension trends) are based on best estimates.

Net interest is calculated by multiplying the discount rate with the net liability (pension obligation minus plan assets) or the net asset value that results if the plan assets exceed the pension obligation.

The defined benefit costs include the service cost, which is included in staff costs under pension costs, and the net interest income or expense on the net liability or net asset value, which is recognised in finance income / expense under interest and similar expenses or under interest and similar income.

No provisions are set aside for defined contribution pension plans. In these cases, the premium payments are recognised directly in the income statement as pension costs in the staff costs. Other than an obligation to pay premiums, KSB has no further obligations. Consequently, the insurance risk remains with the insured parties.

b) Other provisions

Provisions are recognised if a past event results in a present legal or constructive external obligation that the company has no realistic alternative to settling, where settlement of this obligation is expected to result in an outflow of resources embodying economic benefits, and the amount of the obligation can be estimated reliably. The amount of the provision corresponds to the best estimate of the settlement amount of the current obligation on the reporting date. Any more or less secure recourse or reimbursement claims are recognised as separate assets.

If customer contracts are expected to be loss-making, a gross statement is drawn up of contract assets and provisions for the expected losses.

Provisions for restructurings are recognised only if the criteria set out in IAS 37 are met.

Non-current provisions are discounted if the effects are material.

In the 2018 financial year, accounting principles were amended so that some items previously allocated to provisions are now classified as liabilities. To increase transparency in relation to the uncertainties associated with individual liability items, liabilities for other staff costs previously shown in particular under provisions that can be classified as certain in terms of maturity and amount, as well as accruals and deferrals for outstanding invoices are now reported under liabilities.

In accordance with IAS 8, this is a voluntary change requiring retrospective application. The prior-year figures were restated accordingly. More information on the changes are presented in Section IV. Balance Sheet Disclosures - Notes No. 10 “Provisions” and 11 “Liabilities”.

Contingent liabilities
Contingent liabilities, which are not recognised, are potential obligations that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of uncertain future events. Contingent liabilities may also be present obligations that arise from past events where it is possible but not probable that there will be an outflow of resources embodying economic benefits.

Contingent liabilities correspond to the extent of liability at the reporting date.

Revenue from contracts with customers
The rules of IFRS 15 were applied by KSB for the first time in the year under review. The new IFRS 15 standard summarises in a new standard the numerous previous rules and interpretations on sales revenue recognition. Standardised basic principles for all sectors and categories were also determined by the new standard. The recognition of sales revenue from customer contracts is essentially based on a five-step model framework.

KSB generates sales revenue from the sale of goods and goods purchased and held for resale from the production, sale and trade of machinery, systems and other industrial products, particularly pumps and valves and related support services. KSB generates most of its sales revenue in the Pumps segment. The breadth of these orders ranges from the supply of an individual pump to customised pump sets, including drive and control systems. These goods and services are sold to engineering contractors, OEMs and end users or, in some cases, distributed via dealers. Some customer contracts contain several service components, such as manufacture of a pump and the related installation and commissioning. These installation services cover integration services and can only be carried out by specifically trained and qualified staff. They are not accounted for as independent performance obligations and the transaction price is not split.

Sales revenue is recognised in the amount of the consideration expected by KSB based on the transfer of goods or provision of services to the customer. Depending on the type of performance and contractual structure, sales revenue is recognised either over time or at a point in time in line with satisfaction of the performance obligation by KSB.

If a performance obligation meets the criteria for recognising sales revenue over time under IFRS 15 and the progress towards completion and expected consideration can be reliably estimated, the sales revenue, as with the previous procedure under IAS 11 (percentage-of-completion method)/IAS 18, is recognised based on progress towards complete satisfaction of the performance obligation. KSB specifically recognises sales revenue over time for contracts covering the production of customised pumps and valves as well as contracts for the provision of services. By contrast, standard products in the pumps and valves areas are typically subject to sales revenue recognition at a point in time. KSB applies the input-oriented method to determine progress that is measured by the factors used. The percentage of completion of contracts is determined on the basis of the proportion that contract costs incurred for work performed up to the reporting date bear to the estimated total contract costs at the reporting date and thus follows the cost-to-cost method. Contract revenue consists of all contractually agreed revenues, as well as additional claims and incentive payments that are likely to result in revenue and are capable of being reliably measured. Contract revenue may vary, for instance because of cost escalation clauses, renegotiations or penalties. Sales revenue is accounted for based on the amount fixed in the contract less expected consideration. Variable considerations (cost escalation clauses, penalties, bonuses) are estimated at the most likely expected value. Restrictions on estimate options are taken into account. Estimates on costs and contract progress are corrected if circumstances change. Any resultant increases or reductions in the estimated proceeds or costs are reflected in the profit and loss account for the period in which the circumstances giving rise to the correction occurred. If the earnings from a service or production order with sales revenue recognition over time cannot be reliably estimated, revenue will only be recognised in the amount of the contract costs incurred that are likely to be covered and the contract costs recognised as an expense for the period in which they are incurred.

Sales revenue is recognised at a point in time for performance obligations that do not meet the criteria for recognising sales revenue over time under IFRS 15. At KSB, this typically applies in particular to standard products without any significant customer-specific characteristic in the Pumps and Valves segments. The point in time at which KSB satisfies its performance obligations from contracts with customers subject to sales revenue recognition at a point in time is based on the agreed supply terms and conditions or acceptance by the customers. At the time of revenue recognition, receipt of the consideration must be probable and the amount of sales revenue must be reliably measurable. A reliable estimation of the associated costs and potential return of the goods must also be possible. Sales revenue from delivery is as a rule recognised in line with the agreed INCOTERMS. For standard products, FCA or EXW terms and conditions apply in most cases. For some international deliveries, the contractual risk transfer takes place when the goods are loaded onto a cargo ship in the port or delivered to the customer in the destination country. In these cases, sales revenue is also recognised on the basis of the contractually agreed INCOTERMS. For certain deliveries and services, a declaration of acceptance by the customer is required for the recognition of sales revenue. For customer contracts based on sales revenue recognised at a point in time, sales reductions also reduce sales revenue.

KSB agrees payment terms and conditions for customer contracts that allow for payment in a reasonable period after the invoice has been issued. Extended payment terms are not usually granted to customers. There are usually no long-term financing components.

In individual cases and in compliance with the statutory requirements of IFRS 15, a customer may ask to obtain control of a product prior to delivery of the goods (bill-and-hold arrangements). This can result in earlier sales revenue recognition.

For regular fixed-price contracts, the customer pays a fixed amount using a payment plan. Depending on the ratio of the customer payments received to the claim to consideration acquired by KSB based on the transfer of goods and services to the customer, there is an advance or subsequent type of payment on the reporting date for the respective customer contract. Contract assets are reported reduced by advances received, if the amount of the goods and services provided by KSB exceed the payment amount. Payments received from the customer that exceed the amount of the goods and services provided by KSB for the respective customer contract result in the reporting of a contract liability.

Interest income and expenses are recognised in the period in which they occur. **Dividend income** from investments is collected when the legal entitlement to payment is created. **Operating expenses** are recognised when they are incurred or when the services are utilised. **Income tax** is calculated in accordance with the statutory tax rules in the countries in which the Group operates. Deferred taxes are accounted for on the basis of the enacted or substantively enacted income tax rates.

Estimates and assumptions

The preparation of consolidated financial statements in accordance with the IFRSs as adopted by the EU requires management to make estimates and assumptions that affect the accounting policies to be applied. When implementing such accounting policies, estimates and assumptions affect the assets, liabilities, income and expenses recognised in the consolidated financial statements, and their presentation. These estimates and assumptions are based on past experience and a variety of other factors deemed appropriate under the circumstances. Actual amounts may differ from these estimates and assumptions. The estimates and assumptions made are constantly reviewed. If more recent information and additional knowledge are available, recognised amounts are adjusted to reflect the new circumstances. Any changes in estimates and assumptions that result in material differences are explained separately.

Impairment tests for goodwill, which are conducted at least once per year, require an estimate of the recoverable amounts for each cash-generating unit (CGU). These correspond to the higher amount from the fair value less costs to sell and value in use. The earnings forecast on the basis of these estimates are affected by various factors, which may include exchange rate fluctuations, progress in Group integration or the expectations for the economic development of these units. Although Management believes that the assumptions used to calculate the recoverable amount are appropriate, any unforeseen changes in these assumptions could lead to an impairment loss.

Estimates and assumptions must also be made to review the *value of assets*. For each asset it must be verified to what extent there are indications of an impairment. When determining the recoverable amount of property, plant and equipment, the estimation of the relevant useful life is subject to uncertainty.

Contract assets are subject to the impairment rules of IFRS 9. Any impairment of contract assets is recognised using the simplified impairment model. Contract assets relate to ongoing projects that have not yet been invoiced and are subject to similar credit risks as trade receivables for the same types of contract. Against this background, the expected loss rates of trade receivables are also applied to the impairment of contract assets.

If performance obligations meet the relevant criteria of IFRS 15, KSB recognises revenue from customer contracts over time in line with progress towards completion. The latter is determined according to the percentage of completion. This requires estimates regarding the total contract costs and revenue (including the variable considerations based on experience), contract risks as well as other relevant factors. These estimates are reviewed regularly by those with operative responsibility and adjusted where necessary.

Provisions for employee benefits, especially pensions and similar obligations, are determined according to actuarial principles which are based on statistical and other factors so as to anticipate future events. Material factors are the reported market discount rates and life expectancy. The actuarial assumptions made may differ from actual developments as a result of changing market and economic conditions, and this can have material effects on the amount of provisions and thus on the company's overall net assets, financial position and results of operations.

The pension plans concluded before 2009 solely provided for the payment of accumulated amounts in the form of a monthly pension for life upon retirement. In an extension to the Group works agreement, a lump-sum option was added to the company pension scheme in the 2018 financial year. Under this, every employee is entitled to apply at any time during the ongoing employment contract for payment in annual instalments, as a single payment or as a pension for life. KSB has estimated how the specific workforce is likely to decide on exercising the lump-sum option and has taken this into account for the measurement of pension provisions. All other measurement parameters are unchanged year on year. Average fluctuation is assumed.

Other provisions are reported based on the best possible estimate of the probability of future outflows. The later, actual outflow can, however, differ from the estimate as a result of changed economic, political or legal conditions. This will be reflected in additional expenses or income from reversals.

The global scope of activities must be taken into account in relation to *taxes on income*. Based on operative activities in numerous countries with varying tax laws and administrative interpretation, differentiated assessment is required for determining tax liabilities. Uncertainty may arise due to different interpretations by taxable entities on the one hand and local finance authorities on the other. Uncertain tax assets and liabilities are recognised if their probability of occurrence exceeds 50 %. For the reporting, the best estimate is based on the expected tax payment. Although KSB believes it has made a reasonable estimate regarding any tax uncertainties, it is possible that the actual tax obligation will differ from the original estimate. With regard to future tax benefits, KSB assesses their realisability as of every reporting date. For this reason, deferred tax assets are only recognised if sufficient taxable income is available in future. In assessing this future taxable income within the planning horizon it must be taken into account that expected future business developments are subject to uncertainties and are in some cases beyond the control of company management (for example changes to applicable tax legislation). If KSB comes to the conclusion that previously reported deferred tax assets cannot be realised because of changed assumptions, then the assets will be written down by the appropriate amount.

Maturities
Maturities of up to one year are classified as current.

Assets that can only be realised after more than twelve months, as well as liabilities that only become due after more than twelve months, are also classified as current if they are attributable to the operating cycle defined in IAS 1. An operating cycle of more than 12 months typically applies to made-to-order production (construction contracts).

Assets and liabilities not classified as current are non-current.

Impact of the introduction of the new accounting standards
As a result of the application of the new rules contained in IFRS9 Financial Instruments and IFRS 15 Revenue from Contracts with Customers, KSB changed its accounting policies as from 1 January 2018. Both IFRS 9 (apart from the recognition of hedges) and IFRS 15 were applied for the first time without any retrospective restatement of comparative data. The reclassifications and restatements resulting from the amended accounting principles are therefore not retrospective to 31 December 2017, but are only reported in the opening balance sheet as at 1 January 2018.

The following table shows the restatements in the opening balance sheet per individual item in the balance sheet. Items not subject to any change as at 1 January 2018 are not included in the table.

→ Restatements in the opening balance sheet

IFRS 9 Financial Instruments contains new rules on the classification and measurement of financial instruments, changes in the reporting and measurement of impairment of certain financial assets and revised rules on hedge accounting.

IFRS 9 contains three categories for measuring financial assets and liabilities: at amortised cost, at fair value through profit or loss and at fair value directly in equity. The categories of IAS 39 have been replaced in full. The rules for *classification and measurement* of financial instruments under IFRS 9 are based on the following two criteria: Firstly on the Group's business model for managing the financial assets (hold, hold and sell and held for sale), and secondly on the nature of the cash flows. If the cash flows from the financial instrument derive solely from interest and redemption payments, classification is made depending on the business model. If the asset is only held to collect contractual cash flows, then measurement is at amortised cost. Nearly all the Group's assets meet these criteria and are therefore measured at amortised cost, with the exception of financial instruments and currency forwards. The reclassifications following this approach from IAS 39 to IFRS 9 are presented in the reconciliation table.

→ Reconciliation of measurement categories of financial assets from IAS 39 to IFRS 9

Restatements in the opening balance sheet

Balance sheet (extract) / € thousands	31 Dec. 2017*	Restatement under IFRS 9	Restatement under IFRS 15	Opening balance sheet 1 Jan. 2018
Assets				
Non-current assets				
Financial assets	6,132	– 2,985	–	3,147
Other non-financial assets	–	2,985	–	2,985
Current assets				
Inventories	461,877	–	42,210	504,087
Contract assets	–	– 79	69,724	69,645
Trade receivables from third parties	480,928	– 1,486	–	479,442
Receivables recognised by PoC, net	100,042	–	– 100,042	–
Deferred tax assets	91,736	562	1,546	93,844
Equity and liabilities				
Equity	885,398	– 1,003	– 8,222	876,173
Non-current liabilities				
Deferred tax liabilities	14,703	–	– 1,311	13,392
Current liabilities				
Other provisions	68,806*	–	4,883	73,689
Contract liabilities	–	–	165,192	165,192
Other financial liabilities	81,467	–	– 49,401	32,066
Other non-financial liabilities	263,600*	–	– 97,703	165,897

* Restated compared with presentation in the 2017 annual report.

Changes to the financial liabilities measured at fair value through profit and loss were fully recognised in the income statement under IFRS 39, while IFRS 9 requires a separate treatment. If changes are a result of credit risk developments, then they are to be recognised in other comprehensive income. Other changes are recognised in the income statement. Financial liabilities are as a rule measured at amortised cost in the Group.

According to the new rules regarding impairment, the incurred loss model (retrospective) applied under IAS 39 is to be replaced by the expected credit loss model (prospective). The standard stipulates a general three-stage model (impairment model) and a simplified method for determining the anticipated impairment. For all financial instruments that fall within the scope of the new impairment model, the calculated prospective impairment needs to be reported at the time of initial recognition based on a valid future estimation.

KSB applies the expected credit loss model to financial assets under IFRS 9. This applies to the value of the "Trade receivables" and "Contract assets" balance sheet items.

Under IFRS 9, KSB applies the simplified approach to determine default risk for trade receivables and contract assets. As of 1 January 2018, the impairment allowance of trade receivables was increased by € 1,486 thousand directly in equity. Furthermore, impairment of contract assets of € 79 thousand was taken directly to equity on a one-time-only basis. The change in risk provision for expected credit losses in the financial year is presented in the comments on trade receivables and contract assets in Section IV. Balance Sheet Disclosures.

Reconciliation of measurement categories of financial assets from IAS 39 to IFRS 9

	31 Dec. 2017		Restatements under IFRS 9		1 Jan. 2018	
€ thousands	Measurement category (IAS 39)	Carrying amount	Re-categori-sation	Measurement effect	Carrying amount [1]	Measurement category (IFRS 9)
Non-current assets						
Other investments	n / a	2,985	– 2,985	–	–	n / a
Non-current financial instruments	AfS	657	–	–	657	FVPL
Loans	LaR	2,490	–	–	2,490	Amortised cost
Current assets						
Trade receivables from third parties	LaR	480,928	–	– 1,486	479,442	Amortised cost
Trade receivables from other investments, associates and joint ventures	LaR	32,341	–	–	32,341	Amortised cost
Receivables from loans to other investments, associates and joint ventures	LaR	13,344	–	–	13,344	Amortised cost
Receivables recognised by PoC, net	LaR	100,042	– 100,042	–	–	n / a
Currency forwards used as hedges	n / a	5,074	–	–	5,074	n / a
Other receivables and other current assets	LaR	98,552	–	–	98,522	Amortised cost
Cash and cash equivalents	LaR	289,535	–	–	289,535	Amortised cost

[1] Carrying amount except for the “Receivables recognised by PoC, net” item excluding restatements under IFRS 15.

Loans, cash and cash equivalents as well as other financial assets are also subject to the new impairment provisions of IFRS 9. However, the analysed impairment expense was not material either on an individual or collective basis.

In addition, IFRS 9 covers hedge accounting. As such, the risk management of an entrepreneur goes hand in hand with hedge accounting. The hedges in place as at 31 December 2017 essentially meet the conditions of IFRS 9 in respect of hedge accounting and are therefore being continued in principle subject to an amended designation. With the change to IFRS 9, the forward elements and currency basis spreads are excluded from the hedge in the case of derivative instruments designated in foreign currency hedges and reported separately directly in equity in the hedging cost reserve under other comprehensive income.

The designated spot element is reported in the hedging reserve under other comprehensive income. This change was applied from 1 January 2018 to all designated foreign currency derivatives and led to a reclassification from the hedge reserve to the hedging cost reserve of € -770 thousand as of 1 January 2018 (€ 831 thousand as of 1 January 2017). The comparative figures were restated for reporting purposes.

