

Consolidated Financial Statements of TRATON GROUP and related Notes

Consolidated Financial Statements of TRATON GROUP and related Notes

Consolidated Income Statement	3
Consolidated Statement of Comprehensive Income	4
Consolidated Balance Sheet	7
Consolidated Statement of Changes in Equity	9
Consolidated Cash Flow Statement	10
Notes to the Consolidated Financial Statements	11
1. Basis of presentation	11
2. Basis of consolidation	13
3. Accounting policies	16
4. Segment reporting	25
5. Noncurrent assets held for sale and discontinued operations	28
Consolidated income statement disclosures	31
6. Sales revenue	31
7. Cost of sales	33
8. Administrative expenses	33
9. Other operating income	33
10. Other operating expenses	34
11. Interest result	34
12. Other financial result	35
13. Income tax income/expense	35
14. Earnings per share	38
Consolidated balance sheet disclosures	39
15. Intangible assets	39
16. Property, plant and equipment	43
17. Lease assets	46
18. Equity-accounted investments and other equity investments	46
19. Noncurrent and current financial services receivables	50
20. Other financial assets	51
21. Other receivables	52
22. Inventories	52
23. Trade receivables	53
24. Marketable securities	53
25. Cash and cash equivalents	53
26. Equity	54
27. Financial liabilities	55
28. Other financial liabilities	56
29. Other liabilities	57
30. Provisions for pensions and other post-employment benefits	57
31. Other provisions	65
32. Put options and compensation rights granted to noncontrolling interest shareholders	66
Additional financial instruments disclosures in accordance with IFRS 7	66
Other disclosures	76
33. Consolidated cash flow statement	76
34. Financial risk management and financial instruments	78
35. Capital management	88
36. Contingencies and commitments	89
37. Litigation	90
38. Other financial obligations	91
39. Total personnel expense for the period	93
40. Related party disclosures in accordance with IAS 24	93
41. Events after the reporting period	96

Consolidated Income Statement

of TRATON GROUP for the years ended December 31, 2018, 2017 and 2016

€ million	Note	2018	2017	2016
Sales revenue	6	25,927	24,366	21,915
Cost of sales	7	-20,946	-19,653	-17,649
Gross profit		4,981	4,713	4,266
Distribution expenses		-2,391	-2,354	-2,316
Administrative expenses	8	-1,011	-872	-789
Net impairment losses on financial assets		-45	-44	-36
Other operating income	9	792	606	506
Other operating expenses	10	-814	-537	-904
Operating profit		1,513	1,512	727
Share of the result of equity-accounted investments		209	74	17
Interest income	11	83	91	79
Interest expenses	11	-245	-263	-298
Other financial result	12	6	-34	-32
Financial result		53	-132	-234
Earnings before tax		1,566	1,379	493
Income tax income/expense	13	-415	-489	-297
Current		-449	-377	-424
Deferred		34	-111	127
Result from continuing operations, net of tax		1,151	890	196
Result from discontinued operations, net of tax	5	250	149	22
Earnings after tax		1,401	1,039	219
of which attributable to				
Noncontrolling interests		11	10	10
TRATON SE (former TRATON AG) shareholders		1,390	1,029	208
Earnings per ordinary share from continuing operations attributable to TRATON SE (former TRATON AG) shareholders in € (basic/diluted)	14	115.1	89.0	19.6
Earnings per ordinary share attributable to TRATON SE (former TRATON AG) shareholders in € (basic/diluted)	14	139.0	102.9	20.8

Consolidated Statement of Comprehensive Income

Changes in consolidated comprehensive income of TRATON GROUP for the year ended December 31, 2018

€ million	Total	attributable to TRATON SE (former TRATON AG) shareholders	attributable to noncontrolling interests
Earnings after tax	1,401	1,390	11
Pension plan remeasurements recognized in other comprehensive income			
Pension plan remeasurements recognized in other comprehensive income, before tax	-49	-48	-1
Deferred taxes relating to pension plan remeasurements recognized in other comprehensive income	4	4	-0
Pension plan remeasurements recognized in other comprehensive income, net of tax	-45	-44	-1
Fair Value valuation of other participations and securities, net of tax	-2	-2	-0
Share of other comprehensive income of equity-accounted investments that will not be reclassified to profit or loss, net of tax	34	34	-
Items that will not be reclassified to profit or loss	-12	-12	-1
Exchange differences on translating foreign operations			
Unrealized currency translation gains/losses	-509	-509	0
Transferred to profit or loss	16	18	-2
Exchange differences on translating foreign operations, before tax	-492	-491	-1
Deferred taxes relating to exchange differences on translating foreign operations	3	3	-
Exchange differences on translating foreign operations, net of tax	-490	-488	-1
Cash flow hedges			
Fair value changes recognized in other comprehensive income	-21	-21	-0
Transferred to profit or loss	-12	-12	-0
Cash flow hedges, before tax	-33	-33	-0
Deferred taxes relating to cash flow hedges	12	12	0
Cash flow hedges, net of tax	-22	-22	-0
Fair value changes recognized in other comprehensive income (Cost of hedging)	-3	-3	0
Transferred to profit or loss (Cost of hedging)	5	5	-0
Cash flow hedges (Cost of hedging), before tax	1	1	-
Deferred taxes relating to cash flow hedges (Cost of hedging)	-1	-1	-
Cash flow hedges (Cost of hedging), net of tax	1	1	-
Share of other comprehensive income of equity-accounted investments that may be reclassified subsequently to profit or loss, net of tax	18	18	-
Items that may be reclassified subsequently to profit or loss	-492	-491	-1
Other comprehensive income, before tax	-521	-519	-2
Deferred taxes relating to other comprehensive income	17	17	0
Other comprehensive income, net of tax	-504	-502	-2
Total comprehensive income	896	887	9

Changes in consolidated comprehensive income of TRATON GROUP for the year ended December 31, 2017

€ million	Total	attributable to TRATON SE (former TRATON AG) shareholders	attributable to noncontrolling interests
Earnings after tax	1,039	1,029	10
Pension plan remeasurements recognized in other comprehensive income			
Pension plan remeasurements recognized in other comprehensive income, before tax	44	43	1
Deferred taxes relating to pension plan remeasurements recognized in other comprehensive income	-8	-8	-0
Pension plan remeasurements recognized in other comprehensive income, net of tax	36	35	1
Fair Value valuation of other participations and securities, net of tax	-0	-0	-
Share of other comprehensive income of equity-accounted investments that will not be reclassified to profit or loss, net of tax	95	95	-
Items that will not be reclassified to profit or loss	131	130	1
Exchange differences on translating foreign operations			
Unrealized currency translation gains/losses	-514	-512	-1
Transferred to profit or loss	-8	-8	-
Exchange differences on translating foreign operations, before tax	-521	-520	-1
Deferred taxes relating to exchange differences on translating foreign operations	-10	-10	-
Exchange differences on translating foreign operations, net of tax	-531	-530	-1
Cash flow hedges			
Fair value changes recognized in other comprehensive income	28	28	0
Transferred to profit or loss	-37	-37	0
Cash flow hedges, before tax	-9	-10	0
Deferred taxes relating to cash flow hedges	3	3	-0
Cash flow hedges, net of tax	-6	-6	0
Fair value changes recognized in other comprehensive income (Cost of hedging)	-7	-7	-
Transferred to profit or loss (Cost of hedging)	10	10	-
Cash flow hedges (Cost of hedging), before tax	3	3	-
Deferred taxes relating to cash flow hedges (Cost of hedging)	-2	-2	-
Cash flow hedges (Cost of hedging), net of tax	2	2	-
Share of other comprehensive income of equity-accounted investments that may be reclassified subsequently to profit or loss, net of tax	-91	-91	-
Items that may be reclassified subsequently to profit or loss	-626	-625	-1
Other comprehensive income, before tax	-478	-478	1
Deferred taxes relating to other comprehensive income	-17	-17	-0
Other comprehensive income, net of tax	-495	-495	0
Total comprehensive income	545	535	10

Changes in consolidated comprehensive income of TRATON GROUP for the year ended December 31, 2016

€ million	Total	attributable to TRATON SE (former TRATON AG) shareholders	attributable to noncontrolling interests
Earnings after tax	219	208	10
Pension plan remeasurements recognized in other comprehensive income			
Pension plan remeasurements recognized in other comprehensive income, before tax	-271	-270	-1
Deferred taxes relating to pension plan remeasurements recognized in other comprehensive income	74	73	1
Pension plan remeasurements recognized in other comprehensive income, net of tax	-198	-198	-0
Fair Value valuation of other participations and securities, net of tax	1	1	-
Share of other comprehensive income of equity-accounted investments that will not be reclassified to profit or loss, net of tax	-1	-1	-
Items that will not be reclassified to profit or loss	-198	-198	-0
Exchange differences on translating foreign operations			
Unrealized currency translation gains/losses	5	6	-1
Transferred to profit or loss	-	-	-
Exchange differences on translating foreign operations, before tax	5	6	-1
Deferred taxes relating to exchange differences on translating foreign operations	4	4	-
Exchange differences on translating foreign operations, net of tax	9	10	-1
Cash flow hedges			
Fair value changes recognized in other comprehensive income	87	87	0
Transferred to profit or loss	-68	-68	0
Cash flow hedges, before tax	19	19	0
Deferred taxes relating to cash flow hedges	-8	-8	-0
Cash flow hedges, net of tax	10	10	0
Fair value changes recognized in other comprehensive income (Cost of hedging)	19	19	-
Transferred to profit or loss (Cost of hedging)	-10	-10	-
Cash flow hedges (Cost of hedging), before tax	9	9	-
Deferred taxes relating to cash flow hedges (Cost of hedging)	-3	-3	-
Cash flow hedges (Cost of hedging), net of tax	6	6	-
Share of other comprehensive income of equity-accounted investments that may be reclassified subsequently to profit or loss, net of tax	2	2	-
Items that may be reclassified subsequently to profit or loss	28	29	-1
Other comprehensive income, before tax	-237	-236	-2
Deferred taxes relating to other comprehensive income	67	66	1
Other comprehensive income, net of tax	-170	-169	-1
Total comprehensive income	48	39	9

Consolidated Balance Sheet

Assets of TRATON GROUP as of December 31, 2018, 2017, 2016 and January 1, 2016

€ million	Note	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Assets					
Noncurrent assets					
Intangible assets	15	6,597	7,019	7,055	6,888
Property, plant and equipment	16	5,469	6,003	5,940	5,408
Lease assets	17	6,599	6,103	5,840	5,139
Equity-accounted investments	18	1,223	836	491	479
Other equity investments	18	37	50	65	54
Financial services receivables	19	4,212	3,805	3,237	2,873
Other financial assets	20	63	93	402	512
Other receivables	21	663	662	598	180
Tax receivables		50	59	76	50
Deferred tax assets	13	939	707	639	496
		25,851	25,337	24,344	22,078
Current assets					
Inventories	22	4,822	5,781	5,405	5,072
Trade receivables	23	2,319	3,048	2,860	2,670
Financial services receivables	19	2,688	2,319	2,112	1,764
Other financial assets	20	6,371	782	777	679
Other receivables	21	939	736	659	1,003
Tax receivables		140	117	113	156
Marketable securities	24	98	51	84	9
Cash and cash equivalents	25	2,997	4,594	4,907	6,575
Assets classified as held for sale	5	157	-	-	-
		20,533	17,428	16,916	17,928
Total assets		46,384	42,765	41,260	40,006

Equity and liabilities of TRATON GROUP as of December 31, 2018, 2017, 2016 and January 1, 2016

€ million	Note	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Equity and Liabilities					
Equity	26				
Subscribed capital		10	10	10	10
Capital reserves		21,331	24,581	24,271	24,271
Retained earnings		-2,064	-10,760	-11,817	-12,059
Other comprehensive income		-2,478	-2,130	-1,635	-1,466
Equity attributable to TRATON SE (former TRATON AG) shareholders		16,799	11,702	10,829	10,756
Noncontrolling interests		2	108	102	96
		16,801	11,810	10,931	10,852
Noncurrent liabilities					
Financial liabilities	27	5,449	5,545	3,555	4,899
Tax payables		122	-	-	-
Other financial liabilities	28	2,333	2,239	2,105	2,144
Other liabilities	29	1,780	1,963	1,994	1,469
Deferred tax liabilities	13	824	612	389	520
Provisions for pensions	30	1,506	1,541	1,526	1,295
Provisions for taxes		16	18	127	62
Other provisions	31	1,184	1,319	1,393	916
		13,217	13,238	11,087	11,305
Current liabilities					
Put options and compensation rights granted to noncontrolling interest shareholders	32	1,827	3,795	3,849	3,932
Financial liabilities	27	5,366	3,426	5,485	2,593
Trade payables		2,969	3,507	3,362	2,976
Tax payables		125	253	256	148
Other financial liabilities	28	1,620	1,176	1,060	3,382
Other liabilities	29	3,263	4,072	3,681	3,407
Provisions for taxes		137	129	27	27
Other provisions	31	938	1,359	1,522	1,383
Liabilities directly associated with assets classified as held for sale	5	123	-	-	-
		16,366	17,717	19,241	17,849
Total equity and liabilities		46,384	42,765	41,260	40,006

Consolidated Statement of Changes in Equity

of TRATON GROUP for the years ended December 31, 2018, 2017 and 2016

€ million	OTHER RESERVES											Total equity
	Subscribed capital	Capital reserves	Retained earnings	Items that may be reclassified subsequently to profit or loss		Items that will not be reclassified to profit or loss			Investments valuation reserve	Equity attributable to TRATON SE (former TRATON AG) shareholders	Non-controlling interests	
				Currency translation reserve	Cash flow hedge reserve	Equity-accounted investments	Pension plan reserve	Equity-accounted investments				
Balance at Jan. 1, 2018	10	24,581	-10,760	-1,274	14	-80	-882	89	3	11,702	109	11,810
Earnings after tax	-	-	1,390	-	-	-	-	-	-	1,390	11	1,401
Other comprehensive income, net of tax	-	-	-	-488	-21	18	-44	34	-2	-502	-2	-504
Total comprehensive income	-	-	1,390	-488	-21	18	-44	34	-2	887	9	896
Loss absorption by Volkswagen AG	-	-	4,161	-	-	-	-	-	-	4,161	-	4,161
Dividends allocated to noncontrolling interest shareholders	-	-	-	-	-	-	-	-	-	-	-4	-4
Other changes	-	-3,250	3,144	0	-	-	157	-	-2	50	-113	-63
Balance at Dec. 31, 2018	10	21,331	-2,064	-1,762	-6	-62	-770	124	-1	16,799	2	16,801
Balance at Jan. 1, 2017	10	24,271	-11,817	-744	19	11	-917	-6	3	10,829	102	10,931
Earnings after tax	-	-	1,029	-	-	-	-	-	-	1,029	10	1,039
Other comprehensive income, net of tax	-	-	-	-530	-5	-91	35	95	-0	-495	0	-495
Total comprehensive income	-	-	1,029	-530	-5	-91	35	95	-0	535	10	545
Capital increases	-	311	0	-	-	-	-	-	-	311	0	311
Loss absorption by Volkswagen AG	-	-	28	-	-	-	-	-	-	28	-	28
Dividends allocated to noncontrolling interest shareholders	-	-	-	-	-	-	-	-	-	-	-4	-4
Other changes	-	-	-	-	-	-	-	-	-	0	0	0
Balance at Dec. 31, 2017	10	24,581	-10,760	-1,274	14	-80	-882	89	3	11,702	108	11,810
Balance at Jan. 1, 2016	10	24,271	-12,059	-755	3	9	-719	-5	2	10,756	96	10,852
Earnings after tax	-	-	208	-	-	-	-	-	-	208	10	219
Other comprehensive income, net of tax	-	-	-	10	16	2	-198	-1	1	-169	-1	-171
Total comprehensive income	-	-	208	10	16	2	-198	-1	1	39	9	48
Loss absorption by Volkswagen AG	-	-	32	-	-	-	-	-	-	32	-	32
Dividends allocated to noncontrolling interest shareholders	-	-	-	-	-	-	-	-	-	-	-4	-4
Other changes	-	-	3	-	-	-	-	-	-	3	2	4
Balance at Dec. 31, 2016	10	24,271	-11,817	-744	19	11	-917	-6	3	10,829	102	10,931

Consolidated Cash Flow Statement

of TRATON GROUP for the years ended December 31, 2018, 2017 and 2016

€ million	2018	2017	2016
Cash and cash equivalents at beginning of period	4,594	4,907	6,575
Earnings before tax	1,566	1,379	493
Income taxes paid	-420	-303	-199
Depreciation and amortization of, and impairment losses on, intangible assets, property, plant and equipment, and investment property*	639	589	555
Amortization of and impairment losses on capitalized development costs*	170	225	237
Impairment losses on equity investments*	6	1	0
Depreciation of and impairment losses on lease assets*	1,090	1,128	1,074
Change in pensions	57	13	23
Gain/loss on disposal of noncurrent assets and equity investments	13	-13	-11
Share of profit or loss of equity-accounted investments	-347	-63	-12
Other noncash expense/income	81	21	137
Change in inventories	-632	-482	-353
Change in receivables (excluding financial services)	-269	-415	-342
Change in liabilities (excluding financial liabilities)	993	1,121	1,392
Change in provisions	51	-70	415
Change in lease assets	-1,598	-1,408	-1,852
Change in financial services receivables	-947	-952	-919
Cash flows from operating activities - discontinued operations	-72	-46	118
Cash flows from operating activities	382	726	758
Investments in intangible assets (excluding development costs), property, plant and equipment, and investment property	-935	-849	-1,057
Additions to capitalized development costs	-449	-416	-400
Acquisition of subsidiaries	6	-0	-4
Acquisition of other equity investments	-17	-272	-7
Disposal of subsidiaries	394	-0	-0
Disposal of other equity investments	0	7	-0
Proceeds from disposal of intangible assets, property, plant and equipment, and investment property	69	43	43
Change in investments in securities	-49	31	-83
Changes in loans and time deposits	100	269	50
Cash flows from investing activities - discontinued operations	-184	-174	-186
Cash flows from investing activities	-1,065	-1,361	-1,643
Capital contributions	-0	311	0
Profit transfer to/loss absorption by Volkswagen AG	28	32	-2,365
Dividends paid to minorities	-	-	-0
Other changes	-	0	-0
Proceeds from issuance of bonds	2,162	2,264	751
Repayments of bonds	-720	-2,090	-1,105
Changes in other financial liabilities	-2,329	-114	1,963
Finance lease payments	1	-2	-2
Cash flows from financing activities - discontinued operations	-7	-8	-16
Cash flows from financing activities	-865	392	-775
Effect of exchange rate changes on cash and cash equivalents	-48	-71	-8
Net change in cash and cash equivalents	-1,596	-314	-1,667
Cash and cash equivalents at end of period	2,997	4,594	4,907

*Net of impairment reversals.

Notes to the Consolidated Financial Statements

of TRATON GROUP for the years ended December 31, 2018, 2017 and 2016

1. Basis of presentation

GENERAL INFORMATION

TRATON SE (“the Company”, “TRATON”), formerly Volkswagen Truck & Bus GmbH, Volkswagen Truck & Bus AG, TRATON AG, was converted into a public company by shareholder resolution of June 14, 2018. The change in legal form became effective upon the registration in the commercial register on June 26, 2018. From August 30, 2018 to January 16, 2019 the Company, formerly named Volkswagen Truck & Bus AG, operated under the name TRATON AG. With effect from May 18, 2018, the Company’s registered office was transferred from Braunschweig to Munich, Germany. By resolution of December 14, 2018 the Company changed its legal form to a European Stock Corporation (Societas Europaea/SE). The change in legal form became effective upon the registration in the commercial register on January 17, 2019. Since then TRATON is registered in the commercial register at the Munich Local Court under No. 246068.

TRATON with its brands MAN, Scania, Volkswagen Caminhões e Ônibus, and RIO is a commercial vehicle manufacturer. Its offering comprises light-duty commercial vehicles, trucks, and buses, as well as the sale of related genuine parts and customer services. The RIO brand provides a growing portfolio of digital services and solutions. In addition, TRATON offers a wide array of financial services for commercial vehicle customers.

The fiscal year corresponds to the calendar year. TRATON SE is a wholly owned direct subsidiary of Volkswagen Aktiengesellschaft, Wolfsburg (Volkswagen AG). TRATON SE and its subsidiaries (“TRATON GROUP”) are included in Volkswagen AG’s consolidated financial statements, which are published in the Bundesanzeiger (German Federal Gazette).

In accordance with Regulation No. 1606/2002 of the European Parliament and of the Council, TRATON GROUP prepared its consolidated financial statements for the fiscal years ended December 31, 2018, 2017 and 2016 in compliance with the International Financial Reporting Standards (IFRS), as adopted by the European Union. We have complied with all the IFRSs adopted by the EU and required to be applied. The Executive Board prepared these consolidated financial statements on February 14, 2019, and resolved to authorize them for submission to the Supervisory Board. On that date, the period ended in which adjusting events after the reporting period are recognized.

The consolidated financial statements were prepared in euros. Unless otherwise stated, all amounts are given in millions of euros (€ million). All figures are shown rounded, so minor discrepancies may arise from addition of these amounts.

Preparation of the consolidated financial statements in accordance with IFRS requires management to make estimates that affect the reported amounts of certain items in the consolidated balance sheet and in the consolidated income statement, as well as the related disclosure of contingent assets and liabilities. The consolidated financial statements present fairly the net assets, financial position and results of operations as well as the cash flows of the TRATON GROUP.

FIRST-TIME ADOPTION OF IFRS

These consolidated financial statements, for the years ended December 31, 2018, 2017 and 2016, are the first the TRATON GROUP has prepared in accordance with IFRS as it is a first-time adopter. Accordingly, the Group has prepared consolidated financial statements that comply with IFRS applicable as of December 31, 2018. In preparing the consolidated financial statements, the Group’s opening consolidated balance sheet was prepared as of January 1, 2016, the Group’s date of transition to IFRS.

As the Group did not previously prepare any consolidated financial statements, no reconciliation of equity according to IFRS 1 is required for the purpose of these consolidated financial statements. The TRATON GROUP did not apply any optional exemptions from retrospective application of IFRS.

GROUP RESTRUCTURING PROCESS

The TRATON GROUP in its current structure was set up in several steps following a reorganization of Volkswagen AG's Commercial Vehicles business area. In April 2013, Volkswagen AG contributed its 75.2% shareholding in MAN SE to TRATON for no consideration. In August 2013, Volkswagen AG merged its 100% interest in Volkswagen Gebrauchtfahrzeughandels und Service GmbH („VGSG“) into Volkswagen Qualifizierungsgesellschaft GmbH, a subsidiary of TRATON. After the merger, the name of VGSG was continued. In a next step, in March 2016, Volkswagen contributed its 86% interest in Scania Aktiebolag (“Scania AB”) to TRATON for no consideration. Together with the shares in Scania held by MAN SE, TRATON now is the sole shareholder of Scania AB. The contributions in kind from Volkswagen AG were recognized in TRATON's capital reserve.

As TRATON and Scania were controlled by Volkswagen AG both before and after the contribution of Scania into TRATON, this business combination is a common control transaction. As such, TRATON has applied the accounting policy to show Scania in its consolidated financial statements at the book values of its ultimate parent, Volkswagen AG. This also includes the adjustments of Scania book values at Volkswagen AG level resulting from the purchase price allocation (“PPA”) effected following the acquisition of Scania by Volkswagen AG in 2008, including goodwill resulting from this transaction. In addition, TRATON has applied the accounting policy for business combinations under common control to restate its carrying amounts before the date of the transaction to present its consolidated financial statements as if the combination had occurred before the start of the earliest date presented (i.e. January 1, 2016).

The book values of MAN SE were continued in the TRATON consolidated financial statements and thus do not include the PPA values resulting from the acquisition of MAN SE by Volkswagen AG. This is because the contribution of MAN SE into TRATON in 2013 represented a group reorganization and did not meet the definition of a business combination. The difference between the value of the MAN SE shares at which they were contributed to TRATON SE and the recognized book value of corresponding assets and liabilities was recognized in retained earnings.

In October 2018, TRATON decided to sell its Power Engineering business (comprising large-bore diesel and gas engines, turbomachinery, industrial turbines, chemical reactor systems, special gear units, propulsion components and testing systems) to a Volkswagen Group entity outside the TRATON GROUP. The sale comprised the shares of TRATON (held indirectly through MAN SE or one of its subsidiaries) in Power Engineering, i.e. the 76% stake in RENK Aktiengesellschaft (RENK), the 100% stake in MAN Energy Solutions SE (MAN ES) and the 100% stake in MAN Energy Solutions USA Inc. (MAN ES USA). In addition, three German real-estate holding companies held by MAN SE were included in the sale. The share purchase agreements for the sale were signed on December 20, 2018 and the sale was effected on December 31, 2018. The aggregate purchase price for the stakes in MAN ES and RENK amounted to €1,874 million. The purchase price for the stake in MAN ES USA amounted to approximately €87 million. The aggregate purchase prices for the three real estate companies amounted to approximately €20 million.

In addition, as per January 1, 2019, VGSG was sold for a consideration of €113 thousand to a subsidiary of Volkswagen AG outside the TRATON GROUP.

NEW AND AMENDED IFRSs NOT YET APPLIED

TRATON has adopted and applied consistently over all periods presented in the consolidated financial statements all accounting standards mandatorily effective for the first-time as of the year end 2018, including IFRS 9, Financial Instruments, and IFRS 15, Revenue from Contracts with Customers. The following new or amended standards and interpretations will only become mandatory in the EU in subsequent financial years. With the exception of IFRS 16, Leases, this is not expected to have any significant effect to TRATON.

The Group does not intend to early-adopt any of the standards or amendments.

Standard/Interpretation		Published by the IASB	Application mandatory ¹	Adopted by the EU	Expected impact
IFRS 16	Leases	Jan 13, 2016	Jan 1, 2019	Oct 31, 2017	Detailed descriptions after the tabular overview
IFRS 17	Insurance Contracts	May 18, 2017	Jan 1, 2021	Not yet adopted	
IFRIC 23	Uncertainty over Income Tax Treatment	June 7, 2017	Jan 1, 2019	Oct 23, 2018	No material impact
Amendments to IFRS 3	Definition of a Business	Oct 22, 2018	Jan 1, 2020	Not yet adopted	No material impact
Amendments to IFRS 9	Prepayment Features with Negative Compensation	Oct 12, 2017	Jan 1, 2019	Mar 22, 2018	None
Amendments to IFRS 10 and IAS 28	Consolidated Financial Statements and Investments in Associates and Joint Ventures: Sales or contributions of assets between an investor and its associate/joint venture	Sep 11, 2014	Deferred ²	-	None
Amendments to IAS 1 and IAS 8	Definition of Material	Oct 31, 2018	Jan 1, 2020	Not yet adopted	None
Amendments to IAS 19	Plan amendment, curtailment or settlement	Feb 7, 2018	Jan 1, 2019	Not yet adopted	No material impact
Amendments to IAS 28	Long-term interests in Associates and Joint Ventures	Oct 12, 2017	Jan 1, 2019	Feb 11, 2019	No material impact
Annual improvement project	Improvements to IFRS Standards 2015-2017 Cycle ³	Dec 12, 2017	Jan 1, 2019	Not yet adopted	No material impact

¹ Mandatory first-time application for the TRATON GROUP.

² The IASB decided on December 15, 2015 to indefinitely defer the date of first-time adoption.

³ Minor amendments to a number of IFRSs (IFRS 3, IFRS 11, IAS 12, and IAS 23).

IFRS 16 – LEASES

IFRS 16 changes the accounting requirements for leases and replaces the previous standard IAS 17 and related interpretations. The main objective of IFRS 16 is to recognize all leases on the consolidated balance sheet. It establishes that lessees are no longer required to classify their leases as finance leases or operating leases. In the future, they will instead be required to recognize a right-of-use asset and a lease liability for all leases on the consolidated balance sheet. Exceptions will only be made for short-term leases and leases of low-value assets. The right-of-use asset must be amortized over the lease term and the lease liability adjusted using the effective interest method, taking into account the lease payments. Lessor accounting largely corresponds to the current provisions of IAS 17. In the future, lessors will continue to classify their leases as finance leases or operating leases based on the risks and rewards incidental to ownership of the leased asset.

The TRATON GROUP applies the modified retrospective transition method for the first-time adoption of IFRS 16. As a result of the first-time recognition of the right-of-use assets and corresponding lease liabilities at the same amount the consolidated balance sheet total will increase according to the preliminary assessment by approximately 2%. The increase in financial liabilities has a negative impact on the net liquidity of the TRATON GROUP. No significant impact on equity is expected. In contrast to the previous approach to include expenses for operating leases in the operating profit, under IFRS 16 only the amortization of the right-of-use assets is included in the operating profit. Interest expenses from the compounding of the lease liability are shown in the financial result. Based on the lease contracts existing as of January 1, 2019, an increase in operating profit in the low two-digit millions of euros is expected. The changed recognition of expenses from operating leases in the consolidated cash flow statement results in a slight improvement of the cash flow from operating activities and an equivalent decline of the cash flow from financing activities.

The application of IFRS 16 will also lead to far more extensive disclosures.

2. Basis of consolidation

In addition to TRATON SE, the consolidated financial statements comprise all significant subsidiaries that are controlled directly or indirectly by TRATON SE. This is the case if TRATON SE obtains power over the potential subsidiaries directly or

indirectly from voting rights or similar rights, is exposed, or has rights to, positive or negative variable returns from its involvement with the subsidiaries, and is able to influence those returns. Consolidation of subsidiaries begins at the first date on which control exists, and ends when such control no longer exists. Subsidiaries that are acquired during the fiscal year are consolidated from the date when control exists. Companies that are disposed of in the fiscal year are deconsolidated from the date when control no longer exists.

Subsidiaries whose business is dormant or of low volume and that are insignificant, both individually and in the aggregate, for the fair presentation of the net assets, financial position and results of operations as well as the cash flows of the TRATON GROUP are not consolidated.

Significant companies where TRATON is able, directly or indirectly, to significantly influence financial and operating policy decisions (associates), or that are directly or indirectly jointly controlled (joint ventures), are accounted for using the equity method. As a rule, significant influence is assumed when TRATON holds between 20% and 50% of the voting rights. Associates also include companies where TRATON has significant influence through participation in financial and operating policy decisions without having control. Insignificant associates and joint ventures are carried at cost net of any impairment losses and reversals of impairment losses required to be recognized.

All other investees are financial investments.

The composition of the TRATON GROUP is shown in the following table:

	2018	2017	2016
TRATON SE and consolidated subsidiaries			
Germany	26	32	33
Abroad	258	306	312
Subsidiaries carried at cost			
Germany	7	9	8
Abroad	15	61	56
Associates, joint ventures and other equity investments			
Germany	7	9	10
Abroad	17	16	11

CONSOLIDATED SUBSIDIARIES

Number	2018		2017		2016	
	Germany	Abroad	Germany	Abroad	Germany	Abroad
Initially consolidated						
of which: subsidiaries previously carried at cost	1	-	-	1	1	2
of which: previously equity-accounted investments	-	1	-	-	-	-
of which: newly acquired subsidiaries	-	-	-	1	-	1
of which: newly formed subsidiaries	-	5	-	5	-	1
	1	6	-	7	1	4
Deconsolidated						
of which: mergers	-	10	-	1	-	-
of which: liquidations	-	-	1	-	-	-
of which: sales/other	7	44	-	12	-	3
	7	54	1	13	-	3

The increase of deconsolidated entities in 2018 is mainly due to the sale of the Power Engineering business (see note “Noncurrent Assets held for sale and discontinued operations”).

The list of all shareholdings that form part of the annual consolidated financial statements of TRATON GROUP can be found in Annex 1.

The assets and liabilities of the companies included in the consolidated financial statements are recognized in accordance with the uniform accounting policies used within the TRATON GROUP. In the case of companies accounted for using the equity method, the same accounting policies are applied to determine the proportionate equity, based on the most recent audited annual consolidated financial statements of each company.

Business combinations are accounted for using the acquisition method of accounting. In the case of subsidiaries consolidated for the first time, assets and liabilities are measured at their fair values at the date of acquisition. Their carrying amounts are adjusted in subsequent years. Goodwill arises when the consideration paid for the investment exceeds the fair value of identifiable net assets. Goodwill is tested for impairment once a year to determine whether its carrying amount is recoverable. If the carrying amount of goodwill is higher than the recoverable amount, an impairment loss must be recognized. If the consideration paid for the investment is less than the identifiable net assets, the difference is recognized in the consolidated income statement in the year of acquisition. Any difference that arises from the acquisition of additional shares of an already consolidated subsidiary is taken directly to equity. Unless otherwise stated, the proportionate equity directly attributable to noncontrolling interests is determined at the acquisition date as the share of the fair value of the assets (excluding goodwill) and liabilities attributable to them. Contingent consideration is measured at fair value at the acquisition date. Subsequent changes in the fair value of contingent consideration do not result in the adjustment of the acquisition-date measurement. Acquisition-related costs that are not equity transaction costs are not added to the consideration paid, but instead are recognized as expenses in the period in which they are incurred.

The consolidation process involves adjusting the items in the separate financial statements of the parent and its subsidiaries and presenting them as if they were those of a single economic entity. Intragroup assets, liabilities, equity, income, expenses and cash flows are eliminated in full. Intercompany profits or losses are eliminated in Group inventories and noncurrent assets. Deferred taxes are recognized for consolidation adjustments, and deferred tax assets and liabilities are offset where taxes are levied by the same tax authority and relate to the same tax period.

CURRENCY TRANSLATION

Transactions in foreign currencies are translated in the single-entity financial statements of TRATON SE and its consolidated subsidiaries at the rates prevailing at the transaction date. Foreign currency monetary items are recorded in the balance sheet using the middle rate at the closing date. Foreign exchange gains and losses are recognized in the consolidated income statement.

The financial statements of foreign companies are translated into euros using the functional currency concept, under which asset and liability items are translated at the closing rate. With the exception of gains and losses recognized directly in equity, equity is translated at historical rates. The resulting foreign exchange differences are recognized in other comprehensive income until disposal of the subsidiary concerned, and are presented as a separate item in equity. Income statement items are translated into euros at weighted average rates.

The table below summarizes the principle exchange rates that have been used for foreign currency translation purposes of the Group:

Country	Currency (€1=)	Period-end exchange rate				Average exchange rate		
		Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016	2018	2017	2016
Brazil	BRL	4.44485	3.97065	3.43720	4.31170	4.30729	3.60471	3.86217
Denmark	DKK	7.46705	7.44510	7.43500	7.46260	7.45304	7.43871	7.44537
Great Britain	GBP	0.89690	0.88730	0.85850	0.73395	0.88476	0.87626	0.81897
Mexico	MXN	22.52035	23.61420	21.84800	8.91450	22.71496	21.33175	20.66535
Sweden	SEK	10.25070	9.83140	9.56720	9.18950	10.25830	9.63700	9.46712
USA	USD	1.14525	1.19875	1.05600	1.08870	1.18156	1.12933	1.10675

HYPERINFLATIONARY ECONOMIES

During 2018 Argentina was defined as a hyperinflationary economy and as a result the TRATON subsidiary Scania Argentina S.A. became hyperinflationary in that year. The entity has therefore adjusted its non-monetary items for inflation. The inflation adjustment has been remeasured using CPI Consumer Price index with an average rate of 184.13. The cumulative effect as of January 1, 2018 amounting to €48 million, net of tax, has been recognized in retained earnings, and adjustments of the year 2018 have been accounted for in other financial result. The figures in the TRATON consolidated financial statements for 2016 and 2017 have not been restated as they are presented in a currency which is that of a non-hyperinflationary economy. As from January 1, 2019 Scania Argentina S.A. will change its functional currency to USD as its economic environment is significantly influenced by the USD. As a result, non-monetary assets will no longer be inflation-adjusted from that date.

3. Accounting policies

With certain exceptions such as financial instruments measured at fair value and provisions for pensions and other post-employment benefits, items in the TRATON GROUP are accounted for under the historical cost convention, adjusted for the effects of inflation where entities operate in hyperinflationary economies. The methods used to measure the individual items are explained in more detail below.

In light of the domination and profit and loss transfer agreement entered into by TRATON SE and Volkswagen AG, the accompanying consolidated financial statements have been prepared following appropriation of net profit by Volkswagen AG. Profit and loss transfers from and to Volkswagen AG are shown directly in equity as transactions with the shareholder.

The consolidated income statement was prepared using the cost of sales method.

INTANGIBLE ASSETS

The intangible assets of the TRATON GROUP mainly include brands, customer relationships, software and capitalized development costs.

Purchased intangible assets are recognized at cost and amortized over their useful life using the straight-line method.

Development costs for future series products and other internally generated intangible assets are capitalized at cost, provided manufacture of the products is likely to bring the TRATON GROUP an economic benefit. If the criteria for recognition as assets are not met, the expenses are recognized in the consolidated income statement in the year in which they are incurred. Research costs are recognized as expenses when incurred. Capitalized development costs include all direct and indirect costs that are directly attributable to the development process. The costs are amortized using the straight-line method from the start of production over the expected life cycle of the models or technology developed.

Intangible assets acquired in the course of a business combination are measured at their fair value at the acquisition date. Brand names from business combinations usually have an indefinite useful life and therefore are not amortized. An indefinite useful life is usually the result of a brand's further use and maintenance.

The amortization period for software is mainly 3 to 5 years. Capitalized development costs are amortized over 3 to 10 years. Customer relationships are amortized over 20 years.

Amortization recognized during the year is allocated to the relevant functions in the consolidated income statement. Goodwill, intangible assets with indefinite useful lives and intangible assets that are not yet available for use are tested for impairment at least once a year. Assets in use and other intangible assets with finite useful lives are tested for impairment only if there are specific indications that they may be impaired. The TRATON GROUP generally applies the higher of value in use and fair value less costs of disposal of the relevant asset or cash-generating unit to determine the recoverability of goodwill and indefinite-lived intangible assets. Value in use is the present value of the future cash flows expected to be derived from the asset. If no recoverable amount can be measured for an individual asset, the recoverable amount is determined for the smallest identifiable group of assets that generate cash flows (cash-generating unit) to which the asset belongs. For impairment testing purposes, goodwill is allocated to the relevant cash-generating unit to which the goodwill relates. If an asset's recoverable amount is less than its carrying amount, an impairment loss is recognized immediately in profit or loss.