The most important changes resulting from **IFRS 15 Revenue from Contracts with Customers** are described below.

Change from sales revenue recognition over time to recognition at a point in time

Individual KSB construction contracts that were presented in line with project progress under the percentage-of-completion method until the end of the 2017 financial year do not meet the criteria for sales revenue recognition over time under IFRS 15. This essentially relates to cases where KSB does not have, at any time of the contractual term, an enforceable right to compensation for goods or services provided to the customer or where an asset is produced that could be put to an alternative use by KSB beyond the customer contract in force. For the construction contracts in question, this results in the recognition of sales revenue at a point in time being postponed until control is transferred to the customer. In the balance sheet, these cases result in an increase in inventories against a fall in trade receivables and PoC. The change in the method of recognising revenue for individual customer contracts resulted in a restatement of revenue reserves directly in equity as part of the transition to IFRS 15 as from 1 January 2018.

Changes in presentation in the balance sheet

Contract assets: If KSB acquires a right to payment from the supply of goods or services under a contract with a customer and this right exceeds payments already made by or due from the customer and is conditional not only on the passage of time but also on the satisfaction of an overall contractual performance obligation by KSB, this must be presented as contract assets under IFRS 15.

Contract assets at KSB derive from typical customer contracts for production and service if they meet the criteria of IFRS 15 for sales revenue recognition over time. When KSB's overall contractual performance obligation ends and there is an unconditional right to payment that depends only on the passage of time, contract assets are reclassified as trade receivables.

Contract assets are recognised in the balance sheet under "Contract assets". Under the previous accounting policies, items corresponding to contract assets were reported as "Receivables recognised by PoC, net" under "Trade receivables and PoC" in the balance sheet.

Contract liabilities: Advances received from customers that exceed the amount of goods or services previously transferred by KSB under a customer contract represent contract liabilities under IFRS 15.

Contract liabilities are recognised as a separate balance sheet item. Under the previous accounting policies, items corresponding to contract liabilities were reported as "Advances received from customers (PoC), net" under "Other financial liabilities" in the balance sheet for customer contracts presented using the percentage-of-completion method. For customer contracts not presented according to the percentage-of-completion method, the relevant item "Advances received from customers" was previously shown under "Other non-financial liabilities" in the balance sheet.

Provisions for onerous customer contracts: As a result of the first-time application of IFRS 15, a gross statement of contract assets must be prepared for customer contracts that are expected to make a loss as well as provisions for the expected losses under IAS 37 under "Other provisions" in the balance sheet. Expected losses from customer contracts were netted with receivables recognised by PoC before the introduction of IFRS 15.

The following tables show the restated amounts in the balance sheet and statement of comprehensive income arising from the application of IFRS 15 as at 31 December 2018 compared with the rules under IAS 11 and IAS 18 that applied before the change.

→ Balance sheet
→ Statement of comprehensive income

Please refer to the comments above in this section for explanation of the material reconciliation effects between recognition under IFRS 15 and recognition under IAS 11/IAS 18 as at 31 December 2018.

Balance sheet

€ thousands	31 Dec. 2018 (as reported)	Reconciliation to IAS 11 and IAS 18	31 Dec. 2018 (amounts without application of IFRS 15)
Non-current assets			
Intangible assets	91,089	–	91,089
Property, plant and equipment	496,659	–	496,659
Non-current financial assets	1,773	–	1,773
Other non-financial assets	2,914	–	2,914
Investments accounted for using the equity method	23,855	–	23,855
Deferred tax assets	80,391	– 2,851	77,540
Current assets			
Inventories	544,430	– 32,192	512,238
Contract assets	74,499	– 74,499	–
Trade receivables (and PoC)	518,116	143,458	661,574
Other financial assets	103,388	–	103,388
Other non-financial assets	49,504	–	49,504
Cash and cash equivalents	255,545	–	255,545
Total assets	**2,242,163**	**33,916**	**2,276,079**
Equity			
Subscribed capital	44,772	–	44,772
Capital reserve	66,663	–	66,663
Revenue reserves	577,756	6,854	584,610
Equity attributable to shareholders of KSB SE & Co. KGaA	689,191	6,854	696,045
Non-controlling interests	167,600	245	167,845
Non-current liabilities			
Deferred tax liabilities	10,252	2,077	12,329
Provisions for employee benefits	578,640	–	578,640
Other provisions	1,377	–	1,377
Financial liabilities	30,099	–	30,099
Current liabilities			
Provisions for employee benefits	9,287	–	9,287
Other provisions	83,557	– 10,292	73,265
Financial liabilities	48,777	–	48,777
Contract liabilities	157,389	– 157,389	–
Trade payables	270,212	–	270,212
Other financial liabilities	32,767	–	32,767
Other non-financial liabilities	154,689	192,421	347,110
Income tax liabilities	8,326	–	8,326
Total equity and liabilities	**2,242,163**	**33,916**	**2,276,079**

Statement of comprehensive income

€ thousands	31 Dec. 2018 (as reported)	Reconciliation to IAS 11 and IAS 18	31 Dec. 2018 (amounts without application of IFRS 15)
Sales revenue	**2,245,948**	**11,457**	**2,257,405**
Changes in inventories	22,554	– 6,042	16,512
Work performed and capitalised	7,332	–	7,332
Total output of operations	**2,275,834**	**5,415**	**2,281,249**
Other income	33,050	–	33,050
Cost of materials	– 934,545	–	– 934,545
Staff costs	– 765,462	–	– 765,462
Depreciation and amortisation	– 104,491	–	– 104,491
Other expenses	– 416,869	–	– 416,869
Other taxes	– 12,815	–	– 12,815
Finance income	4,893	–	4,893
Finance expense	– 16,544	–	– 16,544
Income from / expense to investments accounted for using the equity method	2,510	–	2,510
Earnings before income tax	**65,561**	**5,415**	**70,976**
Taxes on income	– 41,644	– 1,186	– 42,830
Earnings after income tax	**23,917**	**4,229**	**28,146**
Diluted and basic earnings per ordinary share (€)	6.26	1.10	7.36
Diluted and basic earnings per preference share (€)	6.64	1.17	7.81
Earnings after income tax	**23,917**	**4,229**	**28,147**
Remeasurement of defined benefit plans	– 10,736	–	– 10,736
Taxes on income	3,341	–	3,341
Expense and income recognised directly in equity and not reclassified to profit or loss in subsequent periods	**– 7,395**	**–**	**– 7,395**
Currency translation differences	– 13,276	–	– 13,276
Changes in the fair value of financial instruments	– 5,571	–	– 5,571
Taxes on income	1,665	–	1,665
Changes in the fair value of financial instruments Hedging cost reserve	– 53	–	– 53
Taxes on income	18	–	18
Expense and income recognised directly in equity and reclassified to profit or loss in subsequent periods	**– 17,217**	**–**	**– 17,217**
Other comprehensive income	**– 24,612**	**–**	**– 24,612**
Comprehensive income	**– 695**	**4,229**	**1,304**

IV. BALANCE SHEET DISCLOSURES

1 Intangible assets

Statement of changes in intangible assets

€ thousands	Concessions, industrial property and similar rights and assets, as well as licences in such rights and assets		Goodwill		Internally generated intangible assets		Advance payments		Intangible assets Total	
Historical cost	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Balance at 1 January	71,883	71,167	103,210	104,189	–	–	25,311	15,781	**200,404**	**191,137**
Changes in consolidated Group	1,241	28	2,254	–	–	–	–	–	**3,495**	**28**
Currency translation adjustments	– 552	– 2,014	– 167	– 813	–	–	–	–	**– 719**	**– 2,827**
Other	2,093	– 6	274	–	–	–	– 72	–	**2,295**	**– 6**
Additions	2,596	2,767	–	–	9,187	–	1,228	9,692	**13,011**	**12,459**
Disposals	– 5,780	– 285	–	– 166	–	–	– 1,000	–	**– 6,780**	**– 451**
Reclassifications	3,300	226	–	–	21,558	–	– 24,694	– 162	**164**	**64**
Balance at 31 December	74,781	71,883	105,571	103,210	30,745	–	773	25,311	**211,870**	**200,404**
Accumulated depreciation and amortisation	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Balance at 1 January	59,680	57,294	32,670	27,247	–	–	–	–	**92,350**	**84,541**
Currency translation adjustments	– 481	– 1,441	395	– 132	–	–	–	–	**– 86**	**– 1,573**
Other	301	– 6	– 68	– 1	–	–	–	–	**233**	**– 7**
Additions	4,513	4,114	28,194	5,556	563	–	–	–	**33,270**	**9,670**
Disposals	– 5,002	– 281	–	–	–	–	–	–	**– 5,002**	**– 281**
Reclassifications	16	–	–	–	–	–	–	–	**16**	**–**
Balance at 31 December	59,027	59,680	61,191	32,670	563	–	–	–	**120,781**	**92,350**
Carrying amount at 31 December	**15,754**	**12,203**	**44,380**	**70,540**	**30,182**	**–**	**773**	**25,311**	**91,089**	**108,054**

The additions to intangible assets amounting to € 13.0 million (previous year: € 12.5 million) primarily concerned, as in the previous year, advance payments and own work capitalised for a new software to be deployed in Sales.

The "Concessions, industrial property and similar rights and assets, as well as licences in such rights and assets" item includes € 10.6 million (previous year: € 8.3 million) of software including software licences valid for a limited period. As in the previous year, there are no restrictions on ownership or use.

KSB reported internally generated intangible assets of € 30,182 thousand, which largely related to projects for the KSBase sales software in development.

KSBase is a new selection software for the standard pump range. KSBase derives from acquired licences that have yet not been implemented as functional, as the requirements to be met by the software changed considerably in the past few years. These changes also mean a much higher share of programming by internal KSB staff, or that external resources must be bought in through service contracts. Both meant that the risk of successfully introducing the software and therefore the production risk has been transferred to KSB. As a result, the assets of the KSBase project were reclassified into internally generated intangible assets in the 2018 financial year.

In the reporting year, advance payments for intangible assets of € 1,000 thousand were derecognised (previous year: none). These relate to software that is no longer used due to changed requirements. Furthermore, as in the previous year, no impairment losses on other intangible assets were recognised in the reporting year.

As in the previous year, no product-related development costs were capitalised in the financial year because not all of the comprehensive recognition criteria defined in IAS 38 were met.

The carrying amounts of the cash-generating units in connection with the impairment testing of goodwill do not contain any items relating to taxes or financing activities.

To determine the discount factor, the weighted average cost of capital (WACC) method is applied in conjunction with the capital asset pricing model (CAPM), taking into account a peer group. Under this method, first the cost of equity is determined using CAPM and the borrowing costs are defined, and then the individual capital components are weighted in accordance with the capital structure taking account of the peer group. The peer group information includes aspects like beta factors, capital structure data and borrowing costs. The peer group includes companies that are similar to the KSB Group in terms of industry, size and activity. To account for changes in market parameters, the composition of the peer group is reviewed at regular intervals and adjusted if necessary (e.g. changes in the business model of either the company, the cash-generating unit or the comparable company being looked at).

The interest rate for risk-free 30-year Bunds was used as a base rate. This rate was 1.0 % in the year under review (previous year: 1.25 %). The market risk premium was set at 5.75 %, which was unchanged on the previous year, with a beta factor of 0.90 (previous year: 0.94). In addition, country-specific tax rates and country risk premiums are taken into account individually for each cash-generating unit (CGU). Growth rates of 0.00 % and 1.25 % (previous year: 0.75 % to 1.25 %) were used in the financial year. The regular review of the peer group did not generate any new findings in relation to the business models of comparative companies. The peer group for examining the weighted capital cost factor therefore remains the same as in the previous year.

Discount rates

Before taxes in % (value in use)	30 Sept. 2018	30 Sept. 2017
Companies in Germany	7.9 – 8.4	8.7 – 8.8
Companies in the Netherlands	7.7	8.3
Companies in the USA	7.8	9.7
Companies in South Africa	11.4	12.2
Companies in South Korea	8.2	8.7
Companies in the rest of Europe	7.5 – 11.1	8.2 – 13.8

Goodwill

Name of CGU / € thousands	31 Dec. 2018	31 Dec. 2017
DP industries B.V., the Netherlands	18,285	18,285
Dynamik-Pumpen GmbH, Germany	3,150	3,150
Uder Elektromechanik GmbH, Germany	2,980	2,980
KSB Finland Oy, Finland	2,603	2,603
KSB Dubric, Inc., USA	2,405	–
KSB Pumps (S.A.) (Pty) Ltd., South Africa	1,808	2,010
KSB Seil Co., Ltd., South Korea	758	21,665
Société de travaux et Ingénierie Industrielle (ST II), France	–	5,689
KSB Service Energie S.A.S.U., France	–	1,412
	31,989	**57,794**
Other 17 (previous year: 16) companies	12,391	12,746
Total	**44,380**	**70,540**

The reference date for carrying out the goodwill impairment test is 30 September every year. When assessing the indications for impairment of assets, it was found that the carrying amount of net assets at KSB exceeds market capitalisation. On that basis, the goodwill impairment test was repeated as at the reporting date 31 December 2018. Impairment was recalculated

Impairment loss on goodwill (31 December 2018)

Name of CGU	Segment	Discount factor	Recoverable amount in € thousands	Impairment loss in € thousands
Total 31 Dec. 2018				
Société de travaux et Ingénierie Industrielle (ST II) / KSB SERVICE COTUMER, France	Service	8.8 %	1,433	6,188
KSB Service Energie S.A.S.U., France	Service	8.7 %	4,538	1,412
KSB Seil Co., Ltd., South Korea	Valves	8.7 %	16,371	20,599
Total 31 Dec. 2017				
KSB Seil Co., Ltd., South Korea	Valves	7.3 %	41,662	5,556

using the capital cost factor as at 31 December 2018; resulting increased impairment losses were taken into account.

→ Impairment loss on goodwill

In KSB's view, the impairment on two French cash-generating units stems from dependence on one individual major customer. The units are bound to its procurement policy and economic situation. The reduction in the proportion of nuclear energy used in the electricity mix also exacerbates the situation.

The business performance of the cash-generating unit in South Korea, KSB Seil Co., Ltd., remained generally limited. In KSB's estimation, this is attributable to its considerable reliance on the economic development of the long-cycle shipbuilding industry. Performance is heavily dependent on this sector which turned out weaker than forecast. Business is expected to recover in the short term, and then remain stable over the medium term.

The impairment loss will be reported in the income statement under "Depreciation and amortisation".

→ Detailed information on key goodwill items

For the annual impairment test, the assumptions presented in the "Basic assumptions for goodwill considered material" table were made regarding the development of order intake, sales revenue and operating earnings for goodwill deemed to be material.

→ Basic assumptions for goodwill considered material

Detailed information on key goodwill items (30 September 2018)

Name of CGU	Method	Carrying amount of goodwill (€ million)	Percentage of total goodwill	Discount rate	Growth rate	Underlying assumptions, corporate planning	Method for assessing the value of the underlying assumption
KSB Seil Co., Ltd., South Korea	Value in use	21.4 (before depreciation / amortisation)	48 %	8.2 % before tax	0.00 %	■ Stagnating shipbuilding market over the medium term ■ Little change in exchange rates	Consideration of macro-economic key data and internal estimates of the relevant purchasing and sales departments
DP industries B.V., the Netherlands	Value in use	18.3	41 %	7.7 % before tax	1.25 %	■ Low to significant market growth rates	Consideration of macro-economic key data and internal estimates of the relevant purchasing and sales departments

Basic assumptions for goodwill considered material

Name of CGU	Order intake	Sales revenue	EBIT	Planning time horizon
KSB Seil Co., Ltd., South Korea	Stagnating growth over the medium term	Stagnating growth over the medium term	Stagnating growth over the medium term, as a result of sales revenue and cost planning	5 years
DP industries B.V., the Netherlands	Constant growth, on average	Constant growth, on average	Moderate growth, on average, as a result of sales revenue and cost planning	5 years

As well as impairment testing, sensitivity analyses were conducted for each cash-generating unit. The table shows the total amount of impairment that would have arisen if the respective sensitivity had been applied.

→ Sensitivities

There would have been no additional impairment requirement for other cash-generating entities, even after taking sensitivities into account.