Value in use is determined for the purpose of impairment testing of goodwill, indefinite-lived intangible assets and finite-lived intangible assets – mainly capitalized development costs – using the following pre-tax weighted average cost of capital (WACC) rates, which are adjusted if necessary for country-specific discount factors:

WACC	2018	2017	2016
Volkswagen Caminhões & Ônibus	10.6%	10.6%	10.9%
MAN Truck & Bus	7.0%	6.8%	6.5%
Scania Vehicles & Services	7.0%	6.8%	6.5%
MAN Energy Solutions	-	8.0%	7.7%

The WACC rates are calculated based on the risk-free rate of interest, a market risk premium and the cost of debt. Additionally, specific peer group information on beta factors and leverage are taken into account. The composition of the peer groups used to determine beta factors is continuously reviewed and adjusted if necessary.

PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment is carried at cost less depreciation and – where necessary – write-downs for impairment. Cost is determined based on the direct and indirect costs that are directly attributable. The production cost of internally manufactured items of property, plant, and equipment comprises directly attributable production costs and proportionate production overheads. Borrowing costs are included in the cost of assets that take a substantial period to get ready.

Property, plant and equipment is depreciated using the straight-line method over its estimated useful life. If items of property, plant, and equipment consist of significant identifiable components with different useful lives, such components are recognized and depreciated separately. The useful lives of items of property, plant and equipment are reviewed on a regular basis and adjusted if required.

Depreciation is based mainly on the following useful lives: buildings (10 to 100 years), site improvements (5 to 33 years), production plant and machinery (3 to 12 years), and other equipment, operating and office equipment (3 to 15 years).

Where leased items of property, plant and equipment are used, the criteria for classification as a finance lease as set out in IAS 17 are met if all material risks and rewards incidental to ownership have been transferred to the Group. In such cases, the assets concerned are recognized at fair value or at the present value of the minimum lease payments (if lower) and depreciated using the straight-line method over the asset's useful life, or over the term of the lease if this is shorter. The payment obligations arising from the future lease payments are discounted and recorded as a liability in the consolidated balance sheet.

Where Group companies are the lessees of assets under operating leases, i.e. if not all material risks and rewards are transferred, lease and rental payments are recorded directly as expenses in profit or loss.

INVESTMENT PROPERTY

Real estate and buildings held in order to obtain rental income (investment property) are measured at cost less accumulated depreciation and impairment losses and (except for land) depreciated by the straight-line method over its estimated useful life; the useful lives applied to depreciation generally correspond to those of the property, plant and equipment used by the Group itself. The fair value of this investment property is disclosed in the notes. Fair value is estimated using internal calculations or appraisals prepared by external experts (based on recognized valuation techniques). These can be reused in subsequent years by adjusting the changing variables. This procedure involves determining the income value based on the rental income, taking into account additional factors such as land value, remaining useful life, administrative and maintenance costs, and a multiplier specific to commercial property. For reasons of materiality, the disclosures on investment property are combined with the disclosures on property, plant, and equipment.

LEASE ASSETS

Products sold with a buyback obligation are reported under “Lease assets” if TRATON GROUP retains the risks and rewards associated with the products. Vehicles leased out under operating leases are recognized at cost and depreciated to their estimated residual value using the straight-line method over the term of the lease. Impairment losses identified as a result of an impairment test in accordance with IAS 36 are recognized and the future depreciation rate is adjusted. The forecast residual values are adjusted to include constantly updated internal and external information on residual values, depending on specific local factors and the experiences gained in the marketing of used vehicles.

EQUITY-ACCOUNTED INVESTMENTS

Equity-method investments include associates and joint ventures. Associates and joint ventures are initially measured at cost. In subsequent periods, the TRATON GROUP’s share of profits and losses generated after acquisition is recognized in the consolidated income statement. Other changes in the equity of associates and joint ventures, such as currency translation differences, are recognized in other comprehensive income. Intercompany profits or losses from transactions by Group companies with associates and joint ventures are eliminated ratably in the profit or loss of the Group companies. If there are indications that the carrying amount may be impaired, equity-method investments are tested for impairment; any impairment loss and the reversal of a previous impairment loss are recognized in the financial result.

The cost of equity-accounted investments is adjusted to reflect the share of increases or reductions in equity at the associates and joint ventures after the acquisition that is attributable to the TRATON GROUP, as well as any effects from purchase price allocation.

Goodwill arising from the acquisition of an associate or joint venture is included in the carrying amounts of investments in associates or joint ventures.

NON-DERIVATIVE FINANCIAL INSTRUMENTS

Non-derivative financial instruments include in particular customer receivables, financial services receivables, loans, and cash and cash equivalents, as well as financial liabilities, trade payables, and liabilities from buyback obligations. Cash and cash equivalents include bank balances and highly liquid financial investments of a temporary nature that are exposed to no more than a minor risk of changes in value. Non-derivative financial instruments are accounted for at the settlement date in the case of regular way purchases or sales — that is, the date on which the asset is delivered.

The TRATON GROUP uses the central cash management of the Volkswagen Group. Under a cash pooling process, the balances of the TRATON SE accounts included are closed out by Volkswagen AG, usually daily, and thus transformed into receivables from/liabilities to Volkswagen AG. As part of its central financial management, Volkswagen AG manages and guarantees the TRATON GROUP’s liquidity and credit supply with corresponding transactions on the international financial markets. Given their cash-like nature, TRATON GROUP reports the cash pool receivables with Volkswagen AG as cash and cash equivalents. By contrast, deposits of an investment nature are reported as marketable securities (current) or other financial assets (non-current). Analogously, liabilities resulting from the central financial management of Volkswagen AG are reported as financial liabilities.

RECOGNITION OF FINANCIAL INSTRUMENTS

Non-derivative financial assets and liabilities are initially recognized at their cost, which is equivalent to their fair value at that time plus/minus transaction costs, aside from those classified as financial instruments recognized at fair value through profit or loss. The last-mentioned category is recognized at fair value, excluding transaction costs. Trade receivables without a significant financing component are initially measured at their transaction price.

Financial assets and financial liabilities are generally reported at their gross carrying amounts. They are only offset if the TRATON GROUP has a currently enforceable right to set off the recognized amounts and intends to perform the settlement.

CLASSIFICATION OF FINANCIAL INSTRUMENTS

Financial instruments are classified as a financial asset, an equity instrument or a financial liability according to the substance of the contractual arrangement and the definitions in IAS 32.

Financial assets (debt instruments) that meet the following conditions are subsequently measured at amortized cost (AC):

- the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets (debt instruments) that meet the following conditions are subsequently measured at fair value through other comprehensive income (FVOCI):

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

The TRATON GROUP elected to use the option of measuring investments in equity instruments that are not held for trading at FVOCI (without recycling), as presenting fair value gains and losses on such instruments in profit or loss is not indicative of the entity's performance for TRATON Group. By default, all other financial assets are classified as at fair value through profit or loss (FVTPL).

Financial liabilities are classified into the following categories:

- Financial liabilities at fair value through profit or loss;
 - Only financial liabilities held for trading are measured at fair value through profit and loss. In the TRATON GROUP, only derivative financial instruments not included in hedge accounting meet this requirement.
- Financial liabilities measured at amortized cost.
 - By default, all other financial liabilities are measured at amortized cost.

As a general principle, TRATON GROUP does not apply the fair value option for financial assets or financial liabilities.

The amortized cost of a financial asset or liability is the amount:

- at which a financial asset or liability is measured at initial recognition;
- minus any principal repayments;
- plus or minus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount and, for financial assets, adjusted for any loss allowance.

The fair value measurement is determined on the basis of the fair value hierarchy, which is explained in the section "Additional financial instruments disclosures in accordance with IFRS 7" (Fair Value of Financial Assets and Liabilities Measured at Amortized Cost by Level).

IMPAIRMENT OF FINANCIAL INSTRUMENTS AND CONTRACT ASSETS

The TRATON GROUP always recognizes lifetime ECL (expected credit loss) for trade receivables, lease receivables and contract assets. For trade receivables and contract assets lifetime ECL is estimated using a provision matrix as long as no objective evidence of individual credit-impairment is available. The provision matrix is based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as the forecast direction of conditions at the reporting date, including time value of money where appropriate. The provision rates depend on the number of days that a receivable is past due:

- Not impaired and not past due: 1.0% of the receivable;
- Past due up to 30 days: 1.5% of the receivable;
- Past due 31 to 90 days: 2.5% of the receivable;
- Past due more than 91 days: 4.0% of the receivable.

For other financial instruments, the TRATON GROUP recognizes lifetime ECL when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on the financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12 month ECL. The assessment of whether lifetime ECL should be recognized is based on significant increases in the likelihood or risk of a default occurring since initial recognition. If the internal risk management and control systems do not indicate a significant increase in credit risk any earlier, the rebuttable presumption within TRATON GROUP is that a significant increase in credit risk has occurred when payments are more than 30 days overdue.

Financial instruments are assigned to one of three credit risk stages:

- Stage 1: Financial instruments at initial recognition and no changes in credit risk
- Stage 2: Significant changes in credit risk on the basis of the lifetime expectation of the underlying contract
- Stage 3: Credit impaired financial instruments

The assignment to the different stages is evaluated in every reporting period. A financial asset is credit-impaired when one or more events have occurred that have a detrimental impact on the estimated future cash flow. Such events comprise situations of delayed payment over a certain period, the institution of enforcement measures, the threat of insolvency or overindebtedness, the application for or opening of bankruptcy proceedings, or the failure of reorganization measures. The measurement of expected credit losses is a function of the probability of default, loss given default and the exposure at default. If there is no reason to assume a default has occurred any earlier based on the internal risk management and control systems, the general presumption in the TRATON GROUP is that a default has occurred when payments are more than 90 days overdue.

For financial assets, the expected credit loss is estimated as the difference between all contractual cash flows that are due to TRATON GROUP in accordance with the contract and all the cash flows that the Group expects to receive, discounted at the original effective interest rate. For lease receivables, the cash flows and discount rates used for determining the expected credit losses are consistent with the cash flows and discount rates used in measuring the lease receivable in accordance with IAS 17 "Leases".

DERIVATIVES AND HEDGE ACCOUNTING

TRATON GROUP is exposed to various financial risks in its operations. In order to hedge currency rate risks, interest rate risks and commodity price risks, companies use appropriate derivatives such as swaps, forward transactions and options. Derivatives are recognized initially and at the end of each subsequent reporting period at fair value. They are generally recognized at the trade date.

The recognition of gains and losses from fair value measurement depends on the designation of the derivative. Derivatives that do not meet the IFRS 9 hedge accounting criteria are measured at fair value through profit or loss (also referred to below as derivatives not included in hedging relationships). These gains and losses from the remeasurement and settlement are reported in other operating income and expenses, or in the financial result, depending on the risk covered by the derivative.

The criteria for the application of hedge accounting are that the hedging relationship between the hedged item and the hedging instrument is clearly documented and that there is an economic relationship between the hedged item and the hedging instrument, which is not dominated by the effect of credit risk. The hedging instruments are affected by the same risk as the hedged items, foreign exchange rate risk. In each hedging relationship for which hedge accounting is applied, the designated amount of the hedged item equals the volume of the hedging instrument. In the case of hedges of future cash flows (cash flow hedges), the hedging instruments are measured at fair value. Gains or losses from remeasurement of the effective designated portion of the derivative are initially recognized in the reserve for cash flow hedges in other comprehensive income, whereas gains or losses from the non-designated forward element of the derivative and the cross currency basis spread are recognized in the reserve for cost of hedging. The amounts cumulated in other comprehensive income are reclassified to the consolidated income statement once the hedged future cash flow affects profit or loss. The reclassification of both, the reserve for cash flow hedges and the reserve for cost of hedging, affect the line item in which the hedged item is included. The ineffective portion of a cash flow hedge is recognized immediately in profit or loss.

The Group currently does not use fair value hedges.

RECEIVABLES FROM FINANCE LEASES

Where a Group company is the lessor – generally of vehicles – a receivable in the amount of the net investment in the lease is recognized in the case of finance leases, i.e. where substantially all the risks and rewards are transferred to the lessee.

INCOME TAXES

Tax provisions contain obligations resulting from current taxes. Deferred taxes are presented in separate items of the consolidated balance sheet and consolidated income statement. Provisions are recognized for potential tax risks based on the best estimate of the liability. They also contain amounts for interest on taxes owed and any surcharges that are expected to lead to a future liability.

Deferred tax assets and liabilities are recognized for temporary differences between the tax base of assets and liabilities and their carrying amounts in the consolidated financial statements, for tax credits, and for tax loss carry-forwards. Deferred taxes are measured using the tax rates enacted or substantively enacted at the end of the reporting period.

Deferred tax liabilities and assets are recognized in the amount of the expected tax liability or tax benefit, as appropriate, in subsequent fiscal years, based on the expected enacted tax rate at the time of realization. The tax consequences of dividend payments are generally not taken into account until the resolution on appropriation of earnings available for distribution has been adopted.

Deferred tax assets that are unlikely to be realized within a clearly predictable period are reduced by valuation allowances.

Deferred tax assets for tax loss carryforwards are usually measured based on future taxable income over a planning period of five fiscal years.

Deferred tax assets and deferred tax liabilities are offset where taxes are levied by the same taxation authority and relate to the same tax period.

Changes in deferred taxes in the consolidated balance sheet generally result in deferred tax income or expense. If the change in deferred taxes results from items recognized in other comprehensive income, the change in deferred taxes is also recognized in other comprehensive income.

INVENTORIES

Inventories are measured at the lower of cost and net realizable value. Cost comprises directly attributable production costs and proportionate fixed and variable production overheads. Overheads are mainly allocated based on the normal capacity of the production facilities. Borrowing costs are not capitalized. Selling expenses, general and administrative expenses are not included in the cost of inventories. The measurement of same or similar inventories is generally based on the weighted average cost method.

NONCURRENT ASSETS HELD FOR SALE AND DISCONTINUED OPERATIONS

Noncurrent assets held for sale and discontinued operations include both individual noncurrent assets and groups of assets, together with liabilities directly associated with those assets (disposal groups), if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use.

Noncurrent assets classified as held for sale, either individually or as part of a disposal group, are presented in separate line items in the consolidated balance sheet. To the extent that they are in the measurement scope of IFRS 5 they are measured at the lower of their carrying amount and fair value less costs to sell, and are no longer depreciated or amortized. If there is any subsequent increase in fair value less costs to sell, a remeasurement gain is recognized. The remeasurement gain may not exceed the cumulative impairment losses already recognized for that asset.

A discontinued operation is a component of an entity that represents a major line of business of the TRATON GROUP and that is classified as held for sale or has been disposed of. The assets and liabilities of a discontinued operation are classified as held for sale in the consolidated balance sheet until the disposal is completed, and are measured at the lower of their carrying amount and fair value less costs to sell. Gains or losses recognized on measurement to fair value less costs to sell, gains or losses on the disposal, and the post-tax profit or loss of the discontinued operation are presented separately in the consolidated income statement as "Result from discontinued operations, net of tax". Prior-period amounts in the consolidated income statement are adjusted accordingly. Discontinued operations are presented separately in the statement of cash flows. In these cases, too, prior period amounts are adjusted accordingly.

The elimination of intercompany transactions between TRATON and discontinued operations is based on the post-disposal arrangement situation. Where TRATON expects the arrangement to be continued post-disposal, the elimination is made against the discontinued operation. Reversely, if the arrangement will not be continued post-disposal the elimination is made against the continuing operation.

Notes to the consolidated financial statements outside note "Noncurrent assets held for sale and discontinued operations" generally relate to continuing operations, unless explicitly stated or otherwise required by IFRSs.

PENSION PROVISIONS

The actuarial valuation of pension provisions is based on the projected unit credit method stipulated by IAS 19 for defined benefit plans under which the future defined benefit obligation is measured based on the proportionate benefit entitlements

earned by the end of the reporting period and discounted to its present value. The valuation is not only based on pension payments and vested entitlements known at the consolidated balance sheet date, but also reflects future salary and pension trends, as well as experience-based staff turnover rates. Remeasurements of the net defined benefit asset or liability comprise actuarial gains and losses resulting from differences between the actuarial assumptions made and what has actually occurred, or changes in actuarial assumptions, as well as the return on plan assets, excluding amounts included in net interest income or expense. Remeasurements are recognized in other comprehensive income, net of deferred taxes.

SHARE-BASED PAYMENTS

At the year-end 2018 the remuneration system in place within the Power Engineering business was modified to include a performance share plan with a term of three years (share-based payment). At the time the plan is granted the annual target amount under the plan is converted, on the basis of the initial reference price of Volkswagen's preferred shares, into performance shares of Volkswagen AG, which are allocated to the respective participant solely as a calculation figure. At the end of the three-year term of the performance share plan, a cash settlement takes place. The payment corresponds to the number of determined performance shares, multiplied with the closing reference price at the end of the three-year period plus a dividend equivalent for the relevant term. The payment under the performance share plan is limited to 200% of the target amount.

With the sale of the Power Engineering business as of December 31, 2018 (see note "Noncurrent assets held for sale and discontinued operations"), this remuneration system is no longer applied in the TRATON GROUP. The performance share plan had no material impact on the consolidated financial statements of TRATON GROUP.

An obligation arises from a share-based payment arrangement when TRATON and the participant have a shared understanding of the terms and conditions of the arrangement. If that arrangement is subject to an approval process, grant date is the date when that approval is obtained. The obligations arising from the share-based payment are accounted for as cash-settled plans in accordance with IFRS 2. The cash-settled share based payments are measured at fair value until maturity. Fair value is determined using a recognized valuation technique. The compensation cost representing personnel expense is allocated over the vesting period.

OTHER PROVISIONS

In accordance with IAS 37, provisions are recognized where a present obligation exists to third parties because of a past event, where a future outflow of resources is probable and where a reliable estimate of that outflow can be made.

Where the effect of the time value of money is material, the provision is recognized at its present value. Discounting is based on market interest rates. The settlement value also reflects cost increases expected at the balance sheet date.

Provisions are not offset against claims for reimbursement.

CONTINGENCIES AND COMMITMENTS

If the criteria for recognizing a provision are not met, but the outflow of financial resources is not improbable, or the amount cannot be measured reliably, such obligations are disclosed in the Notes to the consolidated financial statements (see the "Contingent liabilities" section). Contingent liabilities are only recognized as a provision if the obligations are more certain, i.e. the outflow of financial resources has become probable and their amount can be reliably estimated.

REVENUE FROM CONTRACTS WITH CUSTOMERS

Revenue is recognized once a performance obligation in a contract with a customer is satisfied. Discounts, customer rebates, and other sales allowances are deducted from the transaction price. If a contract contains multiple performance obligations, the transaction price is allocated to each performance obligation. Variable consideration is only included in the transaction price to the extent that it is highly probable that a reversal of revenue will not occur.

Revenue from goods is recognized at the point in time when control over the product is transferred to the customer, which is normally the date of delivery of the vehicle.

Revenue from service contracts is recognized when the service has been rendered. In the case of long-term contracts for services, revenue is recognized on a straight-line basis over the term of the contract or, if services are not rendered on a straight-line basis, based on the stage of completion using the cost-to-cost method.

Warranties which assure that the sold product complies with agreed upon specifications are accounted for as a provision. Extended warranties which customers can purchase separately are accounted for as separate performance obligations. Revenue from extended warranties is recognized over the term of the warranty.

Any unconditional rights to consideration are presented in Other financial assets with a corresponding contract liability.

TRATON takes the practical expedient to only account for significant financing components for contracts where TRATON expects that the period between transferring a good or service and the customer paying for it is more than one year.

REVENUE FROM LEASES, BUYBACK AGREEMENTS AND FINANCING ARRANGEMENTS

Sales revenue from financing arrangements and finance lease agreements is recognized using the effective interest method over the contract term. If non-interest-bearing or low-interest vehicle financing arrangements are agreed, sales revenue is reduced by the interest benefits granted.

In case of operating leases and short-term rentals of vehicles, revenue is allocated on a straight-line basis over the lease or rental period. Leases and rentals mainly involve new trucks and buses. The asset remains on the consolidated balance sheet as a lease asset.

Income from sale transactions in which a Group company incurs a buyback obligation at a predetermined value is not immediately recognized in full as revenue when control does not transfer to the customer. The difference between the selling price and the present value of the buyback price is recognized as revenue on a straight-line basis over the period until the return of the item sold. Prior to that time, the assets are carried as lease assets on the consolidated balance sheet.

OPERATING INCOME AND EXPENSES

Operating expenses are recognized when the underlying products or services are utilized. Advertising expenses and other sales-related expenses are recognized when incurred.

Cost of sales includes the production costs incurred to generate the sales revenue and the cost of goods purchased for resale. In addition to direct material and labor costs, production cost also includes production-related indirect costs, including depreciation of production facilities. This item also includes the costs of additions to warranty provisions for statutory and contractual guarantee obligations which are recognized when the products are sold. Research and development costs not eligible for capitalization in the period and amortization of development costs are likewise carried under cost of sales. Reflecting the presentation of interest and commission income in sales revenue, the interest and commission expenses attributable to the financial services business are presented in cost of sales.

Government grants for expenses incurred are recognized in other operating income for the period or in the item in which the expenses to be offset are also recognized.

GOVERNMENT GRANTS

Government grants related to assets are deducted from the carrying amount of the asset and are recognized in profit or loss over the life of the depreciable asset as a reduced depreciation expense. If the Group becomes entitled to a grant subsequently, the amount of the grant attributable to prior periods is recognized in profit or loss.

ESTIMATES AND JUDGEMENTS BY MANAGEMENT

Preparation of the consolidated financial statements requires management to make certain estimates and exercise judgement that affect the reported amounts of assets and liabilities, and income and expenses, as well as the related disclosures of the reporting period. Estimates and judgements relate largely to the following matters:

The impairment testing of nonfinancial assets, especially goodwill, brand names, capitalized development costs and special tools and equity-accounted investments, or investments accounted at cost requires assumptions about future market trends as well as about the discount rate to be applied. The expected future market trends lead to detailed planning of the sales of commercial vehicles, the profitability of the products and the developments in the after-sales business. The planning period for the impairment test generally covers five years, in the case of finite-lived assets it may also depend on the lifetime of the item. Estimation of cash flows is generally based on the expected growth trends for the markets concerned which is primarily reflected in planned sales revenue and the gross margin of TRATON's products and services. The estimates for the cash flows following the end of the planning period are generally based on a growth rate of up to 1% p.a. (December 31, 2017: up to 1% p.a., December 31, 2016: up to 1% p.a.).

Estimates of the useful life of finite-lived assets are based on experience and are reviewed regularly. Where estimates are modified, the residual useful life is adjusted and an impairment loss is recognized, if necessary. In addition, the recoverability of the Group's lease assets depends in particular on the residual value of the leased vehicles after expiration of the lease term, because this represents a significant portion of the expected cash flows. The forecast of residual values requires management to make assumptions in particular about vehicle supply and demand in the future, as well as about vehicle price trends. Such assumptions are based either on qualified estimates or on data published by external experts. Qualified estimates are based on external data – if available – that reflects additional information that is available internally, such as historical experience and current sales data.

If there are no observable market inputs, the fair values of assets acquired and liabilities assumed in a business combination are measured using recognized valuation techniques, such as the relief-from-royalty method or the residual method.

The TRATON GROUP has an exposure in the form of contractual payments. In all essential respects, the Group has collateral in the form of the right to repossess the underlying vehicle. In case the market value of the collateral does not cover the exposure to the customer, and the customer has a problem completing its contractual payments, the Group has a risk of loss. Consequently, impairment testing of financial assets requires estimates about the extent and probability of occurrence of future events. As far as possible, estimates are derived from experience taking into account current market data as well as rating categories and scoring information.

Accounting for provisions is also based on estimates of the extent and probability of occurrence of future events, as well as estimates of the discount rate. As far as possible, these are also based on experience or external opinions. The assumptions applied in the measurement of pension provisions are described in the "Provisions for pensions and other post-employment benefits" section. Remeasurements are recognized in other comprehensive income and do not affect profit or loss reported in the consolidated income statement. Any change in the estimates of the amount of other provisions is always recognized in profit or loss. The provisions are regularly adjusted to reflect new information obtained. The use of expected values means that additional amounts must frequently be recognized for provisions, or that unused provisions are reversed. Reversals of provisions and expenses relating to the recognition of provisions are allocated directly to the functions. Warranty claims from sales transactions are calculated based on estimated future costs and the policy on ex gratia arrangements. This requires assumptions to be made about the nature and extent of future warranty and ex gratia claims. The measurement of restructuring provisions is based on estimates and assumptions regarding the amount of severance payments, the effects of onerous contracts, the timeline for the implementation of measures, and consequently, the timing of the expected payments. The measurement assumptions are regularly reviewed as the restructuring program progresses. At the same time, litigation and other legal proceedings raise complex legal issues and entail numerous difficulties and uncertainties. A provision is recognized for these if it is probable that an obligation has arisen in connection with these proceedings that is likely to lead to a future outflow of resources and its amount can be estimated reliably.

Because the Group operates in many countries, it is subject to a variety of tax laws in a large number of jurisdictions. The expected current income taxes and the deferred tax assets and liabilities must be determined for each tax entity. Among other things, this requires assumptions about the interpretation of complex tax regulations and the ability to generate sufficient taxable income, depending on the tax type and tax jurisdiction involved. Any variance between these assumptions and the actual outcome of such tax uncertainties may affect tax expense and deferred taxes. Uncertain recognized income tax items are based on a best estimate of the probable tax payment. Measuring deferred tax assets requires assumptions regarding future taxable income and the timing of the realization of deferred tax assets.

Estimates and judgement are based on underlying assumptions that reflect the current state of available knowledge. All estimates and assumptions represent the best of management's knowledge and belief in order to convey a true and fair view of the Group's net assets, financial position, and results of operations. Specifically, the expected future development of business was based on the circumstances known at the date of preparation of these consolidated financial statements and a realistic assessment of the future development of the general economic environment, the relevant markets and the legal environment. Our estimates and assumptions remain subject to a high degree of uncertainty because future business developments are subject to uncertainties that in part cannot be influenced by the Group.

Developments in this environment that differ from the assumptions and that cannot be influenced by management could result in amounts that differ significantly from the original estimates. If actual developments differ from the expected developments, the underlying assumptions and the carrying amounts of the assets and liabilities affected are adjusted.

Global gross domestic product (GDP) rose by 3.7% in 2018 (2017: 3.2%; 2016: 2.5%). In the medium and heavy trucks markets relevant for TRATON we expect a slight increase in new registrations of trucks in 2019. For the years 2020 to 2023 we expect a robust increase in demand. We expect the Western European market, including the German market, to contract slightly. We anticipate a moderate increase demand than in the previous year in Central and Eastern Europe. In Russia, we expect a strong recovery in demand in 2019. Demand in South America is expected to be noticeably higher year-on-year.

Demand in the bus markets relevant to TRATON GROUP should be slightly higher in 2019 than in 2018. We anticipate a moderate increase in demand compared to the previous year in Western Europe. In Central and Eastern Europe, we expect demand to be slightly down on the 2018 figure in 2019. New registrations in South America should moderately increase year-on-year.

4. Segment reporting

Segments are identified on the basis of the TRATON GROUP's internal management and reporting. Each of its operating segments is managed by its own board of management. In order to make decisions about the allocation of resources and the assessment of performance, the results of these segments are regularly reviewed by the Company's Executive Board in its role as chief operating decision-maker ("CODM"). Segment reporting comprises the following operating segments: MAN Truck & Bus, Volkswagen Caminhões & Ônibus, Scania Vehicles and Services as well as Financial Services. For external reporting purposes, the reportable segments are as follows:

Industrial Business: TRATON's business activities focus on Commercial Vehicles, comprising the operating segments MAN Truck & Bus, Volkswagen Caminhões & Ônibus and Scania Vehicles & Services, which encompass the following products: trucks, buses and engines, including the services associated with these products. Between the three segments there is a collaboration within key areas such as procurement, research and development. The segments are similar in the nature of the products and services offered and there is no systematic difference between the customers of the different segments. All brands operate in the market of commercial vehicles, which is a very cyclic market strongly dependent on the overall economic situation. As such, the operating performance of the three operating segments is on a different level but the segments are exposed to a similar operating cycle regarding their long-term financial performance. This is assessed based on the development of Return on Sales (RoS) over time.

Consequently, in line with the accounting policy as set out IFRS 8 to aggregate segments with similar characteristics, TRATON chooses for external reporting purposes to aggregate the three operating segments into a single reportable segment referred to as "Industrial Business". The Industrial Business segment also comprises the holding functions of the Group and equity investments held by the holding companies, namely Sinotruk and since 2017 Navistar.

Financial Services provides financing solutions to customers, such as loan financing, lease contracts and insurance solutions. The reportable segment Financial Services only consists of Scania Financial Services. For MAN Truck & Bus and Volkswagen Caminhões & Ônibus customers, Volkswagen Financial Services AG and its subsidiaries provide similar financing solutions outside the TRATON GROUP.

The segment information presented represents continuing operations. The segment disclosures for the current and the comparative periods therefore do not include the corresponding information for discontinued operations, as presented in the section "Noncurrent assets held for sale and discontinued operations".

Operating profit/loss is the earnings measure for assessing a segment's results of operations. Operating profit/loss is calculated as profit/loss before tax and before the financial result. Purchase price allocation for companies acquired is allocated directly to the corresponding segments.

Segment financial information is presented in accordance with the disclosure and measurement policies applied to the preparation of the consolidated financial statements. Sales revenues between the segments are transacted on an arm's length basis. Depreciation, amortization, and impairment losses relate to the intangible assets, property, plant, and equipment, other equity investments, and assets leased out allocated to the individual divisions. Investments in intangible assets, property, plant and equipment, and investment property are reported net of investments under finance leases.

In the segment reporting, the share of the profits or losses of joint ventures are contained in the share of profits and losses of equity-accounted investments in the corresponding segments.

The other segments consist of activities carried out by VGSG, an entity sold in January 2019 (see note “Noncurrent assets held for sale and discontinued operations”), which relate to the sale of used passenger vehicles and by definition do not constitute a reportable segment. The reconciliation contains the consolidation adjustments between the reporting segments.

REPORTING SEGMENTS 2018

€ million	INDUSTRIAL BUSINESS	FINANCIAL SERVICES	OTHER SEGMENTS	RECONCILIATION	GROUP
Segment sales revenue	24,963	760	585	-381	25,927
Intersegment sales revenue	380	1	0	-381	-
Group sales revenue	24,583	758	585	0	25,927
Depreciation and amortization	1,810	4	1	-0	1,815
Impairment losses	95	0	2	-	97
Segment profit or loss (operating profit)	1,346	138	34	-6	1,513
Financial result	98	10	-24	-32	53
Thereof: share of profits and losses of equity-accounted investments	209	-	-	-	209
Capital expenditures	1,404	4	0	-13	1,395
Equity-accounted investments	1,223	-	-	-	1,223

REPORTING SEGMENTS 2017

€ million	INDUSTRIAL BUSINESS	FINANCIAL SERVICES	OTHER SEGMENTS	RECONCILIATION	GROUP
Segment sales revenue	23,403	721	590	-346	24,366
Intersegment sales revenue	346	1	0	-347	-
Group sales revenue	23,057	719	590	1	24,366
Depreciation and amortization	1,965	3	1	-27	1,941
Impairment losses	2	-	-	-	2
Segment profit or loss (operating profit)	1,368	111	33	0	1,512
Financial result	-196	1	-22	85	-132
Thereof: share of profits and losses of equity-accounted investments	74	-	-	-	74
Capital expenditures	1,523	3	1	11	1,537
Equity-accounted investments ¹	819	-	-	-	819

¹ Not including equity-investments held by discontinued operations amounting to €17 million.

REPORTING SEGMENTS 2016

€ million	INDUSTRIAL BUSINESS	FINANCIAL SERVICES	OTHER SEGMENTS	RECONCILIATION	GROUP
Segment sales revenue	21,023	709	563	-380	21,915
Intersegment sales revenue	379	2	0	-380	-
Group sales revenue	20,645	708	563	-0	21,915
Depreciation and amortization	1,867	2	1	-11	1,860
Impairment losses	8	-	-	-	8
Segment profit or loss (operating profit)	596	105	27	-0	727
Financial result	-156	1	-16	-63	-234
Thereof: share of profits and losses of equity-accounted investments	17	-	-	-	17
Capital expenditures	1,465	5	1	-3	1,467
Equity-accounted investments	491	-	-	-	491

The reconciliation of total sales revenue of the segments to the TRATON GROUP sales revenue is presented in the following:

€ million	2018	2017	2016
Reportable segment sales revenue (sales revenue of the segments)	25,722	24,123	21,733
Other segments	585	590	563
Reconciliation	-381	-346	-380
Sales revenue (TRATON GROUP)	25,927	24,366	21,915

The reconciliation of total profit/loss of the segments to the TRATON GROUP profit/loss before tax and discontinued operations is presented in the following:

€ million	2018	2017	2016
Reportable segment profit or loss (operating profit)	1,485	1,479	700
Other segments	34	33	27
Reconciliation	-6	0	-0
Operating profit (TRATON GROUP)	1,513	1,512	727
Financial result	53	-132	-234
Profit before tax (TRATON GROUP)	1,566	1,379	493

SEGMENT INFORMATION BY REGION

€ million	Germany	EU-28+2 (excluding Germany)	Brazil	South America (excluding Brazil)	Rest of World ²	Total
2018						
Noncurrent assets (excl. financial instruments, equity investments, and deferred taxes) at December 31	4,972	11,881	1,862	100	563	19,377
Sales revenue ¹	4,773	12,422	1,977	782	5,972	25,927
2017						
Noncurrent assets (excl. financial instruments, equity investments, and deferred taxes) at December 31	4,160	13,535	1,513	1	637	19,846
Sales revenue ¹	4,713	11,309	1,377	915	6,052	24,366
2016						
Noncurrent assets (excl. financial instruments, equity investments, and deferred taxes) at December 31	3,803	13,466	1,615	2	623	19,509
Sales revenue ¹	4,439	10,751	979	799	4,946	21,915

¹ Allocation of sales revenue to the regions follows the destination principle.

² Including sales revenue from hedging transactions.

5. Noncurrent assets held for sale and discontinued operations

DISPOSAL OF POWER ENGINEERING BUSINESS

On October 25, 2018, the Group announced its intention to sell the Power Engineering (“PE”) business to a Volkswagen AG subsidiary outside the TRATON GROUP for cash consideration determined based on the net assets measured at book values of the Power Engineering business. The Power Engineering business consists of the two former operating segments MAN Energy Solutions and Renk and the HABAMO Verwaltung GmbH & Co. Objekt Sterkrade KG.

MAN Energy Solutions is a global leader in large marine diesel engines and stationary engines and is also one of the leading suppliers of turbomachinery on the global market. Renk is a globally recognized manufacturer of high-quality special gear units, propulsion components, and testing systems. The transaction was completed on December 31, 2018. On this date control over the Power Engineering business passed to the acquirer.

The proceeds of sale equal the carrying amount of the related net assets and, accordingly, no impairment losses were recognized on the reclassification of these operations as held for sale.

ANALYSIS OF PROFIT FOR THE YEAR FROM DISCONTINUED OPERATIONS

The combined results of the operations classified as discontinued in the current year that are included in the profit for the year are presented separately in the consolidated income statement and are set out below (including comparative figures). In the consolidated balance sheet the assets and liabilities from discontinued operations are not included, as the classification as held for sale occurred in October 2018 and the sale of the Power Engineering business took place on December 31, 2018. The consolidated balance sheets as of December 31, 2017, 2016 and January 1, 2016 include the assets and liabilities of the Power Engineering business.

Profit for the year from discontinued operations:

€ million	2018	2017	2016
Sales revenue	3,588	3,248	3,575
Other gains	173	117	74
Expenses	-3,519	-3,158	-3,621
Profit before tax of the discontinued operation	242	207	27
Attributable income tax expense	-41	-58	-5
Gain on sale after income tax	48	-	-
Profit for the year from discontinued operations	250	149	22

Taking into account non-controlling interests, reclassifications of previously unrealized gains and losses in equity of €36 million and income tax expenses on the gain of €89 million, the sale of the Power Engineering business for a consideration of €1,980 million resulted in a gain on the sale of €48 million. The purchase price was not settled in 2018.

The carrying amounts of the assets and liabilities of the Power Engineering business at the date of the sale were:

€ million	Dec. 31, 2018
Intangible assets	392
Property, plant and equipment	756
Cash and cash equivalents	862
Inventories	1,402
Trade receivables	935
Other assets	447
Total assets	4,794
Financial liabilities	555
Provisions for pensions	130
Trade payables	671
Other provisions	460
Other liabilities	997
Total liabilities	2,814
Net assets	1,980

With the sale of Power Engineering cash and cash equivalents of €862 million were disposed of. This includes a cash-pooling receivable of €759 million against TRATON without effect on the cash flow of TRATON in 2018. Reversely, cash-pooling receivables of €525 million arose in TRATON as a result from the deconsolidation, with an impact on the cash flow from investing activities of TRATON.

DISPOSAL OF VOLKSWAGEN GEBRAUCHTFAHRZEUGHANDELS UND SERVICE GMBH (VGSG)

On December 6, 2018 TRATON AG concluded an agreement with a Volkswagen AG subsidiary outside of the TRATON GROUP to sell its subsidiary, VGSG, with effect from January 1, 2019. The Volkswagen Gebrauchtfahrzeughandels und Service GmbH was expected to be sold within 12 months and therefore the associated assets and liabilities were classified as held for sale and presented separately in the consolidated balance sheet as of December 31, 2018. Reclassification of VGSG as held for sale resulted in the recognition of impairment losses of €6 million.

The following assets and liabilities were reclassified as held for sale in relation to VGSG as at December 31, 2018:

€ million	Dec. 31, 2018
Inventories	149
Other assets	8
Total assets	157
Trade payables	86
Other liabilities	37
Total liabilities¹	123
Net assets	34

¹ The liabilities shown exclude intercompany liabilities of €34 million.

OTHER DISPOSAL GROUPS

In the third quarter of 2018 the restructuring of MAN Truck & Bus's activities in India was initiated and executed in the fourth quarter 2018. Impairment losses of €64 million were recognized in relation to the sale of assets, of which €30 million relate to property, plant and equipment and intangible assets and are included in the cost of sales. In total, cash consideration received amounted to €11 million and cash and cash equivalents of €27 million were disposed of.