Sensitivities

Name of CGU / € thousands	Sensitivity 1	Sensitivity 2	Sensitivity 3
31 Dec. 2018			
Société de travaux et Ingénierie Industrielle (ST II) / KSB SERVICE COTUMER, France	6,676	6,257	n / a
KSB Service Energie, France	2,040	1,466	n / a
KSB Seil, Busan, South Korea	23,290	21,066	31,714
KSB Italia S.p.A., Italy	2,737	0	n / a
SPI Energie, France	332	0	n / a
Dynamik-Pumpen GmbH, Germany	132	0	n / a
KAGEMA Industrieausrüstungen GmbH, Germany	135	0	n / a
31 Dec. 2017			
KSB Seil, Busan, South Korea	7,507	6,642	7,964

2 Property, plant and equipment

Statement of changes in property, plant and equipment

€ thousands	Land and buildings		Plant and machinery		Other equipment, operating and office equipment		Advance payments and assets under construction		Property, plant and equipment	
Historical cost	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Balance at 1 January	381,587	372,075	593,154	583,604	225,103	215,203	24,071	31,049	**1,223,915**	**1,201,931**
Changes in consolidated Group	1,282	149	25	605	109	132	–	–	**1,416**	**886**
Currency translation adjustments	– 1,991	– 13,032	– 822	– 20,397	– 3,481	– 7,892	– 1,092	– 1,813	**– 7,386**	**– 43,134**
Other	25,324	– 68	– 22,901	– 2,073	225	2,586	– 4	–	**2,644**	**445**
Additions	8,660	18,226	21,472	29,041	20,315	21,762	16,146	20,402	**66,593**	**89,431**
Disposals	– 641	– 3,989	– 9,168	– 10,596	– 12,894	– 10,972	– 20	– 23	**– 22,723**	**– 25,580**
Reclassifications	2,610	8,226	12,426	12,970	– 1,224	4,284	– 13,976	– 25,544	**– 164**	**– 64**
Balance at 31 December	416,831	381,587	594,186	593,154	228,153	225,103	25,125	24,071	**1,264,295**	**1,223,915**
Accumulated depreciation and amortisation	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Balance at 1 January	156,455	153,019	402,104	394,668	159,142	152,638	–	–	**717,701**	**700,325**
Currency translation adjustments	315	– 3,962	1,013	– 11,936	– 2,152	– 5,449	–	–	**– 824**	**– 21,347**
Other	18,540	– 603	– 17,846	– 2,161	277	2,641	–	–	**971**	**– 123**
Additions	13,712	10,466	38,417	31,910	19,092	18,547	–	–	**71,221**	**60,923**
Disposals	– 285	– 2,132	– 8,685	– 9,581	– 12,447	– 10,364	–	–	**– 21,417**	**– 22,077**
Reclassifications	169	– 333	1,442	– 796	– 1,627	1,129	–	–	**– 16**	**–**
Balance at 31 December	188,906	156,455	416,445	402,104	162,285	159,142	–	–	**767,636**	**717,701**
Carrying amount at 31 December	**227,925**	**225,132**	**177,741**	**191,050**	**65,868**	**65,961**	**25,125**	**24,071**	**496,659**	**506,214**

Assets resulting from finance leases are recognised as fixed assets in accordance with IAS 17, and corresponding financial liabilities are recognised. The carrying amount of these capitalised assets amounts to € 1,464 thousand (previous year: € 1,382 thousand), of which € 648 thousand (previous year: € 429 thousand) relate to land and buildings and € 816 thousand (previous year: € 940 thousand) to other equipment, operating and office equipment. There were no finance leases for plant and machinery in the year under review (previous year: € 13 thousand).

Disposals of intangible assets and items of property, plant and equipment resulted in book gains of € 1,618 thousand (previous year: € 12,319 thousand) and book losses of € 661 thousand (previous year: € 3,169 thousand). The book gains and losses are reported in the income statement under other income and other expenses.

In the year under review, impairment losses of € 10,580 thousand (previous year: none) were recognised on property, plant and equipment, as no more long-term cash flows were expected from these assets for two valve type series. This impairment is reported in the income statement under depreciation and amortisation. Depreciation / amortisation relates to the Valves segment. Impairment was determined using the discounted cash flow model and a discount rate of 7.1 %.

3 Non-current financial assets

€ thousands	31 Dec. 2018	31 Dec. 2017
Loans	1,113	2,490
Financial instruments	660	657
Other investments	–	2,985
	1,773	6,132

€ 535 thousand of the loans are loans to equity investments (previous year: € 186 thousand). Due to the first-time application of IFRS 9 in the year under review, other investments are no longer allocated to financial assets. They are reported under non-current other non-financial assets.

4 Other non-financial assets

€ thousands	31 Dec. 2018	31 Dec. 2017
Other investments	2,914	–
	2,914	–

Other investments are investments in affiliates that were not consolidated due to there being no material impact. There were no write-downs applied in the year under review (previous year: € 850 thousand). Under IFRS 9, other investments are reported under other non-financial assets. They were previously allocated to financial assets.

5 Investments accounted for using the equity method

The following table lists the KSB Group's material joint ventures. "Seat" refers to the country in which the main activity is performed. All joint ventures and associates are accounted for using the equity method and can also be found in the list of shareholdings in these Notes to the Consolidated Financial Statements. The share of capital corresponds to the share of voting rights.

→ Material joint ventures

Neither of the two material joint ventures is listed on a stock market, which is why there is no active market.

Summarised financial information on these material joint ventures of the KSB Group is provided below.

→ Summarised balance sheet
→ Summarised statement of comprehensive income
→ Reconciliation to carrying amount of group share in joint ventures
→ Summarised information on joint ventures that are immaterial individually

As in the previous year, there are no pro rata losses that have not been recognised from the consolidation at equity.

Material joint ventures

Name and seat	Capital share	Nature of the entity's relationship
KSB Pumps Arabia Ltd., Saudi Arabia	50.00 %	KSB Pumps Arabia Ltd. in Riyadh, Saudi Arabia, offers a wide range of services and activities for the energy market as well as in water, waste water and building services applications. The portfolio includes business development and marketing, supply chain management, production of pressure booster systems and pump sets, sale of pumps, valves and systems and technical service activities. KSB Pumps Arabia Ltd. is important for the growth of the Group in the Saudi Arabian market.
Shanghai Electric-KSB Nuclear Pumps and Valves Co., Ltd. China	45.00 %	Shanghai Electric-KSB Nuclear Pumps and Valves Co., Ltd. in Shanghai, China, produces suitable auxiliary pumps for the secondary coolant circuits and modern reactor coolant pumps for the primary cooling circuits of nuclear power stations. Shanghai Electric-KSB Nuclear Pumps and Valves Co., Ltd. is a strategic partnership on the part of the Group, through which KSB is participating in the expansion of energy capacity in China and other Asian markets.

Summarised balance sheet

€ thousands	KSB Pumps Arabia Ltd. 31 Dec. 2018	KSB Pumps Arabia Ltd. 31 Dec. 2017	Shanghai Electric-KSB Nuclear Pumps and Valves Co., Ltd. 31 Dec. 2018	Shanghai Electric-KSB Nuclear Pumps and Valves Co., Ltd. 31 Dec. 2017
Non-current assets	10,678	9,958	73,907	79,251
Current assets	39,143	36,141	126,679	102,249
of which cash and cash equivalents	263	157	17,928	7,116
Non-current liabilities	– 4,896	– 4,619	– 25,523	– 35,836
of which non-current financial liabilities (excluding trade payables and provisions)	– 3,487	– 3,334	– 25,523	–
Current liabilities	– 26,634	– 26,193	– 145,667	– 116,777
of which current financial liabilities (excluding trade payables and provisions)	– 5,090	– 4,989	– 26,793	– 37,227
Net assets	**18,291**	**15,287**	**29,396**	**28,887**

Summarised statement of comprehensive income

€ thousands	KSB Pumps Arabia Ltd. 2018	KSB Pumps Arabia Ltd. 2017	Shanghai Electric-KSB Nuclear Pumps and Valves Co., Ltd. 2018	Shanghai Electric-KSB Nuclear Pumps and Valves Co., Ltd. 2017
Sales revenue	34,916	39,056	55,840	53,331
Depreciation / amortisation	782	590	4,116	4,223
Interest income	–	11	62	35
Interest expense	– 553	– 608	– 2,613	– 2,617
Earnings from continuing operations	2,591	1,872	775	1,569
Taxes on income	– 46	– 680	–	– 592
Earnings after taxes from continuing operations	**2,545**	**1,192**	**775**	**977**
Earnings after taxes from discontinued operations	–	–	–	–
Other comprehensive income	861	– 2,941	– 266	– 1,870
Comprehensive income	**3,406**	**– 1,749**	**509**	**– 893**
Dividends received from joint ventures	**201**	**951**	**–**	**–**

Reconciliation to carrying amount of group share in joint ventures

€ thousands	KSB Pumps Arabia Ltd. 2018	KSB Pumps Arabia Ltd. 2017	Shanghai Electric-KSB Nuclear Pumps and Valves Co., Ltd. 2018	Shanghai Electric-KSB Nuclear Pumps and Valves Co., Ltd. 2017
Net carrying amount at 1 January	15,287	18,938	28,887	29,780
Earnings after income tax	2,545	1,192	775	977
Distribution of dividends	– 402	– 1,902	–	–
Other comprehensive income	861	– 2,941	– 266	– 1,870
Net carrying amount at 31 December	**18,291**	**15,287**	**29,396**	**28,887**
Investment in joint venture (50 % / 45 %)	9,145	7,643	13,228	12,999
Elimination of intercompany profit and loss	–	–	– 3,349	– 2,969
Goodwill	–	–	–	–
Carrying amount at 31 December	**9,145**	**7,643**	**9,879**	**10,030**

Summarised information on joint ventures that are immaterial individually

€ thousands	Joint ventures 2018	Associates 2018	Total 2018	Joint ventures 2017	Associates 2017	Total 2017
Group share of earnings from continuing operations	140	592	732	211	583	794
Group share of other comprehensive income	144	23	167	– 460	–	– 460
Group share of comprehensive income	284	615	899	– 249	583	334
Total carrying amounts of Group shares in these companies	**3,631**	**1,200**	**4,831**	**3,347**	**1,165**	**4,512**

6 Inventories

€ thousands	31 Dec. 2018	31 Dec. 2017
Raw materials, consumables and supplies	182,134	162,577
Work in progress	184,158	161,394
Finished goods and goods purchased and held for resale	162,128	121,421
Advance payments	16,010	16,485
	544,430	**461,877**

€ 61,614 thousand (previous year: € 51,933 thousand) of the inventories is carried at net realisable value. The impairment losses recognised as an expense in the reporting period amount to € 10,513 thousand (previous year: € 11,969 thousand). Due to new estimates, write-downs totalling € 810 thousand (previous year: € 1,303 thousand) were reversed where the current net realisable value was higher than the prior-period value. Inventories amounting to € 911,991 thousand (previous year: € 887,869 thousand) were recognised as an expense in the reporting period.

7 Contract assets, trade receivables and other financial and non-financial assets

→ Contract assets, trade receivables and other financial and non-financial assets

The "Receivables recognised by PoC, net" item is no longer used following the implementation of IFRS 15 as at 1 January 2018. KSB's claims to consideration in exchange for goods or services transferred to customers are reported in the new "Contract assets" balance sheet item if the right to payment is not only conditional on the passage of time but also on the satisfaction of an overall contractual performance obligation by KSB. The opening balance sheet value of contract assets as at 1 January 2018 was € 69,645 thousand. The balance of contract assets at the end of the year under review was at a comparable level at € 74,499 thousand.

Impairment losses on trade receivables from third parties amounted to € 33,943 thousand (previous year: € 33,995 thousand). There were impairment losses of € 499 thousand on trade receivables from other investments (previous year: € 839 thousand). Impairment losses on contract assets amounted to € 190 thousand.

Impairment losses on trade receivables and contract assets include the individual impairment allowance (EWB) and risk provisions for expected credit losses (ECL). The following table shows the reconciliation as at the first-time adoption date (31 December 2017 to 1 January 2018) and the change within the 2018 financial year.

→ Reconciliation of impairment losses

The expected default risk determined using the simplified impairment model is distributed over the gross age structure of trade receivables excluding hedged receivables as shown below:

→ Risk provision for expected credit losses by maturity of trade receivables

Contract assets, trade receivables and other financial and non-financial assets

€ thousands	31 Dec. 2018	31 Dec. 2017
Contract assets	**74,499**	**–**
Trade receivables	**518,116**	**613,311**
Trade receivables from third parties	483,626	480,928
Trade receivables from other investments, associates and joint ventures	34,490	32,341
thereof from other investments	5,384	3,524
thereof from associates	7	280
thereof from joint ventures	29,098	28,537
Receivables recognised by PoC, net	–	100,042
Receivables recognised by PoC, gross	–	130,021
Advances received from customers	–	– 29,979
Other financial assets	**103,388**	**116,970**
Receivables from loans to other investments, associates and joint ventures	12,661	13,344
Currency forwards	1,070	5,074
Other receivables and other current assets	89,657	98,552
Other non-financial assets	**49,504**	**37,402**
Other tax assets	40,124	30,830
Deferred income	9,380	6,572

Reconciliation of impairment losses

		Trade receivables from third parties		Contract assets
€ thousands	**Total**	**EWB**	**ECL***	**ECL**
31 Dec. 2017 IAS 39	**– 33,995**	**– 27,746**	**– 6,249**	**–**
Restatement under IFRS 9	– 1,486	–	– 1,486	– 79
1 Jan. 2018	**– 35,481**	**– 27,746**	**– 7,735**	**– 79**
Change in financial year				
Additions	– 7,399	– 7,399	–	– 111
Utilised	3,616	3,616	–	–
Reversals	5,321	2,170	3,151	–
31 Dec. 2018	**– 33,943**	**– 29,359**	**– 4,584**	**– 190**

* Lump-sum individual impairment allowance in the previous year

Risk provision for expected credit losses by maturity of trade receivables

31 Dec. 2018		Not overdue	Up to 30 days	Up to 90 days	Up to 180 days	Up to 360 days	Over 360 days	Total
Expected default risk	in %	0.3	1.1	2.0	3.0	3.2	4.2	
Gross trade receivables from third parties excluding hedged receivables	€ thousands	323,241	52,016	37,208	18,870	13,754	21,254	**466,343**
ECL	€ thousands	– 830	– 554	– 753	– 560	– 439	– 893	**– 4,029**

Furthermore, the balance of risk provisions for expected credit losses includes € 555 thousand, which relate to hedged receivables.

Risk provision for expected credit losses of contract assets

31 Dec. 2018		Not overdue
Expected default risk	in %	0.3
Gross contract assets	€ thousands	74,689
ECL	€ thousands	– 190

Impairment losses on receivables from loans to other investments amounted to € 3,172 thousand (previous year: € 3,127 thousand). No impairment losses were applied on receivables from joint ventures or associates, as in the previous year.

Other receivables and other current assets include hedges of credit balances prescribed by law for partial retirement arrangements and long-term working time accounts of the German Group companies in the amount of € 24,700 thousand (previous year: € 20,900 thousand).

€ 20,964 thousand (previous year: € 23,681 thousand) of all receivables and other assets fall due after more than one year.

8 Cash and cash equivalents

Cash and cash equivalents are term deposits with short maturities and call deposits, and also current account balances.

9 Equity

There was no change in the share capital of KSB as against the previous year. In accordance with the Articles of Association, it totals € 44,771,963.82 and, as in the previous year, is composed of 886,615 ordinary shares and 864,712 preference shares. Each no-par-value share represents an equal notional amount of the share capital. The preference shares carry separate cumulative preferred dividend rights and progressive additional dividend rights. All shares are no-par-value bearer shares. The individual shares have no par value.

The capital reserve results from the appropriation of premiums from capital increases in previous years.

In addition to revenue reserves from previous years, the revenue reserves include currency translation adjustments, consolidation effects, remeasurements of defined benefit plans under IAS 19 and changes in the fair value of interest rate derivatives taken directly to equity. These resulted in deferred tax assets in the amount of € 75,366 thousand (previous year: € 70,477 thousand) and deferred tax liabilities in the amount of € 24 thousand (previous year: € 187 thousand). Due to the new IFRS 9 and IFRS 15 accounting principles applied in the financial year, there was a cumulative decrease in revenue reserves of € 9,218 thousand as a result of the changeover. The impact on the total equity of the KSB Group amounted to € 9,225 thousand.

The effect on revenue reserves was as follows as at 1 January 2018:

Impact on revenue reserves

€ thousands	
Increase in impairment losses (net) of financial assets and contract assets under IFRS 9[1]	– 1,564
Increase in deferred tax assets[1]	562
Restatement of revenue reserves due to first-time application of IFRS 9	**– 1,002**
Cumulative impact on assets and liabilities under IFRS 15[1] excluding deferred tax	– 11,070
Balance from change in deferred tax[1]	2,854
Restatement of revenue reserves due to first-time application of IFRS 15	**– 8,216**
Restatement of revenue reserves on 1 January under IFRS 9 and IFRS 15	**– 9,218**

[1] See the “Restatements in the opening balance sheet” table in Section III. Accounting Policies in the “Impact of the introduction of new accounting standards” sub-section.

A total of € 13,360 thousand (dividend of € 7.50 per ordinary share and € 7.76 per preference share) was paid from equity by resolution of the Annual General Meeting of the Group's parent company KSB SE & Co. KGaA, Frankenthal, on 16 May 2018.

Non-controlling interests relate primarily to PAB GmbH, Frankenthal, and the interests it holds, as well as to the companies in India and China. KSB FINANZ S.A., Echternach, holds a 51 % interest in PAB GmbH, while Johannes und Jacob Klein GmbH, Frankenthal, holds a 49 % interest.

Details of the changes in equity accounts and non-controlling interests are presented in the Statement of Changes in Equity.

The proposal on the appropriation of the net retained earnings of KSB SE & Co. KGaA calculated in accordance with HGB [*Handelsgesetzbuch* – German Commercial Code] is shown at the end of these Notes.

Capital disclosures

Sufficient financial independence is a key requirement for safeguarding KSB's continued existence in the long term. Obtaining the necessary funds for ongoing business operations is also extremely important for KSB. The control parameter for KSB until the end of the 2018 financial year was the net financial position that is derived from the balance of interest-bearing financial liabilities and interest-bearing financial assets (current and non-current financial instruments, interest-bearing loans to companies accounted for using the equity method as well as companies that were not consolidated due to there being no material impact, cash and cash equivalents and receivables from deposits). One objective is to avoid net debt. KSB regularly reviews the performance of this key indicator. Due to the increase in inventory items, the net financial position of € 255 million (previous year: € 288 million) was € 45 million below the target figure of € 300 million.

10 Provisions

→ Composition of provisions
→ Development of individual provision categories

In the 2018 financial year, the accounting principles were amended with the effect that some items previously allocated to current provisions for other employee benefits or current other provisions are now classified as liabilities. This relates in particular to obligations to employees arising from overtime, annual leave entitlements and bonuses as well as liabilities from outstanding invoices. To a lesser extent, such liabilities were also identified in current provisions for warranty obligations and contractual penalties; due to the present certainty of their maturity and amount they were reclassified to liabilities in the new presentation as at 31 December 2017. All restated liabilities and provisions items as at 31 December 2017 are shown in the relevant table.

→ Restatement of liabilities and provisions as at 31 Dec. 2017

Please refer to Section III. Accounting Policies for further explanations.

Composition of provisions

			31 Dec. 2018			31 Dec. 2017
Changes (€ thousands)	**Total**	**Non-current**	**Current**	**Total**	**Non-current**	**Current**
Employee benefits	**587,927**	**578,640**	**9,287**	**614,908**	**606,875**	**8,033***
Pensions and similar obligations	553,573	553,573	–	586,861	586,861	–
Other employee benefits	34,354	25,067	9,287	28,047	20,014	8,033*
Other provisions	**84,934**	**1,377**	**83,557**	**70,203**	**1,397**	**68,806***
Warranty obligations and contractual penalties	45,582	–	45,582	49,812	–	49,812*
Provisions for restructuring	1,023	–	1,023	2,750	–	2,750
Miscellaneous other provisions	38,329	1,377	36,952	17,641	1,397	16,244*
	672,861	**580,017**	**92,844**	**685,111**	**608,272**	**76,839***

* Restated compared with presentation in the 2017 annual report.

Development of individual provision categories

Changes (€ thousands)	1 Jan. 2018 (application of IAS 11/18)	Restatement under IFRS 15	1 Jan. 2018 (application of IFRS 15)	Changes in consolidated Group / CTA**/Other	Utilisation/ Prepayments	Reversals	Additions	31 Dec. 2018
Employee benefits	**614,908***	**–**	**614,908**	**– 456**	**– 68,460**	**– 688**	**42,623**	**587,927**
Pensions and similar obligations	586,861	–	586,861	– 189	– 60,267	–	27,168	553,573
Other employee benefits	28,047*	–	28,047	– 267	– 8,193	– 688	15,455	34,354
Other provisions	**70,203***	**4,883**	**75,086**	**576**	**– 24,192**	**– 7,819**	**41,282**	**84,934**
Warranty obligations and contractual penalties	49,812*	–	49,812	– 411	– 18,049	– 2,271	16,501	45,582
Provisions for restructuring	2,750	–	2,750	1	– 1,745	– 1	18	1,023
Miscellaneous other provisions	17,641*	4,883	22,524	986	– 4,398	– 5,547	24,764	38,329
	685,111*	**4,883**	**689,994**	**120**	**– 92,652**	**– 8,507**	**83,905**	**672,861**

* Restated compared with presentation in the 2017 annual report.
** CTA = Currency translation adjustments

Restatement of liabilities and provisions as at 31 Dec. 2017

€ thousands	31 Dec. 2017 (as originally reported)	Restatement	31 Dec. 2017 (restated)
Current provisions for other employee benefits	81,472	– 73,439	8,033
Current provisions for warranty obligations and contractual penalties	51,275	– 1,463	49,812
Current other provisions	44,382	– 28,138	16,244
Trade payables to third parties	210,819	29,601	240,420
Current other non-financial liabilities relating to social security and liabilities to employees	48,703	73,439	122,142
Total	**436,651**	**0**	**436,651**

In the reporting year, the first-time application of IFRS 15 meant that for customer contracts that are expected to make a loss, contract assets and provisions for expected losses were stated gross under other provisions. The year-on-year rise in other provisions is specifically due to the fact that in the previous year, before application of IFRS 15, expected losses from customer contracts were recognised through “Receivables recognised by PoC, net”. The opening balance sheet value of other provisions as at 1 January 2018 increased by € 4,883 thousand in this connection.

Provisions for pensions and similar obligations

The pension obligations in the KSB Group include defined contribution and defined benefit plans and contain both obligations from current pensions and future pension benefit entitlements.

For employees of Group companies in Germany there is a defined contribution plan under the German statutory pension insurance scheme into which the employer must pay the currently valid pension contribution rate. Contributions to state pension insurance funds recognised in the income statement totalled € 26,778 thousand (previous year: € 25,989 thousand). € 7,877 thousand (previous year: € 7,446 thousand) was spent on defined contribution schemes for employees in other countries in the year under review.

The obligations for defined benefit pension plans for employees of the Group are mainly due to pension obligations in Germany, as well as in France, the United States and Switzerland.

More than 90 % of the defined benefit pension plans are attributable to the German Group companies. These relate to direct commitments by the companies to their employees. The commitments are based on salary and length of service. Contributions from employees themselves are also considered. This pension provision can be broken down into purely company-financed basic provision and the top-up provision from the employer. The latter is based on the amount of own contributions and the generated return on sales before taxes on income. Both components take account of the general pension contribution (the amount of which partially depends on company performance), personal income (the relationship between pensionable income and maximum income threshold) and the annuity conversion factor (based on age). Pension benefits are paid in annual instalments of one tenth of the amount. However, under certain conditions it is also possible to make a capital payment or pay a monthly pension instead. Since the year under review, early payments of the capital amount after termination of the employment contract have also been possible.

Pension schemes in France are governed by the provisions of the respective collective agreements. The obligations are basically covered by assets that have been paid in to an external fund. At the beginning of the final quarter of each year, an actuarial report is prepared to calculate the current scope of obligation. If there is a shortfall, a compensation payment is made to the fund. Differences in the calculation parameters under local and international law ultimately result in a surplus of obligations in the Group. Upon retirement, the employees concerned receive a one-off payment from the fund.

The defined benefit pension plans in the United States are closed to new entrants. The pension benefit amount is derived from the average salary and years of service before closure of the plan. The retirement age is 65 years; from this point a monthly payment is made to the beneficiaries. The pension benefits are financed by external funds.

Pension obligations in Switzerland are predominantly based on statutory obligations. This also includes details on a minimum pension which all employees with uninterrupted contributions are entitled to by law. The employer is therefore required to pay in contributions which are high enough for the respective pension fund or insurance company to pay out these minimum amounts. As well as pension benefits, the plans encompass other benefits such as disability or survivors' benefits. Both employer and employee contributions are paid to the pension fund, with the company having to make contributions that at least match the employee contributions specified in the terms and conditions of the plan. The retirement benefits are paid out in monthly instalments, but all employees have the option to receive a (partial) capital payment.

In addition, employees in other countries are also entitled to a limited extent to retirement and partly to medical care benefits, depending mainly on the length of service and salary.

These defined benefit plans impose actuarial risks on the Group, such as the longevity risk and interest rate risk. The payments associated with the pension obligations are mostly serviced through liquidity. Plan assets are also partially available for financing these obligations. Most of the plan assets are managed by insurers who set their own appropriate investment policies.

The actuarial valuations of the present value of the defined benefit obligation (and the related current service cost and the past service cost) are measured and calculated annually on the basis of actuarial reports using the projected unit credit method (IAS 19). Plan assets are measured at fair value.

→ Balance sheet figures for defined benefit plans
→ Change in cash value of defined benefit obligations

The current and past service cost is recognised in staff costs under pension costs, and the interest cost is recognised in finance income / expense under interest and similar expenses.

The pension plans of German companies concluded before 2009 solely provided for the payment of accumulated amounts in the form of a monthly pension for life upon retirement. In an extension to the Group works agreement, a lump-sum option was added to the company pension scheme in the 2018 financial year. Under this, every employee is entitled to apply at any time during the ongoing employment contract for payment in annual instalments, as a single payment or as a pension for life. KSB has estimated how the specific workforce is likely to

Balance sheet figures for defined benefit plans

€ thousands	Defined benefit obligations (DBOs) 31 Dec. 2018	Fair value of plan assets 31 Dec. 2018	Net liability from defined benefit plans 31 Dec. 2018	Defined benefit obligations (DBOs) 31 Dec. 2017	Fair value of plan assets 31 Dec. 2017	Net liability from defined benefit plans 31 Dec. 2017
Germany	529,188	–	529,188	560,234	–	560,234
France	16,332	7,279	9,053	17,920	7,181	10,739
USA	13,411	11,253	2,158	14,217	12,066	2,151
Switzerland	12,794	11,721	1,073	17,253	15,769	1,484
Other countries	39,458	27,357	12,101	40,841	28,588	12,253
Carrying amounts	**611,183**	**57,610**	**553,573**	**650,465**	**63,604**	**586,861**

Change in cash value of defined benefit obligations

€ thousands	2018	2017
Opening balance of the defined benefit obligation (DBO) – 1 Jan.	**650,465**	**654,392**
Current service cost	8,011	9,858
Interest cost	12,837	12,844
Employee contributions	3,190	4,409
Remeasurements		
–/+ Gain/loss from the change in demographic assumptions	4,718	1,206
–/+ Gain/loss from the change in financial assumptions	1,278	–5,340
–/+ Experience-based gain/loss	818	–2,091
Benefit payments	–20,935	–18,614
Past service cost (incl. effects of settlements and curtailments)	–46,174	–218
Transfer of assets	–433	–138
Currency translation differences	192	–5,613
Changes in consolidated Group/Other	–2,784	–230
Closing balance of the defined benefit obligation (DBO) – 31 Dec.	**611,183**	**650,465**

decide on exercising the lump-sum option and has taken this into account for the measurement of pension provisions. Recognition of the exercising of this lump-sum option has resulted in income of € 46,434 thousand in total based on past service cost.

On 2 October 2018, Heubeck AG published the new Heubeck 2018 G mortality tables. These contain the latest statistics of statutory pension insurance schemes by the German Federal Statistical Office and reflect the most up-to-date developments on mortality, disability, marriage and fluctuation probabilities. In addition, the new tables take the statistically verifiable relation between life expectancy and the amount of pension paid into consideration by way of a general marking down of mortality rates. In addition, the new mortality tables reflect changed disability rates, as there has been a decline for more than ten years in the age range from 58 years.

In relation to the total volume of provisions for pensions and similar obligations, the impact of the application of the new mortality tables is not material. Provisions have increased by € 4,803 thousand as a result.

The expected contributions in the following year are forecast to be around € 10,527 thousand (previous year: € 11,448 thousand).

→ Changes in the fair value of the plan assets

Interest income is recognised in the income statement net of the DBO interest expense under interest and similar expenses and thus reported under finance income / expense.

→ Changes to the net liability of the defined benefit obligations
→ Composition of plan assets

The pension funds are endowed with the amount needed to meet the respective statutory minimum requirements.

The actual expense for plan assets amounted to € 1,093 thousand (previous year: income of € 5,109 thousand).

→ Actuarial assumptions

A mean fluctuation rate (2.0 %) continues to be applied to staff turnover for the German plans, as in the previous year. The biometric assumptions are based on the 2018G mortality tables (previous year: 2015G mortality tables) published by Prof. Klaus Heubeck, and the retirement age used for the calculations is based on the *Rentenversicherungs-Altersgrenzenanpassungsgesetz* 2007 [*RVAGAnpG* – German Act Adapting the Standard Retirement Age for the Statutory Pension Insurance System]. Other measurement parameters (e.g. cost trends in the medical care area) are not material.

The discount rate and future mortality were identified as key actuarial assumptions. As in the previous year the basis for the calculation of the sensitivities is the same method which was used for the calculation of the provisions for pensions and similar obligations.

Were the discount factor to increase by 100 basis points, the DBO would fall by € 86 million (previous year: € 102 million). A 100 basis point reduction in the discount factor would increase the DBO by € 113 million (previous year: € 131 million). It should be noted that a change in the discount factor due to

Changes in the fair value of the plan assets

€ thousands	2018	2017
Opening balance of the plan assets measured at fair value – 1 Jan.	**63,604**	**64,850**
Interest income	2,019	2,008
Remeasurements		
– / + Gain / loss from plan assets excluding amounts already recognised in interest income	– 3,922	3,101
Contributions by the employer	1,787	1,655
Contributions by the beneficiary employees	197	223
Currency translation differences	131	– 4,485
Changes in consolidated Group	–	–
Paid benefits	– 4,096	– 2,801
Other	– 2,110	– 947
Closing balance of the plan assets measured at fair value – 31 Dec.	**57,610**	**63,604**

Changes to the net liability of the defined benefit obligations

€ thousands	2018	2017
Opening balance of the net liability from defined benefit plans – 1 Jan.	**586,861**	**589,542**
Current service cost	8,011	9,858
Net interest expense	10,818	10,836
Employee contributions	2,993	4,186
Contributions by the employer	– 1,787	– 1,655
Remeasurements		
– / + Gain / loss from plan assets excluding amounts already recognised in interest income	3,922	– 3,101
– / + Gain / loss from the change in demographic assumptions	4,718	1,206
– / + Gain / loss from the change in financial assumptions	1,278	– 5,340
– / + Experience-based gain / loss	818	– 2,091
Benefit payments	– 16,839	– 15,813
Past service cost (incl. effects of settlements and curtailments)	– 46,174	– 218
Transfer of assets	– 433	– 138
Currency translation differences	61	– 1,128
Changes in consolidated Group / Other	– 674	717
Closing balance of the net liability from defined benefit plans – 31 Dec.	**553,573**	**586,861**

Composition of plan assets

€ thousands	Quoted market price in an active market 31 Dec. 2018	No quoted market price in an active market 31 Dec. 2018	Total 31 Dec. 2018	Quoted market price in an active market 31 Dec. 2017	No quoted market price in an active market 31 Dec. 2017	Total 31 Dec. 2017
Equity instruments (shares)	20,746	–	**20,746**	19,660	–	**19,660**
Debt instruments (loans)	21,824	70	**21,894**	16,782	–	**16,782**
Government bonds	6,625	–	6,625	8,817	–	8,817
Corporate bonds	15,199	70	15,269	7,965	–	7,965
Currency forwards	–	–	**–**	–	–	**–**
Money market investments	1,606	277	**1,883**	7,611	–	**7,611**
Real estate	3,377	–	**3,377**	520	–	**520**
Insurance contracts	–	6,098	**6,098**	–	16,319	**16,319**
Bank credit balances	792	12	**804**	1,482	–	**1,482**
Other investments	1,528	1,280	**2,808**	870	360	**1,230**
	49,873	**7,737**	**57,610**	**46,925**	**16,679**	**63,604**

Actuarial assumptions

	Discount rate		Assumed rate of salary increase		Assumed rate of pension increase	
in %	31 Dec. 2018	31 Dec. 2017	31 Dec. 2018	31 Dec. 2017	31 Dec. 2018	31 Dec. 2017
Germany	1.8	1.9	2.7	2.7	1.9	1.9
France	1.6	1.35	2.8	3.0	–	–
USA	4.0	3.4	–	–	–	–
Switzerland	1.0	0.6	1.0	1.0	–	–
Other countries	1.25 – 13.25	0.75 – 10.4	1.5 – 21.0	1.0 – 11.0	1.5 – 14.5	1.5 – 3.0

Expected pension benefit payments

€ thousands at 31 Dec. 2018	2019	2020	2021	2022	2023
Expected payments	27,711	23,953	25,900	23,630	25,576

€ thousands at 31 Dec. 2017	2018	2019	2020	2021	2022
Expected payments	23,964	21,181	21,241	22,230	21,716

particular financial effects (such as compound interest) does not affect the development of the DBO on a straight-line basis. Were life expectancy to increase by 1 year, the DBO would increase by € 22 million (previous year: € 20 million).

Additionally, the individual actuarial assumptions are mutually dependent, but these interdependencies are not taken into account in the sensitivity analysis.

On 31 December 2018 the weighted average term of the defined benefit obligations was 24 years, as in the previous year.
→ Expected pension benefit payments

Other employee benefits

Provisions for other employee benefits relate primarily to anniversary and partial retirement obligations.

Other provisions

The provisions for warranty obligations and contractual penalties cover the statutory and contractual obligations to customers and are based on estimates prepared using historical data for similar products and services. In the year under review, they amounted to € 45,582 thousand (restated previous year's figure: € 49,812 thousand).

Other provisions primarily contain provisions for expected losses of € 25,900 thousand (previous year: € 4,656 thousand). These include provisions for a legacy project in the United Kingdom as well as provisions set aside due to the political situation in Iran. They also cover risks of litigation and legal proceedings if the recognition criteria for a provision are met (€ 8.6 million; previous year: € 5.3 million). These are usually risks arising from legal disputes in relation to operations or, in rare cases, disputes with government agencies or personnel matters. In order to determine the amount of the provisions, the facts related to each case, the size of the claim, the results of comparable proceedings and independent legal opinions are considered in individual cases along with assumptions regarding the probability of occurrence and the range of potential claims.

€ 16,571 thousand (previous year: € 18,489 thousand) of the other provisions are expected to become cash-effective after more than one year.

11 Liabilities

Non-current liabilities

€ thousands	31 Dec. 2018	31 Dec. 2017
Financial liabilities	**30,099**	**54,333**
Loan against borrower's note	21,976	47,964
Bank loans and overdrafts	6,967	5,468
Finance lease liabilities	826	574
Other	330	327

Current liabilities

€ thousands	31 Dec. 2018	31 Dec. 2017
Financial liabilities	**48,777**	**21,960**
Loan against borrower's note	26,000	–
Bank loans and overdrafts	21,990	21,275
Finance lease liabilities	404	353
Liabilities to other investments, associates and joint ventures	320	322
Other	63	10
Trade payables	**270,212**	**241,630***
Trade payables to third parties	264,675	240,420*
Liabilities to other investments, associates and joint ventures	5,537	1,210
Contract liabilities	**157,389**	**–**
Other financial liabilities	**32,767**	**81,467**
Advances received from customers PoC (net)	–	49,401
Advances received from customers PoC (gross)	–	88,172
Receivables recognised by PoC	–	– 38,771
Currency forwards	3,731	1,883
Miscellaneous other financial liabilities	29,036	30,183
Other non-financial liabilities	**154,689**	**263,600***
Advances received from customers	–	97,703
Social security and liabilities to employees	116,674	122,142*
Tax liabilities (excluding income tax)	23,734	28,171
Prepaid expenses	9,629	10,788
Investment grants and subsidies	4,652	4,796
Income tax liabilities	**8,326**	**5,214**

* Restated compared with presentation in the 2017 annual report.

In 2012, to safeguard liquidity in the medium term, KSB SE & Co. KGaA took the precaution of placing a loan against borrower's note with a total volume of € 175 million. This loan is divided into repayment tranches of 3, 5, 7 and 10 years. Tranches of € 127 thousand in total were repaid in 2017 and 2015, some early. As the different repayment tranches have different terms, different rates of interest apply, some of which are fixed and some variable. There were no redemptions in the year under review. € 27.5 million of the liabilities arising from the loan against borrower's note are classified as bank loans and overdrafts, and € 20.5 million as other financial liabilities (unchanged on the previous year).