Consolidated income statement disclosures

6. Sales revenue

STRUCTURE OF GROUP SALES REVENUE

€ million	Industrial Business	Financial Services	Other Segments	Reconciliation	2018
Vehicles	16,216	-	-	-1	16,215
Genuine parts	3,316	-	-	-1	3,315
Used vehicles	1,387	-	557	-0	1,944
Engines, powertrains and parts deliveries	676	-	-	-0	676
Workshop services	1,414	-	0	-0	1,414
Leasing business ¹	1,651	411	-	-374	1,688
Interest and similar income ¹	6	349	-	-1	353
Other sales revenue	296	-	28	-3	321
	24,963	760	585	-381	25,927

€ million	Industrial Business	Financial Services	Other Segments	Reconciliation	2017
Vehicles	14,357	-	-	-1	14,356
Genuine parts	3,190	-	-	-0	3,189
Used vehicles	1,354	-	564	-0	1,918
Engines, powertrains and parts deliveries	640	-	-	-0	640
Workshop services	1,318	-	0	-	1,318
Leasing business ¹	2,230	401	-	-341	2,289
Interest and similar income ¹	4	320	-	-1	322
Other sales revenue	310	-	26	-3	333
	23,403	721	590	-347	24,366

€ million	Industrial Business	Financial Services	Other Segments	Reconciliation	2016
Vehicles	13,039	-	-	-5	13,035
Genuine parts	2,995	-	-	-0	2,994
Used vehicles	1,243	-	543	-0	1,786
Engines, powertrains and parts deliveries	561	-	-	-0	561
Workshop services	1,227	-	0	-	1,227
Leasing business ¹	1,675	451	-	-374	1,752
Interest and similar income ¹	3	258	-	-1	260
Other sales revenue	280	-	20	-	300
	21,023	709	563	-380	21,915

¹ Sales revenue not in the scope of IFRS 15.

Other sales revenue comprises revenue from licenses, among other things. Sales revenue from used vehicles included in “Others” relates to the VGSG which was disposed of after the balance sheet date (see note “Noncurrent assets held for sale and discontinued operations”).

Sales revenue recognized in the reporting period that was included in the contract liability balance (note “Other liabilities”) at the beginning of the period totalled €658 million (€542 million in 2017, €424 million in 2016).

Sales revenue of €26 million recognized in the reporting period (€18 million in 2017, €1 million in 2016) stems from performance obligations satisfied in previous periods. This mainly relates to the reversal of provisions for sales allowances.

REVENUE FROM CONTRACTS WITH CUSTOMERS

a) INFORMATION ABOUT THE GROUP’S PERFORMANCE OBLIGATIONS

The performance obligations of the Group primarily comprise the sale of trucks, heavy-duty special-purpose vehicles, buses and coaches, related genuine parts, as well as the provision of repair and maintenance services. Besides regular legal warranties, the Group also grants service-type warranties.

Performance obligations relating to the transfer of goods are satisfied when the customer obtains control over these goods. This is normally the case when the goods have been delivered to the customer and the customer has approved the vehicle.

Common business practice is for payment terms to be 30 days. In some markets, payments terms up to 140 days are granted. Contracts do not contain significant financing components. Customers can decide to finance a vehicle using financing solutions offered by TRATON’s Financial Services or with a Volkswagen Group affiliate (e.g. Volkswagen Financial Services). When a party outside the TRATON GROUP is used, the Group receives the payment from that party shortly after the customer obtains the vehicle.

Performance obligations relating to service contracts and service-type warranties are satisfied over the contract term. In case of prepayments received, the transaction price allocated to these services is recognized as a contract liability at the time of the initial sales transaction and is released over the period of service. Where the payment of service fees parallels the services rendered, sales revenue recognized corresponds to the fees paid.

In the case of contracts, in which service elements have an insignificant value as compared to the revenue from the sale of the vehicle, the residual approach is used for the transaction price allocation. This does not result in material differences compared to revenue recognized based on relative stand-alone selling prices. In other cases, the transaction price is allocated based on the relative stand-alone selling prices.

B) TRANSACTION PRICE ALLOCATED TO THE REMAINING PERFORMANCE OBLIGATIONS

The aggregate amount of the transaction price allocated to the performance obligations that are unsatisfied or partially unsatisfied at the end of the reporting period and the expected timing of revenue recognition were as follows:

€ million	2018	2017	2016
Expected timing of revenue recognition			
Within a year	7,482	6,524	4,786
1-5 years	1,640	1,450	1,318
In more than five years	6	5	5
	9,128	7,980	6,109

The transaction price allocated to remaining performance obligations for which revenue recognition is expected within a year primarily relates to the delivery of vehicles. An expected revenue recognition in more than one year mainly stems from long-term service and extended warranty contracts.

REVENUE FROM FINANCING ARRANGEMENTS

TRATON's Financial Services business offers various forms of financing solutions ordinarily with maturities between three until five years, with the vehicle as underlying collateral. Market conditions as well as civil law and tax rules in each country often determine what financing solution is offered. Financing consists mainly of financial leases, in which the right of ownership of the vehicle remains with TRATON during the lease term, but material risks and rewards have been transferred to the lessee. If hire purchase contracts are offered, the right of ownership is transferred to the customer on the date of sale, but Financial Services receives collateral in the form of a lien on the vehicle. If Financial Services offers a lease when delivering vehicles for which substantial risks remain with TRATON, primarily attributable to guaranteed residual values, the contract is recognized as an operating lease.

7. Cost of sales

Cost of sales includes nonstaff overheads and personnel costs, as well as depreciation and amortization attributable to the production function. It also includes expenses of €489 million for the year ended December 31, 2018 (December 31, 2017: €469 million, December 31, 2016: €482 million) attributable to the Financial Services business.

8. Administrative expenses

The administrative expenses mainly include nonstaff overheads and personnel costs, as well as depreciation and amortization applicable to the administrative functions. The increase in 2018 relates, amongst other, to costs in relation with the preparation of capital market readiness amounting to €68 million.

9. Other operating income

€ million	2018	2017	2016
Income from reversal of provisions and accruals	16	66	75
Income from foreign exchange gains	418	312	291
Income from cost allocations	56	68	39
Income from lease and other rental activities	19	21	23
Gains from fair value changes of derivatives not included in hedge accounting	66	20	7
Gains on asset disposals	30	22	19
Miscellaneous other operating income	186	95	51
	792	606	506

Foreign exchange gains mainly comprise gains from changes in exchange rates between the dates of recognition and payment of receivables and liabilities denominated in foreign currencies, as well as exchange rate gains resulting from measurement at the closing rate for such items. Foreign exchange losses from these items are included in other operating expenses.

Government grants related to income amounted to €7 million in 2018, €16 million in 2017 and €14 million in 2016 and were generally allocated to the functions.

Miscellaneous other operating income in 2018 includes income from reversal of liabilities related to social security contributions of Volkswagen Caminhões & Ônibus amounting to €144 million.

10. Other operating expenses

€ million	2018	2017	2016
Foreign exchange losses	381	327	293
Expenses for termination agreements	2	0	21
Losses from fair value changes of derivatives not included in hedge accounting	99	22	19
Losses on disposal of noncurrent assets	9	10	7
Expenses for antitrust proceedings	-	-	403
Miscellaneous other operating expenses	322	177	161
	814	537	904

The expenses for antitrust proceedings relate to provisions of Scania relating to the proceedings the European Commission opened against European truck manufacturers including MAN and Scania.

Miscellaneous other operating expenses in 2018 include expenses from the impairment of transaction tax receivables at Volkswagen Caminhões & Ônibus of €88 million and expenses from restructuring measures relating to MAN Truck & Bus India of €71 million (see also note “Noncurrent assets held for sale and discontinued operations”).

Miscellaneous other operating expenses contains in 2016 restructuring expenses of Volkswagen Caminhões & Ônibus of €58 million.

11. Interest result

€ million	2018	2017	2016
Interest income	83	91	79
Other interest and similar income	83	91	79
Income from valuation of interest derivatives	-	0	-
Interest expenses	-245	-263	-298
Other interest and similar expenses	-186	-169	-171
Interest cost included in lease payments	-0	-0	-0
Unwinding of discount and effect of change in discount rate on liabilities and other provisions	-25	-58	-92
Net interest on the net liability for pensions and other post-employment benefits	-34	-36	-35
Interest result	-162	-173	-219

The finance costs primarily contain interest expenses for financial liabilities and the interest cost from unwinding discounts on put options and compensation rights granted to noncontrolling interest shareholders.

Capitalised borrowing costs amounted to €1 million in the reporting period (€8 million in 2017, €2 million in 2016) and related mainly to capitalized development costs.

12. Other financial result

€ million	2018	2017	2016
Income from profit and loss transfer agreements	2	-0	-
Cost of loss absorption	-0	-0	-
Other income from equity investments	190	2	2
Other expenses from equity investments	-24	-0	-4
Realized income and expense of loan receivables and payables in foreign currency	79	6	118
Gains and losses from remeasurement of financial instruments	-213	-9	71
Gains and losses from fair value changes of derivatives not included in hedge accounting	-27	-32	-220
	6	-34	-32

Gains and losses from remeasurement of financial instruments contains expenses from valuation of put options and compensation rights granted to noncontrolling interest shareholders of €142 million in 2018, €13 million in 2017 and €0 million in 2016. Other income from equity investments in 2018 stems from the reversal of impairment losses related to investment in Sinotruk (see note "Equity-accounted Investments and Other Equity Investments").

13. Income tax income/expense

COMPONENTS OF TAX INCOME AND EXPENSE

€ million	2018	2017	2016
Current tax expense (+)/income (-), Germany	-3	-18	81
Current tax expense (+)/income (-), other countries	452	396	343
Current tax expense (+)/income (-)	449	377	424
of which prior-period expense (+)/income (-)	-37	18	37
Deferred tax expense (+)/income (-), Germany	-37	66	-33
Deferred tax expense (+)/income (-), other countries	3	46	-93
Deferred tax expense (+)/income (-)	-34	111	-127
Income taxes	415	489	297

The statutory corporation tax rate in Germany for the 2018 assessment period was 15%. Including trade tax and the solidarity surcharge, this resulted in an aggregate tax rate of 29.9% (December 31, 2017: 29.9%, December 31, 2016: 29.9%).

A tax rate of 29.8% for December 31, 2018 (December 31, 2017: 29.9%, December 31, 2016: 29.9%) was used to measure deferred taxes in the German consolidated tax group with Volkswagen AG. The decrease results from the termination of the domination and profit and loss transfer agreement with MAN SE with effect from January 1, 2019.

The local income tax rates applied for companies outside Germany vary between 0% and 45%. In the case of split tax rates, the tax rate applicable to undistributed profits is applied.

The realization of tax benefits from tax loss carryforwards from previous years resulted in a reduction in current income taxes to €6 million as of December 31, 2018 (December 31, 2017: €10 million, December 31, 2016: €9 million).

Previously unrecognized tax losses and tax credits used to reduce deferred tax expense amounted to €37 million as of December 31, 2018 (December 31, 2017: €7 million, December 31, 2016: €4 million).

TAX LOSS CARRYFORWARDS

€ million	Dec. 2018	Dec. 2017	Dec. 2016	Jan. 2016
Unused tax loss carryforwards	1,804	1,311	1,208	5,573
Of those can be used within the next 10 years	141	184	160	144
Of those can be used within a period of 15 or 20 years	8	0	0	-
Of those can be used indefinitely	1,654	1,127	1,047	5,430
Unusable tax loss carryforwards	1,616	1,171	820	5,202
Of those will expire within 5 years	24	5	8	44
Of those will expire within 6 to 20 years	85	3	20	21
Of those will not expire	1,507	1,162	793	5,137

WRITE DOWN OF DEFERRED TAX ASSETS

€ million	Dec. 2018	Dec. 2017	Dec. 2016
Deferred tax expenses resulting from write downs	77	60	1
Deferred tax income resulting from reversal of write downs	3	1	21

Tax credits granted by various countries amounted to €10 million as of December 31, 2018 (December 31, 2017: €18 million, December 31, 2016: €29 million, January 1, 2016: €25 million).

NO DEFERRED TAX ASSETS RECOGNIZED

€ million	Dec. 2018	Dec. 2017	Dec. 2016	Jan. 2016
For deductible temporary differences	-	-	-	-
For tax credits that would expire in the next 20 years	-	-	-	13
For tax credits that will not expire	-	-	-	-

Deferred taxes are not recognized on retained profits of €24.7 billion (December 31, 2017: €12.1 billion, December 31, 2016: €11.5 billion, January 1, 2016: €11.2 billion) of foreign subsidiaries, as it is largely intended to reinvest these profits in the operations of the relevant companies. Generally, the distribution would lead to an additional income tax expense. It is not practicable to estimate the aggregate amount of the underlying taxable temporary differences for these undistributed foreign earnings.

Deferred tax expense/income (+/-) resulting from changes in tax rates amounted to €-20 million as of December 31, 2018 (December 31, 2017: €-4 million, December 31, 2016: €4 million) at Group level.

Deferred taxes in respect of temporary differences and tax loss carryforwards of €18 million as of December 31, 2018 (December 31, 2017: €38 million, December 31, 2016: €174 million, January 1, 2016: €95 million) were recognized without being offset by deferred tax liabilities in the same amount. The deferred tax assets of companies within the German tax group were recognized due to positive results in the past and are included in this analysis. The companies affected are expecting positive tax income in the future, following losses in the reporting period or the previous year.

€10 million as of December 31, 2018 (December 31, 2017: €-13 million, December 31, 2016: €86 million) of the deferred taxes recognized in the consolidated balance sheet was credited to equity and relates to other comprehensive income. Changes in deferred taxes classified by balance sheet item are presented in the consolidated statement of comprehensive income.

DEFERRED TAXES CLASSIFIED BY BALANCE SHEET ITEM

The following recognized deferred tax assets and liabilities were attributable to recognition and measurement differences in the individual balance sheet items and to tax loss carryforwards:

DEFERRED TAX ASSETS

€ million	2018	2017	Dec. 2016	Jan. 2016
Intangible assets	4	0	1	4
Property, plant and equipment, and lease assets	25	88	84	71
Noncurrent financial assets	1	2	1	1
Inventories	24	158	151	114
Receivables and other assets (including Financial Services Division)	57	213	159	125
Other current assets	0	0	0	0
Pensions and other post-employment benefits	365	426	411	346
Liabilities and other provisions	1,776	1,483	1,551	1,300
Valuation allowances on deferred tax assets from temporary differences	-0	-	-1	-10
Temporary differences, net of valuation allowances	2,253	2,371	2,358	1,950
Tax loss carryforwards, net of valuation allowances	55	43	124	117
Tax credits, net of valuation allowances	10	18	14	12
Value before consolidation and offset	2,318	2,432	2,495	2,079
of which noncurrent	1,625	1,753	1,884	1,612
Offset	-1,789	-1,953	-2,051	-1,759
Consolidation	410	228	195	176
Amount recognized	939	707	639	496

DEFERRED TAX LIABILITIES

€ million	2018	2017	Dec. 2016	Jan. 2016
Intangible assets	817	743	753	702
Property, plant and equipment, and lease assets	1,428	1,268	1,192	1,122
Noncurrent financial assets	25	28	24	22
Inventories	20	21	32	29
Receivables and other assets (including Financial Services Division)	129	389	346	334
Other current assets	0	0	2	0
Pensions and other post-employment benefits	0	1	1	1
Liabilities and other provisions	149	85	70	44
Temporary differences	2,569	2,535	2,419	2,254
Value before consolidation and offset	2,569	2,535	2,419	2,254
of which noncurrent	2,392	2,416	2,297	2,149
Offset	-1,789	-1,953	-2,051	-1,759
Consolidation	45	31	21	26
Amount recognized	824	612	389	520

In accordance with IAS 12, deferred tax assets and liabilities are offset if, and only if, they relate to income taxes levied by the same taxation authority and relate to the same tax period.

RECONCILIATION OF EXPECTED TO EFFECTIVE INCOME TAX

€ million	2018	2017	2016
Earnings before tax	1,566	1,379	493
Expected income tax income (-) / expense (+) (tax rate 29.9%; previous years: 29.9%)	468	412	147
Reconciliation:			
Effect of different tax rates outside Germany	-99	-103	-61
Proportion of taxation relating to:			
tax-exempt income	-106	-38	-24
expenses not deductible for tax purposes	151	63	149
effects of loss carryforwards and tax credits	37	140	51
Tax credits	-5	-10	-5
Prior-period tax expense/income	-37	18	37
Effect of tax rate changes	-20	-4	4
Nondeductible withholding tax	9	0	0
Other taxation changes	15	10	-1
Effective income tax expense (+)/income (-)	415	489	297
Effective tax rate in %	26%	35%	60%

14. Earnings per share

€ million	2018	2017	2016
Earnings after tax attributable to TRATON SE shareholders	1,390	1,029	208
of which income/loss from discontinued operations, net of tax*	239	139	11
Earnings after tax from continuing operations attributable to TRATON SE shareholders	1,151	891	197
Number of shares outstanding (weighted average)	10,000,200	10,000,200	10,000,200
Earnings per share from continuing operations in €	115.1	89.0	19.6
Earnings per share from discontinued operations in €*	23.9	13.9	1.1
Total	139.0	102.9	20.8

* net of noncontrolling interests attributable to discontinued operations

Earnings per share are calculated by dividing consolidated earnings after tax from continuing operations attributable to TRATON SE shareholders by the average number of shares outstanding in the year. Since TRATON's change of legal form from a limited liability company (*Gesellschaft mit beschränkter Haftung, GmbH*) to a public company (*Aktiengesellschaft*) took effect on June 26, 2018 (the change in legal form to a SE took effect on January 17, 2019), the calculation of the number of shares was based on the nominal amount of subscribed capital of EUR 10,000,200.

The computation of diluted earnings per share is identical to that of basic earnings per share because TRATON SE has not issued any financial instruments that could result in dilutive effects.

Consolidated balance sheet disclosures

15. Intangible assets

CHANGES IN INTANGIBLE ASSETS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2018

€ million	Brand names	Goodwill	Capitalized development costs	Other intangible assets	Total
Cost					
Balance at Jan. 1, 2018	1,049	3,675	4,354	1,274	10,352
Foreign exchange differences	-47	-152	-117	-76	-393
Changes in consolidated Group	-	-0	0	-1	-1
Additions	-	-	483	29	511
Transfers	-	-	-	6	6
Disposals	-	-	-44	-42	-86
Reclassified as assets held for sale ¹	-	-116	-368	-101	-585
Balance at Dec. 31, 2018	1,002	3,406	4,307	1,089	9,804
Amortization and impairment					
Balance at Jan. 1, 2018	59	78	2,234	962	3,333
Foreign exchange differences	-6	1	-61	-51	-118
Changes in consolidated Group	-	-0	-0	-1	-2
Additions to cumulative amortization	-	-	186	56	242
Additions to cumulative impairment losses	-	-	-	10	10
Transfers	-	-	-	0	0
Disposals	-	-	-18	-42	-60
Reclassified as assets held for sale ¹	-	-10	-105	-84	-198
Balance at Dec. 31, 2018	53	68	2,237	849	3,207
Carrying amount at Dec. 31, 2018	949	3,338	2,070	239	6,597

1 Mainly relates to the reclassification of the Power Engineering business as held for sale in October 2018. The Power Engineering business was subsequently sold in December 2018. A small proportion relates to the reclassification as held for sale of VGSG in 2018. VGSG was sold in January 2019. See also note "Noncurrent assets held for sale and discontinued operations".

CHANGES IN INTANGIBLE ASSETS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2017

€ million	Brand names	Goodwill	Capitalized development costs	Other intangible assets	Total
Cost					
Balance at Jan. 1, 2017	1,085	3,804	3,985	1,338	10,212
Foreign exchange differences	-36	-149	-96	-94	-375
Changes in consolidated Group	-	20	-	1	21
Additions	-	-	465	38	503
Transfers	-	-	-	6	6
Disposals	-	-	-0	-15	-16
Balance at Dec. 31, 2017	1,049	3,675	4,354	1,274	10,352
Amortization and impairment					
Balance at Jan. 1, 2017	68	78	2,034	977	3,157
Foreign exchange differences	-9	-0	-38	-61	-109
Changes in consolidated Group	-	-	-	-0	-0
Additions to cumulative amortization	-	-	239	60	300
Transfers	-	-	-	0	0
Disposals	-	-	-0	-14	-14
Balance at Dec. 31, 2017	59	78	2,234	962	3,333
Carrying amount at Dec. 31, 2017	990	3,597	2,120	312	7,019

CHANGES IN INTANGIBLE ASSETS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2016

€ million	Brand names	Goodwill	Capitalized development costs	Other intangible assets	Total
Cost					
Balance at Jan. 1, 2016	1,113	3,826	3,558	1,237	9,734
Foreign exchange differences	-28	-22	-24	68	-5
Changes in consolidated Group	-	0	-	4	4
Additions	-	0	453	40	493
Transfers	-	-	0	7	7
Disposals	-	-0	-2	-19	-21
Balance at Dec. 31, 2016	1,085	3,804	3,985	1,338	10,212
Amortization and impairment					
Balance at Jan. 1, 2016	54	78	1,820	894	2,846
Foreign exchange differences	14	-0	-37	40	16
Changes in consolidated Group	-	-0	-	4	4
Additions to cumulative amortization	-	-	249	58	308
Additions to cumulative impairment losses	-	0	2	1	3
Transfers	-	-	0	-1	-1
Disposals	-	-0	-0	-19	-19
Balance at Dec. 31, 2016	68	78	2,034	977	3,157
Carrying amount at Dec. 31, 2016	1,017	3,726	1,952	360	7,055

Other intangible assets comprise in particular licenses, software, similar rights and customer relationships. Purchased licenses, software, similar rights and assets, and capitalized development costs are finite-lived assets. Amortization and impairment losses are included in the functional expenses, in particular cost of sales and selling expenses.

In the third quarter of 2018 the restructuring of MAN Truck & Bus India was initiated and executed in the fourth quarter of 2018. In connection with the sale of assets allocated to that subsidiary, the relating intangible assets, in particular acquired customer bases, were fully impaired. The related impairment costs of €10 million were included in the cost of sales.

The allocation of the brand names and goodwill to the operating segments is shown in the following table:

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Brand names by operating segment	949	990	1,017	1,059
Scania Vehicles and Services	949	990	1,017	1,059
Goodwill by operating segment	3,338	3,597	3,726	3,748
MAN Energy Solutions	-	106	92	92
MAN Truck & Bus	222	230	243	242
Scania Vehicles and Services	2,755	2,866	2,947	3,044
Volkswagen Caminhões e Ônibus	361	395	444	370

Goodwill and brand names are tested for impairment at least once a year by comparing the carrying amounts of the units to which goodwill is allocated with their value in use. Value in use is determined using the discounted cash flow method. Impairment testing is based on the current five-year planning for the division concerned. The value of the recognized goodwill is not impaired even if the growth forecast for the perpetuity or the discount rate varies by +/- 0.5 percentage points.

The following table shows the capitalized costs for products under development by operating segment:

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Capitalized development costs for products under development by operating segment	1,074	932	1367	1,028
MAN Energy Solutions	-	116	142	140
MAN Truck & Bus	774	681	454	300
Scania Vehicles and Services	264	126	594	455
Volkswagen Caminhões e Ônibus	37	10	177	133

Research and development costs were as follows:

€ million	Total	Continuing operations	Discontinued operations
2018:			
Total research and development costs	1,630	1,411	219
of which: capitalized development costs	490	449	41
Capitalization ratio in %	30%	32%	19%
Amortization of capitalized development costs	189	170	19
	1,329	1,132	197
2017:			
Total research and development costs	1,654	1,420	233
of which: capitalized development costs	459	409	49
Capitalization ratio in %	28%	29%	21%
Amortization of capitalized development costs	240	226	14
	1,434	1,237	198
2016:			
Total research and development costs	1,561	1,310	252
of which: capitalized development costs	453	399	54
Capitalization ratio in %	29%	30%	21%
Amortization of capitalized development costs	251	237	13
	1,360	1,148	212

16. Property, plant and equipment

CHANGES IN PROPERTY, PLANT AND EQUIPMENT IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2018

€ million	Land, land rights and buildings, including buildings on third-party land	Technical equipment and machinery	Other equipment, operating and office equipment	Payments on account and assets under construction	Investment Property	Total
Cost						
Balance at Jan. 1, 2018	4,144	4,797	2,297	881	49	12,167
Foreign exchange differences	-67	-94	-43	-28	-	-233
Changes in consolidated Group	0	5	1	-1	-	5
Additions	63	138	171	617	-	989
Transfers	193	211	156	-567	1	-7
Disposals	-32	-144	-96	-4	-1	-278
Reclassified as assets held for sale ¹	-507	-956	-429	-83	-	-1,974
Balance at Dec. 31, 2018	3,793	3,957	2,056	815	49	10,670
Depreciation and impairment						
Balance at Jan. 1, 2018	1,501	3,008	1,614	3	38	6,164
Foreign exchange differences	-25	-49	-26	-0	-	-99
Changes in consolidated Group	-1	4	-1	-	-	2
Additions to cumulative depreciation	116	315	195	-	0	626
Additions to cumulative impairment losses	22	8	5	0	0	36
Transfers	0	-1	1	-	0	-0
Disposals	-26	-136	-85	-	-0	-247
Reversal of impairment losses	0	-0	-1	-1	-	-2
Reclassified as assets held for sale ¹	-285	-665	-327	-	-	-1,277
Balance at Dec. 31, 2018	1,302	2,484	1,376	2	39	5,202
Carrying amount at Dec. 31, 2018	2,492	1,473	681	814	10	5,469
of which assets leased under finance leases						
Carrying amount at Dec. 31, 2018	2	1	0	0	-	3

1 Mainly relates to the reclassification of the Power Engineering business as held for sale in October 2018. The Power Engineering business was subsequently sold in December 2018. A small proportion relates to the reclassification as held for sale of VGSG in 2018. VGSG was sold in January 2019. See also note "Noncurrent assets held for sale and discontinued operations".

CHANGES IN PROPERTY, PLANT AND EQUIPMENT IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2017

€ million	Land, land rights and buildings, including buildings on third-party land	Technical equipment and machinery	Other equipment, operating and office equipment	Payments on account and assets under construction	Investment Property	Total
Cost						
Balance at Jan. 1, 2017	4,071	4,593	2,215	1,023	83	11,986
Foreign exchange differences	-92	-213	-70	-45	-	-420
Changes in consolidated Group	5	-1	1	-4	-	2
Additions	73	216	155	471	-	915
Transfers	94	356	95	-560	2	-12
Disposals	-9	-154	-100	-5	-36	-304
Balance at Dec. 31, 2017	4,144	4,797	2,297	881	49	12,167
Depreciation and impairment						
Balance at Jan. 1, 2017	1,426	2,989	1,557	4	69	6,046
Foreign exchange differences	-34	-166	-50	-0	-	-250
Changes in consolidated Group	-1	-3	0	-	-	-4
Additions to cumulative depreciation	112	328	193	-	1	634
Additions to cumulative impairment losses	0	0	0	0	1	2
Transfers	0	-0	-0	-	0	0
Disposals	-3	-140	-87	-	-33	-263
Reversal of impairment losses	-	-	-	-1	-	-1
Balance at Dec. 31, 2017	1,501	3,008	1,614	3	38	6,164
Carrying amount at Dec. 31, 2017	2,642	1,789	683	878	11	6,003
of which assets leased under finance leases						
Carrying amount at Dec. 31, 2017	5	1	0	-	-	7

CHANGES IN PROPERTY, PLANT AND EQUIPMENT IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2016

€ million	Land, land rights and buildings, including buildings on third-party land	Technical equipment and machinery	Other equipment, operating and office equipment	Payments on account and assets under construction	Investment Property	Total
Cost						
Balance at Jan. 1, 2016	3,888	4,106	2,113	858	97	11,061
Foreign exchange differences	10	-0	22	5	-	37
Changes in consolidated Group	0	10	1	-	-	10
Additions	61	155	156	791	-	1,162
Transfers	128	435	54	-626	-2	-10
Disposals	-17	-112	-130	-5	-12	-276
Balance at Dec. 31, 2016	4,071	4,593	2,215	1,023	83	11,986
Depreciation and impairment						
Balance at Jan. 1, 2016	1,325	2,783	1,463	3	80	5,654
Foreign exchange differences	1	-1	14	1	-	14
Changes in consolidated Group	0	8	0	-	-	8
Additions to cumulative depreciation	105	290	195	-	1	592
Additions to cumulative impairment losses	5	2	0	1	-	8
Transfers	-1	2	-0	-	-	1
Disposals	-8	-96	-115	-	-12	-230
Reversal of impairment losses	-	-0	-	-0	-	-0
Balance at Dec. 31, 2016	1,426	2,989	1,557	4	69	6,046
Carrying amount at Dec. 31, 2016	2,645	1,604	658	1,020	14	5,940
of which assets leased under finance leases						
Carrying amount at Dec. 31, 2016	5	2	1	-	-	7

Investment property consists of land and buildings held for rental and/or capital appreciation with a fair value of €46 million as of December 31, 2018 (December 31, 2017: €47 million, December 31, 2016: €56 million, January 1, 2016: €52 million). Rental income from investment property amounted €3 million in the reporting period (€6 million in 2017, €5 million in 2016). No valuation by an independent valuer was carried out. Generally, fair value is calculated using an income capitalization approach based on internal calculations (Level 3 in the fair value hierarchy). Amortization and impairment losses are included in the functional expenses, in particular cost of sales and selling expenses.

In the third quarter of 2018 the restructuring of MAN Truck & Bus India was initiated and executed in the fourth quarter 2018. In connection with the sale of assets allocated to that subsidiary related property, plant and equipment, in particular acquired property, technical equipment and machinery as well as specialised tools and devices were fully impaired. The related impairment costs of €20 million were included in the cost of sales. Additionally €15 million impairment costs relate to the closure of Scania's bus operations in India.

17. Lease assets

CHANGES IN LEASE ASSETS

€ million	2018	2017	2016
Cost Balance at Jan. 1	8,474	8,144	7,250
Foreign exchange differences	-149	-76	-119
Additions	2,738	2,666	2,806
Transfers	1	6	3
Disposals	-2,109	-2,265	-1,796
Balance at Dec. 31	8,955	8,474	8,144
Depreciation and impairment Balance at Jan. 1	2,370	2,304	2,112
Foreign exchange differences	-135	-54	-39
Additions to cumulative depreciation	1,050	1,128	1,074
Additions to cumulative impairment losses	44	-	-
Transfers	0	-0	-0
Disposals	-969	-1,008	-842
Reversal of impairment losses	-5	-	-
Balance at Dec. 31	2,356	2,370	2,304
Carrying amount at Dec. 31	6,599	6,103	5,840

Lease assets include assets for short-term rentals, operating leases, as well as vehicles capitalized due to repurchase obligations.

The following operating lease payments from noncancellable leases and rental agreements were expected to be received over the coming years:

€ million	2018	2017	2016	Jan. 1, 2016
Lease payments				
Within 1 year	359	339	357	305
1-5 years	525	480	526	483
More than 5 years	9	11	15	9
Total	893	829	898	797

18. Equity-accounted investments and other equity investments

From a Group perspective, the associates Sinotruk (Hong Kong, China) Ltd. and Navistar International Corporation (Lisle, USA) were material at the reporting date.

SINOTRUK

Sinotruk is one of the largest truck manufacturers in the Chinese market. There is an agreement in place between Group companies and Sinotruk regarding a long-term strategic partnership, under which the Group participates in the local market. In addition to the partnership with Sinotruk in the volume segment, exports of MAN vehicles to China are also helping to expand access to the small, but fast-growing premium truck market. Sinotruk's principal place of business is in Hong Kong, China.

In previous years TRATON GROUP recognized impairment losses from the investment in Sinotruk, as the recoverable amount was lower than the carrying amount due to negative cash flow forecasts and a decline in business. This impairment was reversed as of June 30, 2018 as Sinotruk's business situation recovered. The reversal in 2018 amounts to €190 million and was recognized in other financial result (see note "Other Financial Result").

As of December 31, 2018, the quoted market price of the shares in Sinotruk amounted to €908 million (December 31, 2017: €648 million, December 31, 2016: €466 million, January 1, 2016: €251 million).

SUMMARIZED FINANCIAL INFORMATION FOR SINOTRUK ON A 100% BASIS AND RECONCILIATION TO THE CARRYING AMOUNT

Summarized financial information for Sinotruk (on a 100% basis and thus not adjusted for the equity interest held by TRATON) and the reconciliation to the carrying amount are presented in the following tables:

Statement of comprehensive income				
€ million	2018 ¹	2017 ¹	2016 ¹	
Sales revenue	8,047	5,961	4,116	
Post-tax profit or loss from continuing operations	558	260	46	
Other comprehensive income	0	13	11	
Total comprehensive income	558	272	57	
Dividends received	53	6	2	

1 Amounts shown relate to the reporting period ended June 30 of the respective year.

Balance sheet				
€ million	Dec. 31, 2018 ¹	Dec. 31, 2017 ¹	Dec. 31, 2016 ¹	Jan. 1, 2016 ¹
Noncurrent assets	2,239	2,086	2,075	2,299
Current assets	6,461	5,449	4,034	4,472
Noncurrent liabilities	54	55	123	484
Current liabilities	5,250	4,420	3,029	3,204
Net assets	3,395	3,060	2,956	3,083
Reconciliation of the Financial Information to the Carrying Amount				
Net assets	3,395	3,060	2,956	3,083
Noncontrolling interests	347	327	317	299
Net assets attributable to shareholders	3,048	2,733	2,639	2,784
Interest held by TRATON GROUP in % ²	25	25	25	25
Net assets attributable to the TRATON GROUP	762	683	660	696
Impairment losses	-	-190	-190	-190
Consolidation/Goodwill/Others	-64	-50	-68	-106
Carrying amount at December 31	698	443	402	400

1 Amounts shown relate to the reporting period ended June 30 of the respective year.

2 25% plus one share

NAVISTAR

TRATON GROUP and US-based commercial vehicles manufacturer Navistar International Corporation, Lisle, USA, announced on September 6, 2016 that they had entered into a far-reaching alliance. This includes framework agreements for a strategic technology and supply cooperation, as well as a procurement joint venture. The transaction closed on February 28, 2017. TRATON GROUP initially acquired a 16.6% equity interest in Navistar by subscribing for a capital increase. The share price was USD15.76 and the total purchase price amounted to €0.3 billion.

TRATON can exercise significant influence over Navistar through the appointment of two members of the Board of Directors.

As of December 31, 2018, the quoted market price of the shares in Navistar amounted to €377 million (December 31, 2017: €595 million).

SUMMARIZED FINANCIAL INFORMATION FOR NAVISTAR ON A 100% BASIS AND RECONCILIATION TO THE CARRYING AMOUNT

Summarized financial information for Navistar (on a 100% basis and thus not adjusted for the equity interests held by TRATON) and the reconciliation to the carrying amount are presented in the following tables:

Statement of comprehensive income

€ million	2018 ¹	2017 ¹
Sales revenue	8,625	5,507
Post-tax profit or loss from continuing operations	310	95
Post-tax profit or loss from discontinued operations	-	1
Other comprehensive income	245	341
Total comprehensive income	555	437
Dividends received	-	-

1 Due to the first-time inclusion of Navistar and the fact that it has a different fiscal year, the consolidated income statement disclosures for 2017 relate to the period from March 1, 2017 to October 31, 2017. Consolidated income statement disclosures for 2018 refer to the period from November 1, 2017 to October 31, 2018.

Balance sheet

€ million	Dec. 31, 2018 ¹	Dec. 31, 2017 ¹
Noncurrent assets	1,846	1,648
Current assets	4,528	3,470
Noncurrent liabilities	6,478	5,893
Current liabilities	3,356	3,041
Net assets	-3,461	-3,816
Reconciliation of the Financial Information to the Carrying Amount		
Net assets	-3,461	-3,816
Noncontrolling interests	4	3
Net assets attributable to shareholders	-3,465	-3,819
Interest held by TRATON GROUP in %	17	17
Net assets attributable to the TRATON GROUP	-583	-645
Impairment losses	-	-
Consolidation/Goodwill/Others	1,013	946
Carrying amount at December 31	430	301

1 Amounts shown relate to the reporting period ended October 31 of the respective year.

SUMMARIZED FINANCIAL INFORMATION ON INDIVIDUALLY IMMATERIAL ASSOCIATES BASED ON THE TRATON GROUP'S PROPORTIONATE INTEREST:

The carrying amounts of other associates amounted to €43 million as of December 31, 2018 (December 31, 2017: €46 million, December 31, 2016: €37 million, January 1, 2016: €33 million). The following table contains summarized financial information on the other associates; the disclosures relate to the Group's share of the investees in all cases:

€ million	2018	2017	2016
Post-tax profit or loss from continuing operations	20	23	9
Post-tax profit or loss from discontinued operations	-	-	-
Other comprehensive income	1	-2	-3
Total comprehensive income	21	21	6

Unrecognized losses relating to investments in associates totaled €0 million as of December 31, 2018 (December 31, 2017: €0 million, December 31, 2016: €5 million, January 1, 2016: €3 million). There were no contingent liabilities relating to associates.

SUMMARIZED FINANCIAL INFORMATION ON INDIVIDUALLY IMMATERIAL JOINT VENTURES BASED ON THE TRATON GROUP'S PROPORTIONATE INTEREST:

The carrying amounts of joint ventures amounted to €51 million as of December 31, 2018 (December 31, 2017: €46 million, December 31, 2016: €52 million, January 1, 2016: €46 million). The following table contains summarized financial information on the joint ventures; the disclosures relate to the Group's share of the investees in all cases:

€ million	2018	2017	2016
Post-tax profit or loss from continuing operations	4	3	5
Post-tax profit or loss from discontinued operations	-	-	-
Other comprehensive income	-	-	-
Total comprehensive income	4	3	5

There were no unrecognized losses or contingent liabilities relating to investments in joint ventures.

OTHER EQUITY INVESTMENTS

Other equity investments include shares in unconsolidated subsidiaries, associates and joint ventures not accounted for using the equity method due to insignificance, and financial investments.