There has also been a syndicated loan agreement of KSB SE & Co. KGaA and KSB Finanz S.A. since December 2018 to hedge liquidity risk and cover the need for bank guarantees of the KSB Group. The Group used these as follows at the end of the financial year:

€ thousands / Type of line	Maximum amount of line	Use as at 31 Dec. 2018
Loans	300,000	–
Sureties	350,000	86,950

The credit line can be used at any time and has a fixed term of five years with the option to renew twice by one year each time.

Items presented in the previous year as advances received from customers and advances received from customers PoC (net) are stated as contract liabilities under IFRS 15. They reflect KSB's obligation to transfer goods or services to customers for which KSB has already received advance payments.

In the 2018 financial year, the accounting principles were amended so that some items previously allocated to provisions are now classified as liabilities. This covers trade payables to third parties and other non-financial liabilities relating to social security and liabilities to employees. The previous year's figures were restated accordingly. For more details on this, please refer to the explanations in Sections III. Accounting Policies, and IV. Balance Sheet Disclosures – Notes No. 10 "Provisions".

The opening balance sheet value of contract liabilities as at 1 January 2018 was € 165,192 thousand. In the financial year, KSB reported sales revenue of € 61,797 thousand which was contained in the balance of contract liabilities at the beginning of the financial year. Cost corrections of fixed-price contracts and the resulting changes in contract progress had a positive € 1.9 million impact on contract liabilities. Contract liabilities as at 31 December 2018 totalled € 157,389 thousand, which was € 7,803 thousand below the opening balance sheet figure.

Assets amounting to € 11,939 thousand (previous year: € 6,098 thousand) have been pledged as security in the KSB Group for bank liabilities on the basis of standard terms and conditions. Of these, € 5,239 thousand (previous year: none) relate to property, plant and equipment, none (previous year: € 1,522 thousand) to inventories, none as in the previous year to receivables and € 5,258 thousand (previous year: € 4,576 thousand) to other securities.

As in the previous year, no liabilities were secured by land charges or similar rights in the year under review.

The reported investment grants and subsidies largely comprise funding from the European Union and German entities for new buildings and development aid projects.

The weighted average interest rate on bank loans and overdrafts as well as on an open-market credit (loan against borrower's note) was 3.94 % (previous year: 4.31 %). Interest rate risk exists for the major portion of the loan against borrower's note mentioned above.

There were no covenant agreements for loans in the year under review, as was the case in the previous year too.

V. INCOME STATEMENT DISCLOSURES

12 Sales revenue

Sales revenue by contract type

€ thousands	2018	2017
Revenue from the sale of goods and goods purchased and held for resale	1,984,508	1,951,928
Services sales revenue	261,440	253,030
Sales revenue	**2,245,948**	**2,204,958**

KSB generates income from the transfer of goods and services over time or at a point in time in the segments presented.

→ Sales revenue by segment and timing of revenue recognition

Spare parts used for repairs are also included in the Service segment.

Unsatisfied performance obligations

€ thousands	2018
Orders on hand, total transaction price of unsatisfied performance obligations as at 31 Dec. 2018	1,353,910
of which expected sales revenue within the next 12 months	1,004,119
of which expected sales revenue in more than 12 months	349,791

The stated amounts include variable considerations amounting to € 6,760 thousand.

13 Other income

Other income

€ thousands	2018	2017
Income from the reversal of provisions	8,507	14,845
Income from the reversal of impairment losses	5,321	5,834
Income from disposal of assets	1,618	12,319
Currency translation gains	1,146	5,767
Miscellaneous other income	16,458	30,405
	33,050	**69,170**

Income from current assets is primarily from the reversal of impairment losses on receivables. Insurance compensation, rental and lease income and commission income are also part of other income. Government grants for individual projects (for example, for research activities) generated income of € 3,855 thousand (previous year: € 3,065 thousand).

14 Cost of materials

Cost of materials

€ thousands	2018	2017
Cost of raw materials, production supplies and of goods purchased and held for resale	836,383	795,559
Cost of purchased services	98,162	92,261
	934,545	**887,820**

Sales revenue by segment and timing of revenue recognition

€ thousands	Pumps segment	Valves segment	Service segment	Total
Revenue from contracts with customers	1,469,443	340,771	435,734	**2,245,948**
Timing of revenue recognition				
At a point in time	1,307,639	319,957	–	**1,627,596**
Over time	161,804	20,814	435,734	**618,352**

15 Staff costs

Staff costs

€ thousands	2018	2017
Wages and salaries	655,614	640,390
Social security contributions and employee assistance costs	126,650	128,563
Pension costs	– 16,802	27,779
	765,462	**796,732**

Pension costs are reduced by the interest component included in the allocation of provisions that is reported in financial income / expense. Income of € 46,434 thousand based on past service cost has resulted from the introduction in December 2018 of a lump-sum option as additional payment variant for pension claims acquired by staff.

→ Employees

The first-time inclusion of the fully consolidated company KSB Dubric, Inc., USA, led to an increase of 32 in the average number of employees over the year and in the total number at the reporting date.

16 Other expenses

Other expenses

€ thousands	2018	2017
Repairs, maintenance, third-party services	118,983	96,981
Administrative expenses	89,703	84,232
Selling expenses	68,370	66,083
Rents and leases	26,640	27,232
Other staff costs	26,001	38,480
Impairment losses on trade receivables and contract assets	7,510	8,219
Currency translation losses	2,546	5,508
Losses from current assets	2,142	2,648
Losses from asset disposals	661	3,169
Miscellaneous other expenses	74,313	59,862
	416,869	**392,414**

Other expenses include mainly additions to provisions of € 26,719 thousand (previous year: € 13,490 thousand). The provision for a legacy project in the United Kingdom has a material impact here.

Employees

	Average for the year		At reporting date	
	2018	2017	31 Dec. 2018	31 Dec. 2017
Wage earners	6,744	6,998	6,737	6,954
Salaried employees	8,457	8,073	8,535	8,047
	15,201	**15,071**	**15,272**	**15,001**
Apprentices	410	450	441	454
	15,611	**15,521**	**15,713**	**15,455**

17 Finance income / expense

→ Finance income / expense

Interest and similar expenses include the net interest cost on pension provisions amounting to € 10,818 thousand (previous year: € 10,836 thousand).

On 20 July 2018, 30 % (plus one share) of the shares in KSB Pumps and Valves (Pty) Ltd. were issued to the new B-BBEE partner. The issuance of the company shares to the new B-BBEE partner is within the scope of IFRS 2. There is a payment through equity instruments, as no form of cash settlement payment is specified in the agreements. The shares issued were measured at fair value using a Monte Carlo simulation. The value of the shares totals € 768 thousand and is reported under other finance expense. For more details see Section II. Basis of Consolidation – Consolidated Group.

The positive performance of the finance income / expense is primarily due to lower interest expenses from a scheduled partial redemption of the loan against borrower's note in December 2017.

18 Taxes on income

All income-related taxes of the consolidated companies and deferred taxes are reported in this item. Other taxes are reported in the income statement after other expenses.

Taxes on income

€ thousands	2018	2017
Effective taxes	27,663	36,053
Deferred taxes	13,981	16,023
	41,644	**52,076**

€ 1,376 thousand (previous year: € 425 thousand) of the effective taxes in the year under review related to prior-period tax refunds and € 889 thousand (previous year: € 2,632 thousand) to tax arrears.

Finance income / expense

€ thousands	2018	2017
Finance income	**4,893**	**6,417**
Income from equity investments	248	253
thereof from other investments	(248)	(253)
Interest and similar income	4,618	6,139
thereof from other investments	(30)	(36)
thereof from investments accounted for using the equity method	(767)	(644)
Other finance income	27	25
Finance expense	**– 16,544**	**– 20,106**
Interest and similar expenses	– 15,432	– 19,204
Write-downs on other investments	–	– 853
Other finance expense	– 1,112	– 49
Income / expense from / to investments accounted for using the equity method	**2,510**	**1,514**
Finance income / expense	**– 9,141**	**– 12,175**

Reconciliation of deferred taxes

€ thousands	2018	2017
Change in deferred tax assets	11,345	20,430
Change in deferred tax liabilities	– 4,451	2,328
Change in deferred taxes recognised in balance sheet	**6,894**	**22,758**
Change in deferred taxes taken directly to equity	5,024	– 6,100
Changes in consolidated Group / CTA* / Other	2,063	– 635
Deferred taxes recognised in income statement	**13,981**	**16,023**

* CTA = Currency translation adjustments

→ Allocation of deferred taxes

As at the reporting date, deferred tax assets of € 67,579 thousand (previous year: € 80,111 thousand) were recognised, arising from companies posting a loss in the financial year or previous year, whose realisation exclusively depends on the creation of future profit. Based on the planning figures available, KSB expects realisation to take place.

Income tax included under equity

€ thousands	2018	2017
Remeasurement of defined benefit plans	– 10,736	9,328
Taxes on income	3,341	– 3,843
Currency translation differences	– 13,276	– 54,238
Taxes on income	–	–
Changes in the fair value of financial instruments	– 5,624	7,203
Taxes on income	1,683	– 2,257
Other comprehensive income	**– 24,612**	**– 43,807**

The introduction of new local taxes had minor effects (previous year: none) in the year under review. Changes in foreign tax rates led to an increase in the total tax expense of € 185 thousand (previous year: reduction of € 2,386 thousand).

Allocation of deferred taxes

	Deferred tax assets		Deferred tax liabilities	
€ thousands	2018	2017	2018	2017
Non-current assets	**4,191**	**1,456**	**36,708**	**28,220**
Intangible assets	608	739	9,089	105
Property, plant and equipment	3,583	717	27,618	28,060
Non-current financial assets	–	–	1	55
Current assets	**41,999**	**54,912**	**20,957**	**50,142**
Inventories	34,997	49,356	51	143
Receivables and other current assets	7,002	5,556	20,906	49,999
Assets held for sale	–	–	–	–
Non-current liabilities	**84,364**	**93,504**	**7**	**88**
Provisions	84,167	93,312	–	77
Other liabilities	197	192	7	11
Current liabilities	**18,600**	**15,806**	**22,475**	**11,438**
Provisions	12,055	10,408	931	1,261
Other liabilities	6,545	5,398	21,544	10,177
Tax loss carryforwards	**1,132**	**1,243**	**–**	**–**
Gross deferred taxes – before offsetting	**150,286**	**166,921**	**80,147**	**89,888**
Offset under IAS 12.74	– 69,895	– 75,185	– 69,895	– 75,185
Net deferred taxes – after offsetting	**80,391**	**91,736**	**10,252**	**14,703**

As far as net income from affiliates and other equity investments is concerned, withholding taxes incurred in connection with distributions and German taxes incurred are recognised as deferred taxes if these gains are expected to be subject to corresponding taxation, or there is no intention of reinvesting them in the long term. No deferred tax liabilities were recognised for temporary differences of € 71,440 thousand (previous year: € 108,394 thousand) in relation to affiliates and associates as it is unlikely that these temporary differences will be reversed in the foreseeable future.

No deferred tax assets were recognised for loss carryforwards amounting to € 124,041 thousand (previous year: € 78,748 thousand) because it is unlikely that there will be sufficient taxable profit available in the near future against which these deferred tax assets can be utilised. The loss carryforwards are largely available for an indefinite period.

Deductible temporary differences for which no deferred tax assets had to be set up amounted to € 34,339 thousand (previous year: € 32,722 thousand).

→ Reconciliation of income tax

The unchanged applicable tax rate of 30 % is a composite rate resulting from the current German corporation tax, solidarity surcharge and trade tax rates.

Other tax credits were previously contained under Miscellaneous. These are now stated separately under “Other tax credits”. The previous period was restated accordingly.

19 Earnings after income tax – Non-controlling interests

The net profit attributable to non-controlling interests amounts to € 13,569 thousand (previous year: € 15,770 thousand) and the net loss attributable to non-controlling interests amounts to € 951 thousand (previous year: € 847 thousand). Non-controlling interests relate primarily to PAB GmbH, Frankenthal, and the interests it holds, as well as to the companies in India and China.

20 Earnings per share

→ Earnings per share

Earnings per share under IAS 8.28 (f) after application of accounting standards IAS 11 and IAS 18 as at 31 December 2018 would be € 7.36 per ordinary share and € 7.81 per preference share.

Reconciliation of income tax

€ thousands	2018	2017*
Earnings before income tax (EBT)	65,561	104,180
Calculated income tax on the basis of the applicable tax rate (30 % as in the previous year)	19,668	31,254
Differences in tax rates	16	– 3,297
Unused tax loss carryforwards	14,124	4,229
Impairment losses on deferred taxes on tax loss carryforwards	–	7,012
Impairment loss on goodwill	6,659	1,222
Impairment losses on deferred taxes for temporary differences	–	3,991
Tax-exempt income	– 7,243	– 2,381
Non-deductible expenses	11,957	7,548
Prior-period taxes	– 1,587	2,207
Other tax credits	– 1,695	– 2,246
Non-deductible foreign income tax	2,471	2,406
Investments accounted for using the equity method	– 579	– 408
Miscellaneous	– 2,147	539
Current taxes on income	**41,644**	**52,076**
Current tax rate	64 %	50 %

* Restated compared with presentation in the 2017 annual report.

Earnings per share

		2018	2017
Earnings after income tax attributable to KSB SE & Co. KGaA shareholders	€ thousands	11,299	37,181
Additional dividend attributable to preference shareholders (€ 0.38 per preference share)	€ thousands	– 329	– 225
	€ thousands	**10,970**	**36,956**
Number of ordinary shares		886,615	886,615
Number of preference shares		864,712	864,712
Total number of shares		**1,751,327**	**1,751,327**
Diluted and basic earnings per ordinary share	**€**	**6.26**	**21.10**
Diluted and basic earnings per preference share	**€**	**6.64**	**21.36**

VI. ADDITIONAL DISCLOSURES ON FINANCIAL INSTRUMENTS

Financial instruments – Carrying amounts and fair values by measurement category

Financial instruments by measurement category as at 31 Dec. 2018 – Assets

Balance sheet item / Class € thousands	Measurement category	Carrying amount 31 Dec. 2018	Fair value 31 Dec. 2018
Non-current assets			
Non-current financial instruments	FVPL	660	660
Loans	Amortised cost	1,113	1,113
Current assets			
Trade receivables from third parties	Amortised cost	483,626	–
Trade receivables from other investments, associates and joint ventures	Amortised cost	34,490	–
Receivables from loans to other investments, associates and joint ventures	Amortised cost	12,661	–
Currency forwards used as hedges	n / a	1,070	1,070
Other receivables and other current assets	Amortised cost	89,657	–
Cash and cash equivalents	Amortised cost	255,545	–

Financial instruments by measurement category as at 31 Dec. 2018 – Equity and liabilities

Balance sheet item / Class € thousands	Measurement category	Carrying amount 31 Dec. 2018	Fair value 31 Dec. 2018
Non-current liabilities			
Financial liabilities excluding finance lease liabilities	Amortised cost	29,273	31,621
Finance lease liabilities	n / a	826	832
Current liabilities			
Financial liabilities excluding finance lease liabilities	Amortised cost	48,373	–
Finance lease liabilities	n / a	404	–
Trade payables	Amortised cost	270,212	–
Currency forwards used as hedges	n / a	3,731	3,731
Miscellaneous other financial liabilities	Amortised cost	29,036	–

Carrying amounts aggregated by category under IFRS 9

Balance sheet item € thousands	Measurement category	31 Dec. 2018
Assets	Amortised cost	877,092
Equity and liabilities	Amortised cost	376,894
FVPL	FVPL	660

Financial instruments by measurement category (IAS 39) as at 31 Dec. 2017 – Assets

Balance sheet item / Class € thousands	Measure-ment category	Initial / subsequent measurement	Carrying amount 31 Dec. 2017	Fair value 31 Dec. 2017
Non-current assets				
Other investments	n / a	Amortised cost	2,985	–
Non-current financial instruments	AfS	Fair value	657	657
Loans	LaR	Fair value / Amortised cost	2,490	2,490
Current assets				
Trade receivables	LaR	Fair value / Amortised cost	480,928	–
Trade receivables from other investments, associates and joint ventures	LaR	Fair value / Amortised cost	32,341	–
Receivables from loans to other investments, associates and joint ventures	LaR	Fair value / Amortised cost	13,344	–
Receivables recognised by PoC, net	LaR	Fair value / Amortised cost	100,042	–
Currency forwards used as hedges	n / a	Fair value	5,074	5,074
Other receivables and other current assets	LaR	Fair value / Amortised cost	98,552	–
Cash and cash equivalents	LaR	Fair value / Amortised cost	289,535	–

Financial instruments by measurement category (IAS 39) as at 31 Dec. 2017 – Equity and liabilities

Balance sheet item / Class € thousands	Measure-ment category	Initial / subsequent measurement	Carrying amount 31 Dec. 2017	Fair value 31 Dec. 2017
Non-current liabilities				
Financial liabilities excluding finance lease liabilities	FLAC	Fair value / Amortised cost	53,759	52,622
Finance lease liabilities	n / a	In accordance with IAS 17	574	579
Current liabilities				
Financial liabilities excluding finance lease liabilities	FLAC	Fair value / Amortised cost	21,607	–
Finance lease liabilities	n / a	In accordance with IAS 17	353	–
Trade payables	FLAC	Fair value / Amortised cost	241,360	–
Advances received from customers on contract assets	FLAC	Fair value / Amortised cost	49,401	–
Currency forwards used as hedges	n / a	Fair value	1,883	1,883
Other financial liabilities	FLAC	Fair value / Amortised cost	30,183	–

Carrying amounts aggregated by category under IFRS 7

Balance sheet item € thousands	Measure-ment category	Initial / subsequent measurement	31 Dec. 2017
Loans and receivables	LaR	Fair value / Amortised cost	1,017,232
Available-for-sale financial instruments	AfS	Fair value	657
Financial liabilities measured at amortised cost	FLAC	Fair value / Amortised cost	346,909

The carrying amount of financial assets measured at amortised cost approximates fair value. This is also the case for all financial liabilities shown on the balance sheet, with the exception of non-current and current financial liabilities. This is mainly due to the short maturities of these financial instruments.