The following table contains summarized financial information on equity investments measured at fair value through other comprehensive income:

€ million	Fair Value			Dividends		
	2018	2017	2016	2018	2017	2016
Listed equity instruments:						
Enersize	0	1	-	-	-	-
Total	0	1	-	-	-	-
Unlisted equity instruments:						
Northvolt AB	10	-	-	-	-	-
Sennder	9	2	-	-	-	-
Corebon	3	-	-	-	-	-
Renk UAE	-	4	4	1	1	1
FR8 Revolution Inc.	-	5	4	-	-	-
Other Investments	3	3	3	-	-	-
Total	25	14	10	1	1	1

19. Noncurrent and current financial services receivables

€ million	CARRYING AMOUNT		FAIR VALUE		CARRYING AMOUNT		FAIR VALUE	
	Current	Noncurrent	Dec. 31, 2018	Dec. 31, 2018	Current	Noncurrent	Dec. 31, 2017	Dec. 31, 2017
Receivables from financing business								
Customer financing	844	1,627	2,471	2,438	786	1,431	2,217	2,217
Dealer financing	343	6	350	350	179	5	184	184
	1,187	1,634	2,821	2,788	966	1,436	2,402	2,402
Receivables from operating leases	2	-	2	2	-	-	-	-
Receivables from finance leases	1,499	2,578	4,076	4,078	1,353	2,368	3,721	3,721
	2,688	4,212	6,900	6,869	2,319	3,805	6,123	6,123

€ million	CARRYING AMOUNT		FAIR VALUE		CARRYING AMOUNT		FAIR VALUE	
	Current	Noncurrent	Dec. 31, 2016	Dec. 31, 2016	Current	Noncurrent	Jan. 1, 2016	Jan. 1, 2016
Receivables from financing business								
Customer financing	760	1,288	2,047	2,047	680	1,174	1,854	1,862
Dealer financing	214	0	215	215	191	2	193	193
	974	1,288	2,262	2,262	872	1,176	2,047	2,055
Receivables from operating leases	-	-	-	-	-	-	-	-
Receivables from finance leases	1,139	1,949	3,087	3,087	893	1,697	2,590	2,600
	2,112	3,237	5,350	5,350	1,764	2,873	4,637	4,654

Receivables from finance leases relate to commercial vehicle leases. The gross investment in the lease is the aggregate of the future lease payments receivable until expiration of the lease. The present value is obtained by discounting the gross investment in the lease at the interest rate implicit in the lease. The receivables from finance leases were or are expected to generate the following cash flows as of December 31, 2018, December 31, 2017, December 31, 2016 and January 1, 2016:

2018				
€ million	2019	2020 – 2023	from 2024	Total
Future payments from finance lease receivables	1,654	2,670	62	4,386
Unearned finance income from finance leases (discounting)	-155	-152	-1	-309
Present value of minimum lease payments outstanding at the reporting date	1,499	2,517	61	4,076

2017				
€ million	2018	2019 – 2022	from 2023	Total
Future payments from finance lease receivables	1,466	2,483	56	4,005
Unearned finance income from finance leases (discounting)	-113	-170	-1	-284
Present value of minimum lease payments outstanding at the reporting date	1,353	2,313	55	3,721

2016				
€ million	2017	2018 – 2021	from 2022	Total
Future payments from finance lease receivables	1,238	2,043	48	3,329
Unearned finance income from finance leases (discounting)	-100	-140	-1	-241
Present value of minimum lease payments outstanding at the reporting date	1,139	1,902	47	3,087

Jan. 1, 2016				
€ million	2016	2017 – 2020	from 2021	Total
Future payments from finance lease receivables	998	1,747	63	2,807
Unearned finance income from finance leases (discounting)	-105	-112	-	-218
Present value of minimum lease payments outstanding at the reporting date	893	1,634	63	2,590

Accumulated valuation allowances for uncollectible minimum lease payments receivable amount to €78 million on December 31, 2018, €78 million on December 31, 2017, €67 million on December 31, 2016 and €62 million on January 1, 2016.

20. Other financial assets

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Positive fair value of derivatives	146	118	136	221
Receivables from loans, bonds, profit participation rights (excluding interest)	113	200	474	523
Receivables from the profit and loss transfer agreement and tax allocation procedure with Volkswagen AG	4,161	28	32	0
Receivables for customer advances	-	165	240	217
Miscellaneous financial assets	2,014	365	298	230
	6,434	876	1,179	1,191

Other financial assets are reported in the following balance sheet items:

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Other financial assets (noncurrent)	63	93	402	512
Other financial assets (current)	6,371	782	777	679

Derivatives are measured at fair value. They are mainly used to hedge currency risks in customer orders and other foreign currency positions. Further details on derivative financial instruments as a whole are given in the section “Financial risk management and financial instruments”.

Miscellaneous financial assets contain €1,980 million of consideration receivable from a subsidiary of Volkswagen AG outside the TRATON GROUP relating to the disposal of the Power Engineering business.

Receivables from loans include €104 million as of December 31, 2018 (December 31, 2017: €197 million, December 31, 2016: €470 million, January 1, 2016: €518 million) from Volkswagen group companies.

21. Other receivables

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Other recoverable taxes	785	971	827	728
Miscellaneous receivables	817	426	430	455
	1,602	1,398	1,257	1,183

Other receivables are reported in the following balance sheets items:

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Other noncurrent receivables	663	662	598	180
Other current receivables	939	736	659	1,003

Current other receivables are predominantly non-interest-bearing.

22. Inventories

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Raw materials, consumables and supplies	548	795	715	658
Work in progress	461	1,149	1,081	1,076
Finished goods and purchased merchandise	3,801	3,761	3,503	3,241
Prepayments	13	76	107	96
	4,822	5,781	5,405	5,072

At the same time as the relevant sales revenue was recognized, inventories in the amount of €19,584 million as of December 31, 2018 (December 31, 2017: €18,610 million, December 31, 2016: €16,699 million) were included in cost of sales. Valuation allowances recognized as expenses in the reporting period amounted to €137 million as of December 31, 2018 (December 31, 2017: €48 million, December 31, 2016: €21 million). They include impairment costs of €21 million associated with the restructuring of MAN Truck & Bus India in the current year.

23. Trade receivables

Trade receivables consist of receivables from contracts with customers and contract assets.

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Receivables from contracts with customers	2,319	2,863	2,708	2,490
Contract assets	-	185	152	180
	2,319	3,048	2,860	2,670

€12 million of the trade receivables (December 31, 2017: €16 million, December 31, 2016: €13 million, January 1, 2016: €14 million) was due in more than one year.

Contract assets stem from the Power Engineering business. The following table provides an explanation of the changes of contract assets during the reporting period:

€ million	2018	2017	2016
Contract assets as of Jan. 1	185	152	180
Additions and disposals	-11	29	-27
Changes in impairment losses	10	6	0
Changes in measurements and estimates as well as contract modifications	-	0	-1
Currency translation adjustments	-0	-2	-1
Changes in the scope of consolidation	-184	-	-
Contract assets as of Dec. 31	-	185	152

Following the sale of the Power Engineering business, no contract assets exist any longer within the TRATON GROUP.

24. Marketable securities

The marketable securities serve to safeguard liquidity. Marketable securities are fixed-income securities with short maturity. They are allocated to the amortized cost financial assets category.

25. Cash and cash equivalents

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Cash at banks and on hand	1,075	1,284	1,464	2,031
Cash pooling	1,922	3,310	3,443	4,544
	2,997	4,594	4,907	6,575

The largest share of the cash pooling balance relates to cash retained for payouts from valuation proceedings (“Spruchverfahren”) for minority shareholders of MAN SE. A small amount relates to regular transactions from the operative business of TRATON. In 2018, the cash pooling balance decreased by €2,132 million as a result of the purchase of MAN SE shares tendered to the Company (see section Litigation).

The cash pooling includes short term cash equivalents due from Power Engineering companies. In accordance with the purchase contract Volkswagen AG guarantees the reimbursement of these receivables.

26. Equity

The subscribed capital of TRATON SE is composed of 10,000,200 no-par value bearer shares with a nominal value of €1 per share. The subscribed capital of €10,000,200 is fully paid-in. All shares were subscribed by Volkswagen AG. Before the change of the legal form to a public company on June 14, 2018 subscribed capital composed ownership of the parent company in TRATON SE.

Capital reserves of €21,331 million as of December 31, 2018 (December 31, 2017: €24,581 million, December 31, 2016: €24,271 million, January 1, 2016: €24,271 million) represent contributions of Volkswagen AG in TRATON SE, in particular relating to the contributions in kind of MAN SE (increasing the capital reserve by €9,058 million) and Scania AB (increasing the capital reserve by €11,952 million). During 2017, capital reserves were increased through a cash contribution by Volkswagen AG in the total amount of €311 million. In 2018 the management converted parts of the capital reserves into retained earnings for an intended distribution back to Volkswagen AG amounting to €3,250 million. The distribution was not yet approved as per December 31, 2018 and as such, no liability was recognized.

Retained earnings of €-2,064 million as of December 31, 2018 (December 31, 2017: €-10,760 million, December 31, 2016: €-11,817 million, January 1, 2016: €-12,059 million) represent amounts that were recorded as earnings after tax in previous periods. They also include the difference between the value of the MAN SE shares at which they were contributed to TRATON SE and the recognized book value of corresponding assets and liabilities. This difference amounted to €2,963 million as of January 1, 2016. The accumulated other comprehensive income of €-2,478 million as of December 31, 2018 (December 31, 2017: €-2,130 million, December 31, 2016: €-1,635 million, January 1, 2016: €-1,466 million) includes the cumulative amounts of transactions recorded in other comprehensive income, in particular, exchange differences on translating foreign operations and pension plan remeasurements. For further information, see the Consolidated Statement of Comprehensive Income.

Other changes of €157 million in the pension plan reserve in 2018 relate to a change in presentation following the deconsolidation of the Power Engineering business.

In accordance with the domination and profit and loss transfer agreement between Volkswagen AG and TRATON SE, TRATON SE will transfer its annual result (as determined under German statutory accounting rules and subject to certain limitations within German commercial law) to Volkswagen AG and accordingly, does not distribute dividends.

NONCONTROLLING INTERESTS

The noncontrolling interests in 2016 and 2017 are mainly attributable to Renk Aktiengesellschaft, Augsburg, in which TRATON, through its subsidiary MAN SE, held a 76% interest until December 31, 2018. The following table presents summarized financial information for Renk. For 2018, no information is presented as Renk Aktiengesellschaft as part of the Power Engineering business was sold as per December 31, 2018 (see note “Noncurrent assets held for sale and discontinued operations”). As a result of the domination and profit and loss transfer agreement concluded between MAN SE and TRATON SE in June 2013, noncontrolling interest shareholders of MAN SE are entitled to a cash settlement or a cash compensation in accordance with German law. Their shares are not part of equity, they are presented in “Put Options and Compensation Rights Granted to Noncontrolling Interest Shareholders” instead. The domination and profit and loss transfer agreement with MAN SE was terminated with effect from January 1, 2019.

€ million	2017	2016	Jan. 1, 2016
Interest attributable to noncontrolling interest shareholders	24	24	24
Noncurrent assets	218	217	209
Current assets	494	507	472
Total assets at Dec. 31	712	724	681
Noncurrent liabilities and provisions	94	122	97
Current liabilities and provisions	193	209	221
Total liabilities and provisions at Dec. 31	287	331	318
Net assets	425	393	363
Carrying amount attributable to noncontrolling interest shareholders	102	94	87
Sales revenue ¹	469	495	-
Profit after tax ¹	43	44	-
Other comprehensive income	4	-	-
Total comprehensive income	47	44	-
Net income attributable to noncontrolling interest shareholders	10	11	-
Other comprehensive income attributable to noncontrolling interest shareholders	1	-	-
Dividends allocated to noncontrolling interest shareholders	3	3	-
Net cash provided by operating activities ²	25	57	-
Net cash provided by/used in investing activities ²	-24	55	-
Net cash used in financing activities ²	-15	-15	-
Net change in cash and cash equivalents	-15	97	-

1 Included in profit from discontinued operations.

2 Included in cash flow from discontinued operations.

27. Financial liabilities

The details of noncurrent and current financial liabilities are presented in the following table:

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Bonds	4,820	3,448	3,364	3,790
Liabilities to banks	2,770	3,044	3,586	2,705
Loans and other liabilities	3,224	2,479	2,090	997
	10,814	8,971	9,040	7,492

Financial liabilities from bonds mainly relate to European Medium Term Notes (EMTN). The increase in bonds in 2018 relates to the growth of financing activities, carried out by the Financial Services business.

Loans and other liabilities include loans from Volkswagen AG of €2,293 million (December 31, 2017: €2,255 million, December 31, 2016: €1,877 million, January 1, 2016: €400 million). The increase in loans and other liabilities in 2018 mainly relates to liabilities towards the Power Engineering business of €759 million following deconsolidation as of December 31, 2018. The liabilities related to the Power Engineering business remain generally as liabilities in the normal course of the business of these entities.

TRATON's credit facilities include customary Change of Control clauses, which means that the counterparty could demand early payment in case of significant changes in ownership involving a change in control of the company.

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Noncurrent financial liabilities	5,449	5,545	3,555	4,899
Current financial liabilities	5,366	3,426	5,485	2,593

28. Other financial liabilities

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Liabilities from buyback obligations	3,407	3,126	2,867	2,509
Negative fair values of derivative financial instruments	176	169	197	186
Interest payable	87	66	46	42
Liabilities from the profit and loss transfer agreement and tax allocation procedure with Volkswagen AG	0	0	0	1,482
Dividends payable	-	-	-	905
Miscellaneous other financial liabilities	283	54	54	401
	3,953	3,415	3,165	5,526

The liabilities from buyback obligations result from repurchase obligations of sold commercial vehicles accounted for as operating leases because of a buyback agreement.

Other financial liabilities include the negative fair value of derivatives. Because these instruments are predominantly used to hedge currency risks in customer orders, they are matched in this respect by offsetting effects from the underlying.

The dividends payable were decided in an Extraordinary General Meeting of Scania AB in December 2015. They were paid out to the former shareholder, Volkswagen AG, in 2016.

Other financial liabilities are reported in the following balance sheets items:

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Other noncurrent financial liabilities	2,333	2,239	2,105	2,144
Other current financial liabilities	1,620	1,176	1,060	3,382

Further details on derivative financial instruments as a whole are given in the section entitled "Financial risk management and financial instruments".

29. Other liabilities

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Deferred purchase price payments for assets leased out	2,289	2,151	2,056	1,856
Payroll liabilities	724	868	795	668
Miscellaneous other tax payables	389	581	521	472
Liabilities related to social security contributions	161	166	146	121
Contract liabilities	1,124	1,716	1,632	1,588
Miscellaneous other liabilities	356	554	524	172
	5,043	6,035	5,674	4,876

The reduction of contract liabilities mainly stems from the reclassification as held for sale of the Power Engineering business that was disposed of in 2018.

Other liabilities are reported in the following balance sheet items:

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Other noncurrent liabilities	1,780	1,963	1,994	1,469
Other current liabilities	3,263	4,072	3,681	3,407

The following table provides an explanation of the changes of contract liabilities during the reporting period:

€ million	2018	2017	2016
Contract liabilities as of Jan. 1	1,716	1,632	1,588
Additions and disposals	91	118	32
Changes in measurements and estimates as well as contract modifications	-	-	-
Currency translation adjustments	-18	-36	12
Changes in the scope of consolidation	-665	2	-0
Contract liabilities as of Dec. 31	1,124	1,716	1,632

30. Provisions for pensions and other post-employment benefits

Provisions for pensions are recognized for commitments in the form of retirement, invalidity, dependents and other benefits payable under pension plans. The benefits provided by the Group vary according to the legal, tax and economic circumstances of the country concerned, and usually depend on the length of service and remuneration of the employees.

TRATON GROUP companies provide occupational pensions under both defined contribution and defined benefit plans. In the case of defined contribution plans, companies contribute to state or private pension schemes based on legal or contractual requirements, or on a voluntary basis. Once the contributions have been paid, there are no further obligations for the TRATON GROUP. Current contributions are recognized as pension expenses of the period concerned. They amounted to a total of €276 million as of December 31, 2018 (December 31, 2017: €257 million, December 31, 2016: €238 million) in the TRATON GROUP.

In the case of defined benefit plans, a distinction is made between unfunded pensions and plans funded by external assets.

The pension provisions for defined benefits are measured by independent actuaries using the internationally accepted projected unit credit method in accordance with IAS 19, under which the future obligations are measured based on the ratable

benefit entitlements earned as of the balance sheet date. Measurement reflects actuarial assumptions as to discount rates, salary and pension trends, employee turnover rates, longevity and increases in healthcare costs, which were determined for each Group company depending on the economic environment. Remeasurements arise from differences between what has actually occurred and the prior-year assumptions as well as from changes in assumptions. They are recognized in other comprehensive income, net of deferred taxes, in the period in which they arise.

Significant Pension Arrangements in the TRATON GROUP

For the period after their active working life, the TRATON GROUP offers its employees benefits under attractive, modern occupational pension arrangements. Most of the arrangements in the TRATON GROUP classify as defined benefit plans under IAS 19. To reduce the risks associated with defined benefit plans, in particular longevity, salary increases and inflation, the TRATON GROUP makes use of defined benefit plans whose benefits are funded by appropriate external plan assets. The above-mentioned risks have been largely reduced in these pension plans. The significant pension plans are described in the following.

SCANIA'S UNFUNDED SWEDISH PENSION PLANS

Scania's employees in Sweden are covered through post-employment benefit plans that offer benefits in the form of retirement pensions, early retirement pensions, dependent's protection, health care and severance pay. Depending on their function and age, employees are eligible to enroll in either the SAF/LO defined-contribution plan or the ITP plan, both of which are multi-employer plans based on collective agreements.

The ITP plan has two parts, ITP1, which is a defined-contribution plan applying to employees born in 1979 or later, and ITP2, a defined-benefit plan applying to employees born before 1979. Most of the ITP2 plan is funded solely through recognized provisions, safeguarded through credit insurance from the mutual insurance company Försäkringsbolaget PRI Pensionsgaranti, which also administers the plan.

Asides from these obligations, there are early retirement defined-benefit obligations for workers who at the age of 62 have worked for 30 years or who at the age of 63 have worked for 25 years in the company, as well as to a limited number of persons in managerial positions.

As the obligations are funded solely through recognized provisions, the company bears the risks arising from changes in the longevity of plan participants as well as from changes in interest rate risk, as the present value of the guaranteed obligation rises as interest rates fall and is therefore exposed to interest rate risk.

MAN'S GERMAN PENSION PLANS FUNDED BY EXTERNAL PLAN ASSETS

Once their active working life is over, the MAN Group grants its employees in Germany benefits provided by a modern, attractive occupational pension system that constitute a key element of its remuneration policy. Occupational pensions provide reliable additional retirement benefits as well as risk protection in the event of invalidity or death.

Under MAN's current pension plans, all active employees receive employer contributions that are tied to their remuneration and can also make additional provision through deferred compensation — which is employer-subsidized for staff subject to collective bargaining agreements. The employer- and employee-funded contributions plus returns on capital market investments allow staff to accumulate plan assets during their active employment that are paid out as a lump sum or in installments on retirement, or that can be annuitized in certain cases. The risk of the investments is gradually reduced as employees get older (lifecycle concept). The performance of the plan assets is based on the return on capital investments. In line with the legislative requirements, at a minimum the total amount of contributions paid in for the employee are paid out when the employee retires.

Former employees, pensioners, or employees with vested benefits who have left MAN have benefit commitments from discontinued pension plans, most of which are designed to provide lifelong pension payments. These commitments are exposed to the standard longevity and inflation risks, which are regularly monitored and assessed.

MAN's German pension assets are managed by MAN Pension Trust e.V. and MAN Pensionsfonds AG. These assets are irrevocably protected from recourse by the Group companies and may only be used to fund current pension benefit payments or to settle claims by employees in the event of insolvency. Proper management and utilization of the trust assets are supervised by independent trustees. Additionally, MAN Pensionsfonds AG is regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin — German Federal Financial Supervisory Authority).

The pension assets are invested by professional investment managers in accordance with investment rules laid down by MAN's investment committee. Strategic allocation of the pension assets is based on regular asset/liability management studies. The assets attributable to the current pension plans are generally invested with the objective of covering the performance risk resulting from the return parameters of the lifecycle concept.

PENSION PLANS IN OTHER TRATON COUNTRIES

Employees in the United Kingdom, Switzerland, and Brazil receive pension benefits under defined benefit funded pension plans.