The fair values of non-current financial liabilities and loans are determined as the present value of the cash flows within level 2 associated with the liabilities and loans. KSB applies an appropriate yield curve to arrive at this present value.

The fair values of the current and non-current financial instruments presented in the table above are based on prices quoted in active markets (level 1). Fair values within level 2 are determined based on a discounted cash flow method. Future cash flows from currency forwards are estimated on the basis of forward exchange rates (observable rates on the reporting date) and the contracted forward exchange rates, and are discounted with an adequate interest rate. Level 3 includes financial instruments whose fair value is determined on the basis of inputs not based on observable market data. Foreign exchange derivatives are measured using forward exchange rates. For interest rate swaps the fair value is determined through discounting the future expected cash flows based on the market interest rates and yield curves that apply to the remaining term of the contracts.

The following table shows the financial assets and liabilities measured at fair value on a recurring basis, broken down into measurement categories and the previously described hierarchy levels. There were no reclassifications carried out during the year under review.

Hierarchy levels 2018

€ thousands	Level 1	Level 2	Level 3	Total
Financial assets recognised at fair value				
Current financial instruments	660	–	–	**660**
Currency forwards	–	1,070	–	**1,070**
Financial liabilities recognised at fair value				
Currency forwards	–	3,731	–	**3,731**

Hierarchy levels 2017

€ thousands	Level 1	Level 2	Level 3	Total
Financial assets recognised at fair value				
Current financial instruments	657	–	–	**657**
Currency forwards	–	5,074	–	**5,074**
Financial liabilities recognised at fair value				
Currency forwards	–	1,883	–	**1,883**

The net gains and losses from financial instruments, after taking into account the relevant tax effect, are presented in the following table:

→ Net results by measurement category in 2018
→ Net results by measurement category in 2017

The interest shown is a component of finance income/expense. The effect from the application of the effective interest rate method is immaterial here as the interest expenses are virtually offset by the resulting interest income. The other gains and losses are partly reported in other income and other expenses.

The amount of financial assets and liabilities subject to offsetting agreements is not material.

Financial risks

KSB is exposed to certain financial risks as a consequence of its business activities. These risks can be classified into three areas: KSB is firstly exposed to credit risk. Credit risk is defined as the potential default or delays in the receipt of contractually agreed payments. KSB is also exposed to liquidity risk which is the risk that an entity will be unable to meet its financial obligations, or will be unable to meet them in full. In addition, KSB is exposed to market price risk. The risk of exchange rate or interest rate changes may adversely affect the economic position of the Group. Risks from fluctuations in the prices of financial instruments are not material for KSB.

KSB limits all these risks through an appropriate risk management system, defining how these risks are addressed through guidelines and work instructions. In addition, KSB continuously monitors the current risk characteristics and regularly provides the information obtained in this way to the Managing Directors and the Supervisory Board in the form of standardised reports and individual analyses.

Net results by measurement category in 2018

€ thousands	From interest and dividends	From subsequent measurement: At fair value	Currency translation	Impairment losses	From disposal	Net results
Amortised cost (assets)	4,645	–	500	– 1,997	–	3,148
Amortised cost (equity and liabilities)	– 5,992	–	43	–	–	– 5,949
FVPL	12	–	–	–	–	12
	– 1,335	**–**	**543**	**– 1,997**	**–**	**– 2,789**

Net results by measurement category in 2017

€ thousands	From interest and dividends	From subsequent measurement: At fair value	Currency translation	Impairment losses	From disposal	Net results
LaR	6,164	–	– 718	– 1,476	–	3,970
AfS	265	–	–	– 2	–	263
FLAC	– 9,542	–	228	–	–	– 9,314
	– 3,113	**–**	**– 490**	**– 1,478**	**–**	**– 5,081**

The three risk areas are described in detail in the following. Additional information is also provided in the group management report, in particular in the Economic Review, Report on Expected Developments, Opportunities and Risks Report sections.

Credit risk

The primary credit risk is that there is a delay in settling a receivable, or that it is not settled either in full or in part. KSB minimises this risk using a variety of measures. As a matter of principle, KSB runs credit checks on potential and existing counterparties. KSB only enters into business relationships if the results of these checks are positive. Additionally, European companies in particular take out trade credit insurance policies. As in the previous year, this applies to around 10 % of the Group's trade receivables in total. In exceptional cases KSB accepts other securities (collateral) such as guarantees. The insurance policies primarily cover the risk of loss of receivables. Moreover, cover is also taken out against political and commercial risks in the case of specific customers in selected countries. For both types of insurance, KSB has agreed deductibles, which represent significantly less than 50 % of the insured volume. As part of receivables management, KSB continuously monitors outstanding items, performs maturity analyses and establishes contact with customers at an early stage if delays in payment occur. In the case of major projects, the terms and conditions provide for prepayments, guarantees and – for export transactions – letters of credit. These also mitigate risk. KSB recognises impairment losses for the residual risk remaining in trade receivables. It regularly examines the extent to which individual receivables need to be written down for impairment. Indications of this are significant financial difficulties of the debtor, such as insolvency or bankruptcy. KSB also covers the credit risk of receivables that are past due by providing for the risk involved. Receivables are derecognised when it is reasonably certain that payment cannot be expected.

The maximum default risk, excluding collateral received, corresponds to the carrying amount of the financial assets. These all have an investment grade rating.

There is no concentration of risk because the diversity of KSB's business means that it supplies a considerable number of customers in different sectors.

Liquidity risk

Liquidity management ensures that this risk is minimised in the Group and that solvency is ensured at all times. There are no concentrations of risk because KSB works with a number of credit institutions, on which strict creditworthiness requirements are imposed.

KSB generates its financial resources primarily from its operating business. These are used to finance investments in non-current assets. KSB also uses them to cover our working capital requirements. To keep these as low as possible, KSB monitors changes in inventories, contract assets, trade receivables, trade payables and contract liabilities regularly using a standardised Group reporting system.

The reporting system additionally ensures, with the help of monthly rolling cash flow planning, that the Group's centralised financial management is continuously informed about liquidity surpluses and requirements. This enables KSB to optimally meet the needs of the Group as a whole and of the individual companies. For selected companies KSB uses a cash pooling system to ensure that available cash is deployed optimally within the Group. A worldwide receivables netting procedure is also applied within the KSB Group so as to minimise both the volume of cash flows and the associated fees. In order to be able to provide the necessary collateral in the project business, KSB makes corresponding guarantee volumes available. In addition, it is always ensured that credit facilities are sufficient; KSB identifies the need for these on the basis of regular liquidity planning. This way, it can react at any time to fluctuating liquidity requirements. The approved cash loans and credit lines total approximately € 1,283.9 million (previous year: approx. € 893.5 million), of which € 1,012.4 million has not yet been utilised (previous year: € 620.2 million).

The following tables show the contractually agreed non-discounted future cash flows of the financial liabilities (primary financial instruments) and derivative financial instruments. Interest payments on fixed-rate liabilities are determined on the basis of the fixed rate. Floating-rate interest payments are based on the last floating interest rates fixed before 31 December. Projections for future new liabilities are not included in the presentation. Based on the current state of knowledge, it is neither expected that the cash flows will take place significantly earlier, nor that the amounts will differ significantly.

→ Cash flows of financial liabilities 2018
→ Cash flows of financial liabilities 2017

Market price risk

Global business activities expose KSB primarily to currency and interest rate risk. Any changes in market prices can affect fair values and future cash flows. Sensitivity analyses are used to determine the hypothetical impact of such market price fluctuations on earnings and equity. In doing so, KSB assumes that the portfolio at the reporting date is representative of the full year.

KSB reduces the risks resulting from changes in prices on the procurement side for orders with extended delivery dates by agreeing cost escalation clauses or, in the case of fixed-price contracts, by including the expected rate of cost increases in the sales price.

Currency risk mainly affects cash flows from operating activities. It arises when Group companies settle transactions in currencies that are not their functional currency. KSB minimises this risk using currency forwards and, on rare occasions, options. Further information is presented in Section III. Accounting Policies under "Financial assets and liabilities – b) Derivative financial instruments". KSB uses micro hedges with regard to both transactions already recognised and cash flows that are expected in the future with a high degree of probability. The hedging instruments used share the essential terms and conditions with the underlying transactions, i.e. with regard to amount, term and quality. Internal guidelines govern the use of financial instruments. Such transactions are also subject to ongoing risk control measures. The effectiveness of hedges is determined at the beginning of the hedge and through regular prospective assessment. The aim is to ensure that there is a financial relationship between the hedge underlying and hedging instrument. The hedging instruments used are exclusively currency forwards entered into with prime-rated banks. To hedge forward exchange transactions, the Group takes out hedges where the contractual modalities of the hedging instrument essentially match those of the hedged underlying. The hedge ratio for hedges is 1:1, i.e. the volume of hedge transactions matches the designated underlyings. In order to measure the effectiveness or ineffectiveness of hedges, KSB compares the fair value of the underlying and the hedge transactions. Changes in the

Cash flows of financial liabilities 2018

€ thousands	Total	Up to 1 year	1 – 5 years	> 5 years
Financial liabilities	84,419	56,101	28,005	313
Trade payables	270,212	270,212	–	–
Miscellaneous other financial liabilities	29,036	26,320	2,716	–
Derivative financial instruments Incoming payments	– 1,190	– 1,062	– 128	–
Derivative financial instruments Outgoing payments	3,851	3,498	353	–
	386,328	**355,069**	**30,946**	**313**

Cash flows of financial liabilities 2017

€ thousands	Total	Up to 1 year	1 – 5 years	> 5 years
Financial liabilities	**82,888**	24,827	57,504	557
Trade payables	**241,630**	241,630	–	–
Miscellaneous other financial liabilities	**30,183**	30,175	8	–
Derivative financial instruments Incoming payments	**– 5,074**	– 4,690	– 384	–
Derivative financial instruments Outgoing payments	**1,883**	1,489	375	19
	351,310	**293,431**	**57,503**	**576**

Notional volumes 2018

€ thousands	Total	Up to 1 year	1 – 5 years	> 5 years
Currency forwards	238,300	231,947	6,353	–

Notional volumes 2017

€ thousands	Total	Up to 1 year	1 – 5 years	> 5 years
Currency forwards	276,489	261,560	14,819	110

fair value of the derivatives are almost completely offset by changes in the fair value of the cash flows from the underlyings (dollar offset method). The change in fair value of the underlyings and hedges in the financial year therefore match the unrealised profits and losses recorded under equity. As a rule, KSB does not hedge currency risks from the translation of foreign operations into the Group currency (€). Ineffectiveness can arise from hedging currency risk if the material measurement parameters of the underlying and hedge no longer match. There was no ineffectiveness in the KSB Group in respect of currency hedges in the 2018 and 2017 financial years.

At the reporting date, the notional volume of all currency forwards was € 283,300 thousand (previous year: € 276,489 thousand), and the notional volume of all interest rate derivatives was € 0 thousand (previous year: none). The contractual maturities of payments for currency forwards are as follows:

→ Notional volumes 2018
→ Notional volumes 2017

The weighted average rate of hedging instruments for the main foreign currencies was:

Hedging of currency risk

	2018	2017
Average rate USD/EUR	1.19	1.18
Average rate GBP/EUR	0.90	0.90
Average rate SEK/EUR	10.32	9.78

The change in the hedging reserve and in the cost of hedging reserve for currency hedges before tax is shown below:

→ Changes in the fair value of derivatives 2018
→ Changes in the fair value of derivatives 2017

The key foreign currencies in the KSB Group are the US dollar (USD) and Chinese yuan (CNY). For the currency sensitivity analysis, KSB simulates the effects based on the notional volume of existing foreign exchange derivatives and foreign currency receivables and liabilities at the reporting date. For the analysis, a 10 % increase (decrease) in the value of the euro versus the other currencies is assumed. In the reporting year, this would have amounted to approximately € 0.4 million (previous year: € 1.5 million) for CNY, € 2.4 million (previous year: € 2.3 million) for USD and € 1.5 million (previous year: € 1.2 million) for the remaining currencies.

→ Currency volumes

Based on the measurement of derivatives, at the reporting date, equity and the fair value of the derivatives would have been € 11.2 million lower (higher), with € 8.1 million resulting from USD and € 3.1 million from the other currencies. At the previous year's reporting date, equity and the fair value of the derivatives would have been € 11.7 million lower (higher), with € 9.0 million resulting from USD and € 2.7 million from the other currencies.

KSB regularly monitors the interest rate risks associated with its financing activities. To avoid the negative effects of interest rate fluctuations on the international capital markets, KSB concludes interest rate hedges (interest rate swaps) where necessary, generally for long-term loans. These are used exclusively to hedge floating rate loans against rising interest rates. No such transactions were recognised in the financial year.

Changes in the fair value of derivatives 2018

	OCI	
€ thousands	Cash flow hedges – hedging reserve	Cash flow hedges – cost of hedging reserve
Currency risk		
Opening balance at 1 January	1,384	– 770
Effective portion of changes in fair value	– 6,272	– 459
Realisation of underlying recognised in income	739	406
Closing balance at 31 December	**– 4,149**	– 823

Changes in the fair value of derivatives 2017

	OCI	
€ thousands	Cash flow hedges – hedging reserve	Cash flow hedges – cost of hedging reserve
Currency risk		
Opening balance at 1 January	– 7,560	831
Effective portion of changes in fair value	10,169	– 1,618
Realisation of underlying recognised in income	– 1,225	17
Closing balance at 31 December	**1,384**	– 770

Currency volumes

	CNY 31 Dec. 2018	CNY 31 Dec. 2017	USD 31 Dec. 2018	USD 31 Dec. 2017
Trade receivables	€ 53.3 million	€ 57.5 million	€ 22.7 million	€ 22.3 million
Trade payables	€ 49.1 million	€ 42.1 million	€ 15.6 million	€ 10.8 million
Balance	**€ 4.2 million**	**€ 15.4 million**	**€ 7.1 million**	**€ 11.5 million**

As part of the interest rate sensitivity analysis, KSB simulates a 50 basis point increase (decrease) in market interest rates and analyses the impact on the floating rate financial instruments. In the reporting year 2018, the net interest balance would have been € 1.5 million (€ 1.0 million) (previous year: € 1.7 million (€ 1.2 million) higher (lower). As in the previous year, there were no interest rate derivatives in the Group in the financial year.

VII. STATEMENT OF CASH FLOWS

In the statement of cash flows, KSB classifies cash flows by operating, investing and financing activities. Effects of changes in the consolidated Group and in exchange rates are eliminated in the relevant items. The effect of exchange rate changes (based on annual average rates) and changes in the consolidated Group on cash and cash equivalents is presented separately.

Cash flows from operating activities additionally include a "cash flow" subtotal that merely comprises the net profit for the year; depreciation, amortisation and impairment losses as well as reversals of impairment losses; changes in non-current provisions; and non-cash effects, for example, of the disposal of fixed assets. This subtotal is combined with the changes in the other operating components of assets (including current financial instruments) and liabilities to determine cash flows from operating activities. Only those changes that are recognised in the income statement are taken into account.

Cash flows from investing activities exclusively reflect cash-effective acquisitions and disposals of investments in intangible assets, property, plant and equipment, non-current financial assets, and changes in term deposits with a maturity of more than 3 months, including commercial papers.

In addition to cash flows resulting from equity items (capitalisation measures and dividend payments), cash flows from financing activities also comprise cash flows arising from changes in financial liabilities.

If cash and cash equivalents include restricted cash, this is reported separately.

Changes in cash flows from financing activities

		Cash-effective	Not cash-effective		
€ thousands	**1 Jan. 2018**		**Acquisitions**	**Changes resulting from exchange rates**	**31 Dec. 2018**
Non-current liabilities	53,759	– 23,862	–	– 623	29,274
Current liabilities	21,285	28,479	–	– 1,711	48,053
Lease liabilities	927	335	–	– 32	1,230
Total liabilities from financing activities	**75,971**	**4,952**	**–**	**2,366**	**78,557**
Dividend payments	–	– 15,866	–	–	–
Salary conversion (provisions for pensions)	–	2,993	–	–	–
Payments for the acquisition of minority interests	–	– 1,512	–	–	–
Total cash flows from financing activities	**–**	**– 9,433**	**–**	**–**	**–**

		Cash-effective	Not cash-effective		
€ thousands	**1 Jan. 2017**		**Acquisitions**	**Changes resulting from exchange rates**	**31 Dec. 2017**
Non-current liabilities	57,269	– 2,122	–	– 1,388	53,759
Current liabilities	119,082	– 95,491	–	– 2,306	21,285
Lease liabilities	1,193	– 223	–	– 43	927
Total liabilities from financing activities	**177,544**	**– 97,386**	**–**	**– 3,737**	**75,971**
Dividend payments	–	– 12,348	–	–	–
Salary conversion (provisions for pensions)	–	4,186	–	–	–
Total cash flows from financing activities	**–**	**– 105,998**	**–**	**–**	**–**

VIII. SEGMENT REPORTING

Segment reporting is prepared in accordance with IFRS 8 based on the management approach and corresponds to the internal organisational and management structure as well as the reporting lines to the Managing Directors as the chief operating decision-makers. In KSB's matrix organisation, management decisions are primarily taken on the basis of the key performance indicators – order intake, external sales revenue and earnings before finance income / expense and income tax (EBIT) – determined for the Pumps, Valves and Service segments. Reporting the relevant assets, number of employees and inter-segment sales revenue for these segments is not part of internal reporting. The managers in charge of these segments, which are geared to product groups, have profit and loss responsibility. They identify business opportunities across markets and industries and assess the options based on current and future market requirements. They also proactively encourage the development of new products and improvements to the available range of products. In this context, they work closely with the Sales organisation and Operations.

The **Pumps** segment includes single- and multistage pumps, submersible pumps and associated control and drive systems. Applications include process engineering, building services, water and waste water transport, energy conversion and solids transport.

The **Valves** segment covers butterfly, globe, gate, control, diaphragm and ball valves, as well as associated actuators and control systems. Applications primarily include process engineering, building services, energy conversion and solids transport.

The **Service** segment covers the installation, commissioning, start-up, inspection, servicing, maintenance and repair of pumps, related systems and valves for all applications; as well as modular service concepts and system analyses for complete systems.

The companies can be allocated to one or more segments based on their business activities.

The amounts disclosed for the individual segments have been established in compliance with the accounting policies of the underlying consolidated financial statements.

Transfer prices for intercompany sales are determined on an arm's length basis.

There were no discontinued operations in the period under review, as in the comparative period of the previous year.

The **order intake** by segment presents order intake generated with third parties.

The **sales revenue** by segment presents sales revenue generated with third parties.

The definition of the earnings indicator of the segments, EBIT, changed in the first quarter of the 2018 financial year. Until the 2017 year-end, the EBIT was still defined as the earnings before interest and income taxes; since the beginning of 2018, it means earnings before financial income / expense and income tax. In the comments in consolidated financial statements, the new definition of the key indicator applies. Prior-year figures have been restated accordingly.

The table shows **earnings before finance income / expense and income tax (EBIT)** and **consolidated earnings before income tax (EBT)** including non-controlling interests.
→ Segment reporting

The EBIT of the Pumps segment includes depreciation and amortisation expense of € 48,802 thousand (previous year: € 46,998 thousand), the EBIT of the Valves segment includes depreciation and amortisation expense of € 32,292 thousand (previous year: € 9,559 thousand) and the EBIT of the Service segment includes depreciation and amortisation expense of € 23,397 thousand (previous year: € 14,889 thousand).

€ 562,147 thousand (previous year: € 588,997 thousand) of the sales revenue presented was generated by the companies based in Germany, € 241,476 thousand (previous year: € 228,404 thousand) was generated by the companies based in France, € 188,989 thousand (previous year: € 167,274 thousand) by the companies based in the USA, and € 1,253,336 thousand (previous year: € 1,220,283 thousand) by the other Group companies.

There were no relationships with individual customers that accounted for a material proportion of Group sales revenue.

At the reporting date, the total non-current assets of the KSB Group amounted to € 611,603 thousand (previous year: € 636,453 thousand), with 214,857 thousand (previous year:

Segment reporting

€ thousands	Order intake 2018	Order intake 2017	Sales revenue 2018	Sales revenue 2017	EBIT 2018	EBIT 2017 (restated)
Pumps segment	1,506,248	1,473,628	1,469,443	1,444,392	90,563	79,284
Valves segment	355,618	343,505	340,771	338,849	– 37,373	51
Service segment	441,670	448,179	435,734	421,717	21,512	37,020
Total	**2,303,536**	**2,265,312**	**2,245,948**	**2,204,958**	**74,702**	**116,355**
				Finance income / expense	– 9,141	– 12,175
				Earnings before income tax (EBT)	**65,561**	**104,180**

€ 204,209 thousand) being attributable to the companies based in Germany and € 396,746 thousand (previous year: € 432,244 thousand) being attributable to the other Group companies. They include intangible assets, property, plant and equipment and investments accounted for using the equity method; non-current financial instruments and deferred tax assets are not included.

IX. OTHER DISCLOSURES

Contingent liabilities

Contingent liabilities resulting from legal disputes in relation to operations amounted to € 23.7 million (previous year: € 56.7 million). There are no insurance claims to be covered, as in the previous year. Significant uncertainties result for KSB in estimating the expected outcome of current court proceedings and the potentially resultant obligations and risks. In this respect, estimates are required in particular with regard to the existence of any obligations and in relation to the probability and amount of an outflow of resources. KSB is not currently expecting a payment obligation for contingent liabilities arising from legal disputes.

Other contingent liabilities related to tax items (plus potential interest) of € 1,536 thousand (previous year: € 1,599 thousand). At present, there are no indications that any claims will be asserted under these obligations.

The Group has contingent liabilities as a result of its investment in associates and joint ventures of € 7,367 thousand (previous year: € 7,426 thousand). Contingent liabilities to other investments total € 393 thousand (previous year: € 963 thousand). The extent to which these will result in a cash outflow depends on the future business performance of the respective company.

Contingent liabilities

€ thousands	2018	2017
Liabilities from guarantees	7,760	4,877
Liabilities from warranties	–	482
Liabilities from the granting of security for third-party liabilities	2,897	1,836
	10,657	**7,195**

Other financial obligations

As in the previous year, there are no purchase price obligations from acquisitions of companies and no payment obligations from capitalisation measures at Group companies.

The aggregate purchase obligation for investments amounts to € 12,418 thousand (previous year: € 12,249 thousand). Almost all of the corresponding payments are due in 2019.

Leases

Operating leases

€ thousands	Minimum lease payments 2018	Minimum lease payments 2017
Due within 1 year	20,471	15,696
Due between 1 and 5 years	38,389	30,069
Due after more than 5 years	4,200	3,941
	63,060	**49,706**

Finance leases

€ thousands	Minimum lease payments 2018	Minimum lease payments 2017	Present values 2018	Present values 2017
Due within 1 year	413	359	404	353
Due between 1 and 5 years	832	579	826	574
Due after more than 5 years	–	–	–	–
	1,245	**938**	**1,230**	**927**

In the reporting year, leasing payments for operating leases of € 26,640 thousand (previous year: € 27,232 thousand) were recognised in the income statement.

Future liabilities arising from IT service contracts in force amount to € 37,534 thousand (previous year: € 41,843 thousand). Of these, € 19,521 (previous year: € 16,190 thousand) are due within one year and € 18,013 thousand (previous year: € 25,653 thousand) subsequently in up to five years.

Operating leases relate primarily to vehicles and real estate.
→ Finance leases

Finance leases relate mostly to real estate, as well as to other equipment, operating and office equipment. The term of the contract covers most of the useful life of the asset concerned.

Research and development costs

Research and development costs in the year under review amounted to € 49,228 thousand (previous year: € 47,106 thousand). Most of these costs are order-related expenses.

Related party disclosures

Pursuant to Section 21(1) of the 28 Dec. 2007 version of the WpHG [*Wertpapierhandelsgesetz* – German Securities Trade Act], KSB Stiftung [KSB Foundation], Stuttgart, notified us on 21 May 2008 that its voting interest in KSB SE & Co. KGaA, Frankenthal/Pfalz exceeded the 75.00 % threshold on 5 May 2008 and amounted to 80.24 % (711,453 voting shares) on this date. 0.54 % of the voting rights (4,782 voting shares) were held directly by KSB Stiftung, Stuttgart, and 79.70 % (706,671 voting shares) were attributed to KSB Stiftung, Stuttgart, pursuant to Section 22(1), Sentence 1, No. 1 of the 28 Dec. 2007 version of the WpHG. The voting rights attributed to KSB Stiftung, Stuttgart, were held by Johannes und Jacob Klein GmbH, Frankenthal. In 2018 the voting interest of Johannes und Jacob Klein GmbH increased to 83.94 %.

Related parties are KSB Management SE as general partner, KSB Stiftung, Stuttgart, and Kühborth Stiftung GmbH, Stuttgart, each with their direct and indirect interests, joint ventures and associates. These are primarily Johannes und Jacob Klein GmbH, Frankenthal, Palatina Versicherungsservice GmbH, Frankenthal, and the companies of Abacus alpha GmbH, Frankenthal. Furthermore, related parties also include entities controlled or jointly controlled by the Managing Directors of Johannes und Jacob Klein GmbH (JJK), the Managing Directors or members of the Administrative Board of KSB Management SE or the Managing Directors or members of the Advisory Board of Klein, Schanzlin & Becker GmbH.

The members of the Supervisory Board, the Managing Directors of KSB Management SE (from 17 January 2018, previously: Board of Management of KSB Aktiengesellschaft) and the members of the Administrative Board of KSB Management SE are deemed to be related parties of KSB SE & Co. KGaA. In the financial year, three Supervisory Board members held an immaterial share of interests in our company.

As part of normal business activities, the company maintains business relationships with numerous companies, including affiliates that are deemed to be related parties.

The company maintains relationships with affiliates in the following areas:

- Buying/selling assets
- Sourcing/providing services
- Usage/transferring usage of assets

Balances and transactions between KSB SE & Co. KGaA and its subsidiaries, which are related parties, have been eliminated during the consolidation process and are not explained in further detail. Details regarding transactions between the KSB Group and other related parties are provided below.

The following table shows services provided and used, as well as pending receivables and liabilities owed from and to related parties:
→ Services, receivables and liabilities in dealings with related parties

The liabilities to KSB Management SE are due in the short term. As the legal representative, KSB Management SE provides management services and, as the general partner, assumes liability for KSB. It receives reimbursement of its costs as a management fee and 4 % of its share capital for acceptance of liability.

Further information on joint ventures and associates (related party disclosures) are presented in Section IV. Balance Sheet Disclosures – Notes No. 5 “Investments accounted for under the equity method”, Notes No. 7 “Contract assets, trade receivables and other financial and non-financial assets” and Notes No. 11 “Liabilities”, and in Section IX. Other Disclosures – Contingent Liabilities.

The transactions in relation to Johannes und Jacob Klein GmbH are based on a rental and services agreement. In addition, Johannes und Jacob Klein GmbH received dividend payments.

Transactions with subsidiaries of Johannes und Jacob Klein GmbH comprise transactions with Palatina Versicherungsservice GmbH, Abacus alpha GmbH, Abacus Resale GmbH, Abacus Experten GmbH, Salinnova GmbH and airinotec GmbH). There were transactions with associates or joint ventures of KSB with Johannes und Jacob Klein GmbH in the financial year.

A services agreement for insurances is in place between Palatina Versicherungsservice GmbH and KSB SE & Co. KGaA. Abacus Experten GmbH concluded a number of service agreements with KSB SE & Co. KGaA; there is a framework delivery and service agreement with Abacus Resale GmbH for the purchase of returns and the provision of additional associated services. In addition, products were delivered to the company as part of the normal business activities. KSB SE & Co. KGaA and Abacus alpha GmbH have also concluded service agreements. KSB products were delivered to airinotec GmbH and Salinnova GmbH as part of normal business activities. KSB purchased spare parts from Salinnova GmbH.

Transactions with related parties are performed at arm’s length.

In previous years, KSB incurred expenses for services that accrued to JJK or third parties at the instigation or in the interest of JJK. These expenses were either not passed onto JJK or third parties or not passed on at the market rate. Corresponding compensatory arrangements were made in subsequent years. Subsequently, facts became known about services that were provided at non-market rates to JJK, its investees or third parties at the instigation or in the interest of JJK. The legal review and evaluation of these facts lasted until April 2018. As a result, agreements were made in May 2018 that led to payments to KSB of € 298 thousand in total. In December 2018, JJK made a further payment of € 128 thousand to KSB based on the further legal review and evaluation of facts relating to relationships with related parties. The payment covered the settlement of VAT back payments for services provided by KSB to JJK or its investees in the period from 2013 to April 2017, related back interest and the legal costs incurred by KSB in connection with such services. These back payments were reported under other operating income.

Pending balances at the year-end are unsecured, do not accrue interest and are settled by means of payments. No guarantees were given or received. The receivables presented here, as in the previous year, are not subject to write-downs and no provisions have been created for this purpose.

Services, receivables and liabilities in dealings with related parties

€ thousands	Sales of goods and services 2018	Sales of goods and services 2017	Purchases of goods and services 2018	Purchases of goods and services 2017	Receivables 31 Dec. 2018	Receivables 31 Dec. 2017	Liabilities 31 Dec. 2018	Liabilities 31 Dec. 2017
KSB Management SE	62	–	5,817	–	–	–	3,340	–
Klein, Schanzlin & Becker GmbH	–	–	–	–	–	–	–	–
KSB Stiftung and Kühborth-Stiftung GmbH	–	–	–	–	–	–	–	–
Johannes und Jacob Klein GmbH	222	1,708	23	16	1	4	1	16
Subsidiaries of Johannes und Jacob Klein GmbH	665	1,448	2,933	2,845	163	182	34	774
Associates / joint ventures of Johannes und Jacob Klein GmbH	–	–	142	–	–	–	1	–
Other related parties (corporate bodies), excluding "Management remuneration"	24	105	–	16	–	6	–	–

Disclosures and information on affiliates and investments accounted for using the equity method provided in other section of these Notes refer to relations covering the supply of products and services on an arm's length basis, unless stated otherwise.

Pursuant to IAS 24, the remuneration of key management personnel of the Group must be disclosed. Due to the change in the company's legal form, the contracts of service of the members of the Board of Management of KSB Aktiengesellschaft were cancelled as of 17 January 2018. Since that date, they have been managing KSB's business as Managing Directors of KSB Management SE. As a result, some of the pension commitments were transferred from KSB to KSB Management SE under Section 4(2) No. 1 BetrAVG [*Betriebsrentengesetz* – German Company Pensions Act]. The following table presents the relevant information for the KSB Group on remuneration paid to the Managing Directors and the members of the Administrative Board of KSB Management SE by KSB under an expense reimbursement agreement.

Management remuneration

€ thousands	31 Dec. 2018	31 Dec. 2017
Short-term benefits (total remuneration)	3,722	1,858
Post-employment benefits	1,929	1,422
Other long-term benefits	–	–
Termination benefits	–	–
Share-based payments	–	–
Total	**5,651**	**3,280**

In the financial year, KSB Management SE received from KSB SE & Co. KGaA reimbursed expenses of € 166 thousand for managing KSB's business in addition to the aforementioned reimbursement of expenses for remunerating the members of the governing bodies of KSB Management SE.

KSB has set aside provisions of € 684 thousand (previous year: € 2,934 thousand) for pension obligations to current Managing Directors of KSB Management SE, and € 41,648 thousand (previous year: € 42,202 thousand) for pension obligations to former members of the Board of Management of KSB AG (excluding the Managing Directors of KSB Management SE) and their surviving dependants as at 31 December 2018; total benefits paid to these persons amounted to € 2,548 thousand in the year under review (previous year: € 2,422 thousand).

The short-term benefits paid to members of the Supervisory Board amount to € 932 thousand for the 2018 financial year (previous year: € 834 thousand). Provisions of € 482 thousand were set aside for members of the Supervisory Board at the end of the financial year.

The members of the Supervisory Board, the Managing Directors and the members of the Administrative Board of the general partner are listed before the information on the proposal on the appropriation of net retained earnings for KSB SE & Co. KGaA.

Auditors
PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, based in Frankfurt am Main with an office in Mannheim, were appointed as auditors and group auditors for the 2018 financial year at the Annual General Meeting of KSB SE & Co. KGaA on 16 May 2018. Overall, fees (including expenses) amounting to € 2,314 thousand were recognised as expenses. Of this, € 1,162 thousand relate to audit services, € 82 thousand to other certification services and € 1,070 thousand to other services.

The audit fees include costs for the audit of the consolidated financial statements and of the statutory annual financial statements of KSB SE & Co. KGaA and the German subsidiaries included in the consolidated financial statements. The fees for other certification services primarily include attestation services outside of the audit of the annual financial statements. The fees for other services mainly include fees for project-specific consultancy services.

Use of exemption option
KSB Service GmbH, Frankenthal, KSB Service GmbH, Schwedt and Uder Elektromechanik GmbH, Friedrichsthal, have made partial use of the exemption provision under Section 264(3) HGB.

Events after the Reporting Period
There were no events after the end of the financial year that are of particular significance for the company's net assets, financial position and result of operations.

German Corporate Governance Code
The Managing Directors and the Supervisory Board of KSB SE & Co. KGaA issued the current Statement of Compliance with the recommendations of the Government Commission on the German Corporate Governance Code in accordance with Section 161 AktG [*Aktiengesetz* – German Public Companies Act] on 13 March 2019. The Statement of Compliance is published on the KSB web site (www.ksb.com) and has thus been made permanently accessible.

List of Shareholdings

Affiliates (national and international)

Cons. No.	Name and seat	Country	Activ-ity*	Capital share in %	Group share of capital in %	Held by No.
1	Canadian Kay Pump Limited, Mississauga / Ontario	Canada	H	100.00	100.00	
2	KSB Limited, Pimpri (Pune)	India	P	40.54	40.54	1
3	KSB MIL Controls Limited, Annamanada	India	P	49.00	19.86	2
				51.00	51.00	
4	Pofran Sales & Agency Limited, Pimpri (Pune)	India	S	100.00	40.54	2
5	Dynamik-Pumpen GmbH, Stuhr	Germany	SVC	100.00	100.00	
6	Hydroskepi GmbH, Amaroussion (Athens)	Greece	H	100.00	100.00	
7	KAGEMA Industrieausrüstungen GmbH, Pattensen	Germany	P	100.00	100.00	
8	KSB Armaturen Verwaltungs- und Beteiligungs-GmbH, Frankenthal	Germany	H	100.00	100.00	
9	OOO “KSB”, Moscow	Russia	S	100.00	100.00	8
10	KSB, Bombas e Válvulas, SA, Albarraque	Portugal	S	95.00	95.00	
11	KSB Chile S.A., Santiago	Chile	S	100.00	100.00	
12	KSB de Mexico, S.A. de C.V., Querétaro	Mexico	P	100.00	100.00	
13	KSB FINANZ S.A., Echternach	Luxembourg	H	100.00	100.00	
14	Aplicaciones Mecánicas Válvulas Industriales, S.A. (AMVI), Burgos	Spain	P	100.00	100.00	13
15	Dalian KSB AMRI Valves Co., Ltd., Dalian	China	P	100.00	100.00	13
16	KSB Australia Pty Ltd, Bundamba QLD	Australia	S	100.00	100.00	13
17	KSB New Zealand Limited, Albany / Auckland	New Zealand	S	100.00	100.00	16
18	KSB Belgium S.A., Bierges-lez-Wavre	Belgium	S	100.00	100.00	13
19	KSB Service Belgium S.A. / N.V., Bierges-lez-Wavre	Belgium	SVC	100.00	100.00	18
20	KSB BRASIL LTDA., Várzea Paulista	Brazil	P	100.00	100.00	13
21	KSB Compañía Sudamericana de Bombas S.A., Carapachay (Buenos Aires)	Argentina	P	95.00	95.00	13
				5.00	5.00	
22	KSB Finance Nederland B.V., Zwanenburg	The Netherlands	H	100.00	100.00	13
23	DP industries B.V., Alphen aan den Rijn	The Netherlands	P	100.00	100.00	22
24	KSB Nederland B.V., Zwanenburg	The Netherlands	S	100.00	100.00	22
25	KSB Italia S.p.A., Milan	Italy	S	99.00	99.00	13
				1.00	1.00	
26	KSB ITUR Spain S.A., Zarautz	Spain	P	100.00	100.00	13
27	KSB Limited, Loughborough	United Kingdom	S	100.00	100.00	13
28	KSB Middle East FZE, Dubai	U.A.E.	S	100.00	100.00	13
29	KSB Österreich Gesellschaft mbH, Vienna	Austria	S	100.00	100.00	13
30	KSB-Pompa, Armatür Sanayi ve Ticaret A.S., Ankara	Turkey	P	100.00	100.00	13
31	KSB Pumps Inc., Mississauga / Ontario	Canada	S	100.00	100.00	13
32	KSB Pumps (S.A.) (Pty) Ltd., Germiston (Johannesburg)	South Africa	H	100.00	100.00	13
33	KSB Pumps and Valves (Pty) Ltd., Germiston (Johannesburg)	South Africa	P	70.00	70.00	32
34	FORTY FOUR ACTIVIA PARK (PTY) LTD, Germiston (Johannesburg)	South Africa		100.00	70.00	33
35	KSB S.A.S., Gennevilliers (Paris)	France	P	100.00	100.00	13
36	KSB POMPES ET ROBINETTERIES S.à.r.l. d'Associé unique, Casablanca	Morocco	S	100.00	100.00	35
37	KSB Service EITB-SITELEC S.A.S., Montfavet	France	SVC	100.00	100.00	35
38	KSB Service Energie S.A.S.U., Rambervillers	France	SVC	100.00	100.00	35
39	KSB SERVICE COTUMER S.A.S., Déville lès Rouen	France	SVC	100.00	100.00	38
40	Société de travaux et Ingénierie Industrielle S.A.S., Déville lès Rouen	France	SVC	100.00	100.00	39

* P = Production, S = Sales, SVC = Service, H = Holding

Cons. No.	Name and seat	Country	Activ-ity*	Capital share in %	Group share of capital in %	Held by No.
41	SPI Energie S.A.S., La Ravoire	France	SVC	100.00	100.00	35
42	KSB Shanghai Pump Co., Ltd., Shanghai	China	P	80.00	80.00	13
43	KSB Verwaltung (Schweiz) AG, Reinach	Switzerland		100.00	100.00	13
44	PAB Pumpen- und Armaturen-Beteiligungsges. mbH, Frankenthal	Germany	H	51.00	51.00	13
45	KSB America Corporation, Richmond / Virginia	USA	H	100.00	51.00	44
46	GIW Industries, Inc., Grovetown / Georgia	USA	P	100.00	51.00	45
47	KSB Dubric, Inc., Comstock Park / Michigan	USA	SVC	100.00	51.00	45
48	KSB, Inc., Richmond / Virginia	USA	S	100.00	51.00	45
49	KSB, Inc. – Western Division, Bakersfield / California	USA	SVC	100.00	51.00	45
50	Standard Alloys Incorporated, Port Arthur / Texas	USA	SVC	100.00	51.00	45
51	PT. KSB Indonesia, Cibitung	Indonesia	P	94.06	94.06	13
				5.94	5.94	
52	PT. KSB Sales Indonesia, Cibitung	Indonesia	S	99.00	99.00	51
				1.00	1.00	
53	SISTO Armaturen S.A., Echternach	Luxembourg	P	52.85	52.85	13
54	KSB Finland Oy, Kerava	Finland	S	100.00	100.00	
55	KSB Hungary Kft., Budapest	Hungary	S	100.00	100.00	
56	KSB Korea Ltd., Seoul	South Korea	S	100.00	100.00	
57	KSB Limited, Hong Kong	China	S	100.00	100.00	
58	KSB Pump & Valve Technology Service (Tianjin) Co., Ltd, Tianjin	China	SVC	100.00	100.00	57
59	KSB Norge AS, Ski	Norway	S	100.00	100.00	
60	KSB Polska Sp. z o.o., Ozarow-Mazowiecki	Poland	S	100.00	100.00	
61	KSB Pumps and valves L.t.d., Domžale	Slovenia	S	100.00	100.00	
62	KSB Pumps Co. Ltd., Bangkok	Thailand	S	40.00	40.00	
63	KSB Pumps Company Limited, Lahore	Pakistan	P	58.89	58.89	
64	KSB-Pumpy+Armatury s.r.o., koncern, Prague	Czech Republic	S	100.00	100.00	
65	KSB (Schweiz) AG, Oftringen	Switzerland	S	100.00	100.00	
66	KSB Seil Co., Ltd., Busan	South Korea	P	100.00	100.00	
67	KSB Service GmbH, Frankenthal	Germany	SVC	100.00	100.00	
68	KSB Service GmbH, Schwedt	Germany	SVC	100.00	100.00	
69	KSB Singapore (Asia Pacific) Pte Ltd, Singapore	Singapore	S	100.00	100.00	
70	KSB Malaysia Pumps & Valves Sdn. Bhd., Shah Alam	Malaysia	S	100.00	100.00	69
71	KSB PHILIPPINES, INC., Makati City	Philippines	S	100.00	100.00	69
72	KSB Vietnam Co., Ltd, Long Thanh District	Vietnam	S	100.00	100.00	69
73	KSB Sverige Aktiebolag AB, Gothenburg	Sweden	S	100.00	100.00	
74	KSB Sverige Fastighets AB, Gothenburg	Sweden	S	100.00	100.00	73
75	PUMPHUSET Sverige AB, Sollentuna	Sweden	SVC	100.00	100.00	73
76	VM Pumpar AB, Gothenburg	Sweden	S	100.00	100.00	73
77	KSB Taiwan Co., Ltd., New Taipei City	Taiwan	S	100.00	100.00	
78	KSB Tech Pvt. Ltd., Pimpri (Pune)	India		100.00	100.00	
79	KSB Valves (Changzhou) Co., Ltd., Jiangsu	China	P	100.00	100.00	
80	PMS-BERCHEM GmbH, Neuss	Germany	SVC	100.00	100.00	
81	Pumpen-Service Bentz GmbH, Reinbek	Germany	SVC	100.00	100.00	
82	REEL s.r.l., Ponte di Nanto	Italy	P	100.00	100.00	
83	Uder Elektromechanik GmbH, Friedrichsthal	Germany	SVC	100.00	100.00	

* P = Production, S = Sales, SVC = Service, H = Holding

Joint ventures (national and international)

Cons. No.	Name and seat	Country	Activ-ity*	Capital share in %	Group share of capital in %	Held by No.	Equity** € thousands	Net profit/ loss for the year** € thousands
	National							
84	Nikkiso-KSB GmbH, Pegnitz	Germany		50.00	50.00		0	0
	International							
85	KSB MOTOR TEKNOLOJİLERİ SANAYİ VE TİCARET ANONİM ŞİRKETİ, Ankara	Turkey	P	55.00	55.00	30	83	7
86	KSB Pumps Arabia Ltd., Riyadh	Saudi Arabia	S	50.00	50.00	13	18,291	2,545
87	KSB Service LLC, Abu Dhabi	U.A.E.	S	49.00	49.00		7,317	278
88	Shanghai Electric-KSB Nuclear Pumps and Valves Co., Ltd., Shanghai	China	P	45.00	45.00		29,396	775

Associates (national and international)

Cons. No.	Name and seat	Country	Activ-ity*	Capital share in %	Group share of capital in %	Held by No.	Equity** € thousands	Net profit/ loss for the year** € thousands
	International							
89	Motori Sommersi Riavvolgibili S.r.l., Cedegolo	Italy		25.00	25.00		4,799	2,366

* P = Production, S = Sales, SVC = Service, H = Holding
** Data according to latest annual financial statements under IFRS

Companies not consolidated because of immateriality – Affiliates (national and international)

Cons. No.	Name and seat	Country	Activity*	Capital share in %	Group share of capital in %	Held by No.	Equity** € thousands	Net profit / loss for the year** € thousands	
	National								
90	FluidPartner GmbH, Stein	Germany	SVC	51.00	51.00	67	2	– 17	■
	International								
91	IOOO "KSB BEL", Minsk	Belarus	S	98.10	98.10	9	403	93	
				1.90	1.90	8			
92	KSB Algérie Eurl, Bordj el Kifane (Alger)	Algeria	S	100.00	100.00	13	953	137	
93	KSB Čerpadlá a Armatúry, s.r.o., Bratislava	Slovakia	S	100.00	100.00		333	43	
94	KSB Colombia SAS, Funza (Cundinamarca)	Colombia	S	100.00	100.00	13	312	94	
95	KSB Ltd., Tokyo	Japan	S	100.00	100.00		– 1,687	88	
96	KSB Perú S.A., Lurin	Peru	S	100.00	100.00		1,263	19	
97	KSB Pumpe i Armature d.o.o. Beograd, Belgrade	Serbia	S	100.00	100.00	61	140	20	
98	KSB pumpe i armature d.o.o., Rakov Potok	Croatia	S	100.00	100.00	61	191	24	
99	KSB ZAMBIA LIMITED, Kitwe	Zambia	SVC	60.00	60.00	32	119	47	
100	Techni Pompe Service Maroc (TPSM), Casablanca	Morocco	SVC	100.00	100.00	36	– 546	– 3	
101	TOO "KSB Kazakhstan", Almaty	Kazakhstan	S	100.00	100.00	9	169	48	
102	TOV "KSB Ukraine", Kiev	Ukraine	S	100.00	100.00	9	410	199	

* P = Production, S = Sales, SVC = Service, H = Holding
** Data according to latest annual financial statements under IFRS
■ Prior-period figures

Supervisory Board

Dr Bernd Flohr, Dipl.-Kfm., Dipl.-Soz., Geislingen
Former Executive Board Member of WMF AG
(Chairman)

Alois Lautner, Lathe Operator, Kirchenthumbach[1]
Deputy Chairman of the Pegnitz Works Council
of KSB SE & Co. KGaA
(Deputy Chairman of the Supervisory Board)

Claudia Augustin, Office Management Assistant, Pegnitz
Member of the Pegnitz Works Council of
KSB SE & Co. KGaA
(Member of the Supervisory Board since 16 May 2018)

Oswald Bubel, Dipl.-Betriebswirt, Saarbrücken[2]
Managing Director of Hager Electro GmbH & Co. KG
(Member of the Supervisory Board until 31 January 2018)

Klaus Burchards, Dipl.-Kfm., Stuttgart
Independent Auditor

Arturo Esquinca, Dipl.-Chemieing., Forch, Switzerland
Coesia Group, Industrial Process Division, Zurich, Switzerland
Head of Business Development
(Member of the Supervisory Board since 26 February 2018)

René Klotz, NC Programmer, Frankenthal
Chairman of the General Works Council of
KSB SE & Co. KGaA and KSB Service GmbH

Wolfgang Kormann, Hand Moulder, Pegnitz
Chairman of the Group Works Council of KSB SE & Co. KGaA
(Member of the Supervisory Board until 16 May 2018)

Klaus Kühborth, Dipl.-Wirtsch.-Ing., Frankenthal
Managing Director of Johannes und Jacob Klein GmbH
(formerly Klein Pumpen GmbH)

Monika Kühborth, Editor, Homburg/Saar[3]
Managing Director of Klein, Schanzlin & Becker GmbH
(Member of the Supervisory Board until 31 January 2018)

Birgit Mohme, Industrial Business Management Assistant, Frankenthal[4]
2. Delegate of IG Metall Ludwigshafen/Frankenthal

Thomas Pabst, Dipl.-Ing., Freinsheim
Head of Operations Europe Central at KSB SE & Co. KGaA
(Member of the Supervisory Board since 16 May 2018)

Prof. Dr.-Ing. Corinna Salander, Stuttgart[5]
Head of Railway Vehicle Technology, Stuttgart University
(Member of the Supervisory Board since 26 February 2018)

Volker Seidel, Electrical and Electronics Installer, Münchberg
1. Delegate of IG Metall Ostoberfranken

Gabriele Sommer, Dipl.-Geol., Wörthsee[6]
Global Head of Human Resources TÜV SÜD AG

Dr Hans-Stefan Wiß, Ludwigshafen am Rhein
Head of Legal & Compliance, KSB SE & Co. KGaA
(Member of the Supervisory Board until 16 May 2018)

Mandates of KSB Supervisory Board members on the Supervisory Board / Board of Directors of other companies

[1] BKK 24, Obernkirchen, Germany

[2] KSB Management SE, Frankenthal, Germany (Chair)

[3] KSB Management SE, Frankenthal, Germany (Deputy Chair)

[4] Deutsche Rentenversicherung Rheinland-Pfalz, Speyer, Germany

[5] Bombardier Transportation GmbH, Berlin, Germany
Scientific Committee of the Shift2Rail Joint Undertaking, Brussels, Belgium

[6] TÜV SÜD Industrie Service GmbH, Munich, Germany
TÜV SÜD Auto Service GmbH, Stuttgart, Germany

Legal Representatives

Managing Directors of KSB Management SE (from 17 January 2018, previously: Board of Management of KSB Aktiengesellschaft)

Dr Stephan Jörg Timmermann, CEO, Augsburg
Strategy, Human Resources, Communications, Internal Audits, Legal & Compliance, Patents & Trademarks as well as the Region Europe. He is also the spokesperson for Management.

Dr Stephan Bross, Freinsheim [1)]
Global Operations, Research / Technology / Complexity, Digital Transformation, Committees and Associations, the Corporate Units Pumps and Valves, as well as the Region Asia West and the Region Middle East / Africa.

Ralf Kannefass, Regensburg [2)]
Sales and Marketing, Service, Project Management, as well as the Region Asia North and the Region Asia South / Pacific.

Dr Matthias Schmitz, Frankenthal [3)]
Taxes, Controlling KSB Group, Finance / Accounting including coordination of Shared Services, Information Technology, Purchasing, as well as the Regions America North and America South.

Mandates of the Managing Directors on the Board of Directors of KSB companies

1) KSB Pumps (S.A.) (Pty) Ltd., Germiston (Johannesburg), South Africa
KSB Pumps and Valves (Pty) Ltd., Germiston (Johannesburg), South Africa
KSB Limited, Pimpri (Pune), India
KSB MOTOR TEKNOLOJİLERİ SANAYİ VE TİCARET ANONİM ŞİRKETİ, Ankara, Turkey

2) SISTO Armaturen S.A., Echternach, Luxembourg
KSB Shanghai Pump Co., Ltd., Shanghai, China
Shanghai Electric-KSB Nuclear Pumps and Valves Co., Ltd., Shanghai, China (supervisor)

3) KSB FINANZ S.A., Echternach, Luxembourg
KSB Finance Nederland B.V., Zwanenburg, the Netherlands
Canadian Kay Pump Limited, Mississauga / Ontario, Canada
KSB America Corporation, Richmond / Virginia, USA
KSB Limited, Pimpri (Pune), India
KSB Shanghai Pump Co., Ltd., Shanghai, China
Shanghai Electric-KSB Nuclear Pumps and Valves Co., Ltd., Shanghai, China
GIW Industries, Inc., Grovetown / Georgia, USA
KSB BRASIL LTDA., Várzea Paulista, Brazil
KSB Pumps Arabia Ltd., Riyadh, Saudi Arabia (from 9 July 2018)

Members of the Administrative Board of KSB Management SE

Oswald Bubel, Chair, Saarbrücken
Managing Director of Hager Electro GmbH & Co. KG

Monika Kühborth, Deputy Chair, Homburg
Managing Director of Klein, Schanzlin & Becker GmbH

Günther Koch, Ludwigshafen

Dr Harald Schwager, Speyer [1)]
Member and Deputy Chairman of the Executive Board of Evonik Industries AG

Andrea Teutenberg, Berlin [2)]
Managing Director of Orange12 GmbH

Mandates on statutory Supervisory Boards

1) Evonik Nutrition & Care GmbH, Essen, Germany (Chair)
Evonik Resource Efficiency GmbH, Essen, Germany (Chair)
Evonik Performance Materials GmbH, Essen, Germany (Chair)

2) Bauer AG, Schrobenhausen, Germany

Proposal on the Appropriation of the Net Retained Earnings of KSB SE & Co. KGaA

It will be proposed to the Annual General Meeting on 29 May 2019 that the net retained earnings of € 90,178,695.14 of KSB SE & Co. KGaA be appropriated as follows:

Proposal for the appropriation of net retained earnings

in €	
Dividend of € 3.00 per ordinary no-par-value share	2,659,845.00
Dividend of € 3.38 per preference no-par-value share	2,922,726.56
Total	**5,582,571.56**
Carried forward to new account	**84,596,123.58**
	90,178,695.14

Frankenthal, 13 March 2019

KSB Management SE

The Managing Directors

The annual financial statements of KSB SE & Co. KGaA were prepared in accordance with German accounting principles. They are published in the *Bundesanzeiger* [German Federal Gazette]. The annual financial statements can also be downloaded from our web site at www.ksb.com, or sent in print form on request.

5