MAN's pension plans in the United Kingdom have been closed and grant lifelong pension benefits plan. Trustee boards, which have appointed professional administrators and advisers, are responsible for administering the pension plans, including investing the assets. Regular asset/liability management studies form the basis for investment and risk management. The investment risk is being successively reduced as part of a defined de-risking strategy as funding ratios improve.

Scania's employees at Scania Great Britain (SGB) are covered by a premium-based occupational pension. Both the company and employees contribute to the plan. There are defined-benefit plans, which are closed for future accruals since May 31, 2003. All plans are administered by trustees who are responsible for ensuring that SGB has sufficient financing to fully meet all vested/earned benefits for all members. The normal retirement age in the schemes is 65.

For Scania's employees in Switzerland the Pensionskasse and the Wohlfahrtsstiftung are the legal carriers of the pension plans and reviewing early retirement pension. Contributions are split between employer and employees for the basic pension plan and in the supplementary plan for members of the management. Switzerland recognises the net pension assets in the balance sheet and an asset ceiling is thus applied.

Employees at Scania Latin America Ltda are covered by four post-employment defined-benefit plans. Three health care plans cover medical, dental and pharmaceutical expenses as well as the cost of a life insurance plan. The plans are open to personnel retiring at a minimum age of 55 with at least 10 years' service.

Furthermore, in other countries, there are pension plans with a low level of benefits or mandatory post-employment benefits are granted. These benefits are backed in full (Brazil) or in part (Belgium, France, India) by capital, or unfunded (Austria, Turkey, Poland).

There is a general prohibition on acquiring securities issued by companies in the Volkswagen Group.

MULTI-EMPLOYER PENSION PLANS

Multi-employer pension plans exist in the TRATON GROUP in Sweden, Switzerland and the Netherlands. These plans are mostly defined benefit plans.

In the Multiple-employer pension institutions in Switzerland the employees accumulate plan assets in these institutions that are then converted into a lifelong annuity at the terms prevailing when the employee reaches pensionable age. The pension institutions are managed conservatively based on standards imposed by government. If the plan assets are insufficient to meet the pension entitlements because of adverse market developments, the member employers and their employees can be required to make "stabilization contributions."

A small proportion of Multi-employer pension plans are accounted for as defined contribution plans, as the TRATON GROUP is not authorized to receive the information required in order to account for them as defined benefit plans. For the TRATON GROUP, this applies to the Dutch pension funds Pensioenfond Metaal en Techniek and Bedrijfstakpensioenfond Metal Elektro, which are administered via MN Services, as well as the portion of the Swedish ITP occupational pension plan that is administered via the retirement insurance company Alecta. In the Dutch plans, both companies and employees contribute to the plan. The consolidation level of PMT was 102% (as of December 31, 2018, 102% as of December 31, 2017, 97% as of December 31, 2016, 98% as of January 1, 2016) and for PME 101% (as of December 31, 2018, 102% as of December 31, 2017, 96% as of December 31, 2016, 98% as of January 1, 2016). At year-end 2018, Alecta's surplus, in the form of a collective consolidation level (assets in relation to the insurance obligation), amounted to 142% in Sweden (as of December 31, 2018, 154% as of December 31, 2017, 149% as of December 31, 2016, 153% as of January 1, 2016). If the consolidation level falls below or exceeds the normal range (122-155), Alecta shall take measures, for example raise agreed subscription prices and extension of existing benefits, or introduce premium reductions. Alecta's insurance obligation is calculated according to Alecta's actuarial methods and assumptions, which deviate from the methods and assumptions applied in measurement of defined-benefit pensions according to IAS 19. No probable significant risks arising from multi-employer defined benefit pension plans that are

accounted for as defined contribution plans have been identified. The expected contributions to those plans will amount to €10 million for fiscal year 2019. Under the terms of the multi-employer plans, the TRATON GROUP has a very limited liability for the obligations of the other employers. In the event of its withdrawal from the plans or their winding-up, the proportionate share of the surplus of assets attributable to the TRATON GROUP will be credited or the proportionate share of the deficit attributable to the TRATON GROUP will have to be funded. In the case of the defined benefit plans accounted for as defined contribution plans, the TRATON GROUP's share of the obligations represents a small proportion of the total obligations.

The following amounts were recognized in the consolidated balance sheet for defined benefit plans:

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Present value of funded obligations	1,996	3,302	3,331	3,034
Fair value of plan assets	1,647	2,770	2,736	2,593
Funded status (net)	349	532	595	442
Present value of unfunded obligations	1,139	995	927	835
Amount not recognized as an asset because of the ceiling in IAS 19	4	1	1	3
Net liability recognized in the consolidated balance sheet	1,493	1,528	1,523	1,279
of which provisions for pensions	1,506	1,541	1,526	1,295
of which other assets	14	13	2	15

Calculation of the pension provisions was based on the following actuarial assumptions:

%	GERMANY				SWEDEN				OTHER COUNTRIES			
	2018	2017	2016	1.1.2016	2018	2017	2016	1.1.2016	2018	2017	2016	1.1.2016
Discount rate at Dec. 31	1.71	1.60	1.60	2.70	2.50	2.75	2.75	3.00	2.98	1.98	2.11	2.65
Payroll trend	3.47	3.60	3.20	3.40	2.75	2.75	3.00	3.00	1.16	1.11	2.50	2.25
Pension trend	1.50	1.50	1.50	1.70	2.00	2.00	1.50	1.50	0.99	1.22	1.25	1.11
Employee turnover rate	4.27	4.39	4.42	4.44	6.60	4.50	5.00	5.00	3.13	3.55	4.04	4.06

These assumptions are averages that were weighted using the present value of the defined benefit obligation. With regard to life expectancy, consideration is given to the latest mortality tables in each country. The discount rates are generally defined to reflect the yields on highly rated corporate bonds with matching maturities and currencies. The payroll trends cover expected wage and salary trends, which also include increases attributable to career development. The pension trends either reflect the contractually guaranteed pension adjustments or are based on the rules on pension adjustments in force in each country. The employee turnover rates are based on past experience and future expectations.

The following table shows changes in the net defined benefit liability recognized in the consolidated balance sheet:

€ million	2018	2017	2016
Net liability recognized in the balance sheet at Jan. 1	1,528	1,523	1,279
Current service cost	118	118	120
Net interest expense	36	38	38
Actuarial gains (-)/losses (+) arising from changes in demographic assumptions	-15	28	15
Actuarial gains (-)/losses (+) arising from changes in financial assumptions	-20	12	373
Actuarial gains (-)/losses (+) arising from experience adjustments	16	53	10
Income/expenses from plan assets not included in interest income	85	-116	-96
Change in amount not recognized as an asset because of the ceiling in IAS 19	3	0	-2
Employer contributions to plan assets	-45	-47	-126
Employee contributions to plan assets	9	8	7
Pension payments from company assets	-47	-56	-48
Pension payments from the Fund	0	0	-0
Past service cost (including plan curtailments)	-16	2	-31
Gains (-) or losses (+) arising from plan settlements	-0	-2	-0
Changes in consolidated Group	-124	-0	-
Other changes	3	-0	4
Foreign exchange differences from foreign plans	-38	-34	-20
Net liability recognized in the balance sheet at Dec. 31	1,493	1,528	1,523

The change in the present value of the defined benefit obligation is attributable to the following factors:

€ million	2018	2017	2016
Present value of obligations at Jan. 1	4,297	4,257	3,869
Current service cost	118	118	120
Interest cost	83	86	107
Actuarial gains(-)/losses (+) arising from changes in demographic assumptions	-15	28	15
Actuarial gains(-)/losses (+) arising from changes in financial assumptions	-20	12	373
Actuarial gains(-)/losses (+) arising from experience adjustments	16	53	10
Employee contributions to plan assets	17	17	16
Pension payments from company assets	-47	-56	-48
Pension payments from plan assets	-88	-120	-113
Past service cost (including plan curtailments)	-16	2	-31
Gains (-) or losses (+) arising from plan settlements	-1	-2	-0
Changes in consolidated Group	-1,134	-1	-
Other changes	-46	0	6
Foreign exchange differences from foreign plans	-29	-99	-66
Present value of obligations at Dec. 31	3,135	4,297	4,257

For MAN's pension plans in the United Kingdom in 2018 a past service gain resulted from the implementation of a Bridging Pension Option as well as a permanent Pension Increase Exchange Option.

Reductions from changes in consolidated Group relate to the sale of the Power Engineering business.

Changes in the relevant actuarial assumptions would have had the following effects on the defined benefit obligation:

		DEC. 31, 2018		DEC. 31, 2017		DEC. 31, 2016		JAN. 1, 2016	
Present value of defined benefit obligation if		€ million	Change in percent	€ million	Change in percent	€ million	Change in percent	€ million	Change in percent
Discount rate	is 0.5 percentage points higher	2,921	-6.83%	4,024	-6.36%	3,981	-6.49%	3,628	-6.24%
	is 0.5 percentage points lower	3,378	7.74%	4,608	7.23%	4,572	7.38%	4,143	7.09%
Pension trend	is 0.5 percentage points higher	3,279	4.57%	4,476	4.18%	4,435	4.17%	4,033	4.24%
	is 0.5 percentage points lower	3,004	-4.19%	4,133	-3.80%	4,095	-3.81%	3,719	-3.88%
Payroll trend	is 0.5 percentage points higher	3,232	3.09%	4,365	1.58%	4,320	1.47%	3,931	1.58%
	is 0.5 percentage points lower	3,063	-2.32%	4,238	-1.37%	4,202	-1.30%	3,815	-1.41%
Longevity	increases by one year	3,224	2.82%	4,405	2.52%	4,365	2.52%	3,965	2.48%

The sensitivity analysis shown above considers the change in one assumption at a time, leaving the other assumptions unchanged versus the original calculation, i.e. any correlation effects between the individual assumptions are ignored. To examine the sensitivity of the present value of the defined benefit obligation to a change in assumed longevity, the age of the beneficiaries was reduced by one year as part of a comparative calculation. The average duration of the defined benefit obligation weighted by the present value of the defined benefit obligation (Macaulay duration) is 15 years in 2018 (14 years in 2017 and 14 years in 2016).

The maturity profile of payments attributable to the defined benefit obligation is presented in the following table, which classifies the present value of the obligation by the maturity of the underlying payments:

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Payments due within the next fiscal year	111	164	171	160
Payments due between two and five years	432	617	618	579
Payments due in more than five years	2,592	3,517	3,468	3,130
	3,135	4,297	4,257	3,869

Changes in plan assets are shown in the following table:

€ million	2018	2017	2016
Fair value of plan assets at Jan. 1	2,770	2,736	2,592
Interest income on plan assets determined using the discount rate	47	48	69
Income/expenses from plan assets not included in interest income	-85	116	96
Employer contributions to plan assets	45	47	126
Employee contributions to plan assets	8	9	9
Pension payments from plan assets	-88	-120	-113
Gains (+) or losses (-) arising from plan settlements	0	-	-
Changes in consolidated Group	-1,010	-1	-
Other changes	-49	0	2
Foreign exchange differences from foreign plans	10	-65	-46
Fair value of plan assets at Dec. 31	1,647	2,770	2,736

Reductions from changes in consolidated Group relate to the sale of the Power Engineering business.

Employer contributions to plan assets are expected to amount to €53 million in the next fiscal year (as of December 31, 2018, €66 million as of December 31, 2017, €77 million as of December 31, 2016, €96 million as of January 1, 2016).

Plan assets are invested in the following asset classes:

€ million	DEC. 31, 2018			DEC. 31, 2017		
	Quoted prices in active markets	No quoted prices in active markets	Total	Quoted prices in active markets	No quoted prices in active markets	Total
Cash and cash equivalents	52	2	54	81	5	86
Equity instruments	45	-	45	82	-	82
Debt instruments	168	4	172	192	0	193
Direct investments in real estate	11	4	15	2	87	90
Derivatives	0	0	0	0	0	0
Equity funds	375	-	375	600	-	600
Bond funds	441	-	441	806	-	806
Real estate funds	76	-	76	112	-	112
Other funds	24	0	24	182	4	186
Other instruments	29	418	446	40	575	615
Fair value of plan assets	1,220	428	1,647	2,098	672	2,770

€ million	DEC. 31, 2016			JAN. 1, 2016		
	Quoted prices in active markets	No quoted prices in active markets	Total	Quoted prices in active markets	No quoted prices in active markets	Total
Cash and cash equivalents	106	-	106	80	-	80
Equity instruments	90	-	90	84	-	84
Debt instruments	208	0	209	198	0	199
Direct investments in real estate	2	92	94	2	85	87
Derivatives	0	-	0	0	-	0
Equity funds	583	-	583	541	-	541
Bond funds	893	-	893	912	-	912
Real estate funds	88	-	88	77	-	77
Other funds	81	2	83	47	2	49
Other instruments	32	558	590	24	539	563
Fair value of plan assets	2,083	652	2,736	1,966	626	2,592

29% (as of December 31, 2018, as of December 31, 2017 24%, as of December 31, 2016 24%, as of January 1, 2016 25%) of the plan assets are invested in German assets, 50% (as of December 31, 2018, as of December 31, 2017 59%, as of December 31, 2016 54%, as of January 1, 2016 57%) in other European assets and 21% (as of December 31, 2018, as of December 31, 2017 18%, as of December 31, 2016 22%, as of January 1, 2016 19%) in assets in other regions.

Plan assets include €7 million as of December 31, 2018, from which €4 million were financial and €4 million non-financial positions (€4 million as of December 31, 2017: €0 million financial and €4 million non-financial; €4 million as of December 31, 2016: €0 million financial and €4 million non-financial; 5 million as of January 1, 2016: €0 million financial and €5 non-financial) invested in TRATON GROUP assets.

Changes in the effect of the assets ceiling are shown in the following table:

€ million	2018	2017	2016
Effect of the assets ceiling at Jan. 1	1	1	3
Interest expenses	0	0	0
Change in amount not recognized as an asset because of ceiling in IAS 19	3	0	-2
Foreign exchange differences from foreign plans	0	0	0
Effect of the assets ceiling at Dec. 31	4	1	1

The following amounts were recognized in the consolidated income statement:

€ million	2018	2017	2016
Current service cost	-89	-89	-89
Net interest on the net defined benefit liability	-34	-36	-35
Past service cost (including plan curtailments)	8	-2	7
Gains (+) or losses (-) arising from plan settlements	0	2	0
Net income (+) and expenses (-) recognized in profit or loss	-115	-125	-117

The above amounts are generally included in the personnel costs of the functions in the consolidated income statement. Net interest on the net defined benefit liability is reported in interest expenses.

31. Other provisions

€ million	Obligations arising from sales	Employee expenses	Litigation and legal risks	Miscellaneous provisions	Total
Balance at Jan. 1, 2018	1,197	235	504	741	2,677
Foreign exchange differences	-18	-2	-26	-11	-58
Changes in consolidated Group	-2	-7	-1	-35	-45
Utilized	-377	-51	-20	-204	-652
Additions/New provisions	591	69	33	247	940
Unwinding of discount/effect of change in discount rate	-10	1	-	-	-10
Reversals	-176	-4	-15	-82	-278
Classified as held for sale	-148	-56	-9	-241	-453
Balance at Dec. 31, 2018	1,056	184	467	415	2,122
of which current	563	44	18	313	938
of which noncurrent	493	140	449	103	1,184
Balance at Jan. 1, 2017	1,234	208	512	961	2,915
Foreign exchange differences	-22	-2	-24	-20	-69
Changes in consolidated Group	6	-	-	1	7
Utilized	-451	-50	-11	-279	-791
Additions/New provisions	609	80	35	235	959
Unwinding of discount/effect of change in discount rate	-7	1	-	-2	-8
Reversals	-171	-2	-8	-154	-335
Balance at Dec. 31, 2017	1,197	235	504	741	2,677
of which current	686	55	20	597	1,359
of which noncurrent	511	179	484	144	1,319
Balance at Jan. 1, 2016	1,172	169	111	848	2,300
Foreign exchange differences	11	1	14	18	44
Changes in consolidated Group	5	0	0	1	6
Utilized	-451	-49	-16	-269	-784
Additions/New provisions	616	107	428	447	1,599
Unwinding of discount/effect of change in discount rate	1	1	-	1	3
Reversals	-120	-22	-26	-85	-253
Balance at Dec. 31, 2016	1,234	208	512	961	2,915
of which current	696	53	18	755	1,522
of which noncurrent	538	156	494	206	1,393

The obligations arising from sales contain provisions covering all risks relating to the sale of vehicles, components and genuine parts. They primarily comprise warranty obligations for statutory and contractual guarantee obligations. The timing of settlement of provisions for warranties depends on the occurrence of the warranty claim. They also include provisions for discounts, bonuses and similar allowances which are incurred after the balance sheet date, but for which there is a legal or constructive obligation attributable to sales revenue before the balance sheet date.

Provisions for employee expenses are recognized for long-service awards, partial retirement arrangements, severance payments and similar obligations, among other things.

Provisions for litigation and legal risks are largely the result of the antitrust proceedings that the European Commission opened in 2011 against European truck manufacturers. Further information and the impact on provisions can be found in the

section entitled “Litigation”. In addition, the provisions for litigation and legal risks contain amounts related to a large number of legal disputes and official proceedings in which TRATON GROUP companies become involved in Germany and internationally in the course of their operating activities. In particular, such legal disputes and other proceedings may occur in relation to suppliers, dealers, customers, and employees. Please refer to the “Litigation” section for a discussion of the legal risks.

Miscellaneous provisions relate to a wide range of identifiable specific risks and uncertain obligations arising from operative activities, which are measured in the amount of the expected settlement value. Miscellaneous provisions additionally include provisions for restructuring measures amounting to €38 million as of December 31, 2018 (December 31, 2017: €123 million, December 31, 2016: €309 million, January 1, 2016: €186 million). In 2017, an amount of €91 million of restructuring provisions was released, €50 million of which related to MAN Truck & Bus and €41 million to discontinued operations.

32. Put options and compensation rights granted to noncontrolling interest shareholders

This balance sheet item consists primarily of the present value of the cash settlement in accordance with section 305 of the Aktiengesetz (AktG – German Stock Corporation Act) offered to MAN shareholders in connection with the domination and profit and loss transfer agreement at €90.29 per share. The decrease in 2018 mainly results from the purchase of shares tendered to the Company, which lead to an increase of TRATON’s shareholding in MAN SE from 74.55% to 86.87% by December 31, 2018. In 2018, cash payments of €2,132 million for compensation rights and the purchase of MAN SE shares tendered to TRATON were made. Further information is included in the section “Litigation”.

Additional financial instruments disclosures in accordance with IFRS 7

CLASSES OF FINANCIAL INSTRUMENTS

Financial instruments are divided into the following classes at the TRATON GROUP:

- financial instruments measured at fair value
- financial instruments measured at amortized cost
- derivative financial instruments within hedge accounting and
- financial instruments not allocated to any IFRS 9 category.

Financial instruments not allocated to any IFRS 9 category include in particular investments in associates and joint ventures accounted for using the equity method.

NET GAINS OR LOSSES FROM FINANCIAL INSTRUMENTS BY IFRS 9 MEASUREMENT CATEGORY

€ million	2018	2017	2016
Net gains or losses from:			
Financial instruments measured at fair value through profit or loss	-62	-35	-231
Financial assets measured at amortized cost	444	210	334
Financial liabilities measured at amortized cost	-636	-421	-416
Equity instruments measured at fair value through OCI	1	1	1

€ million	2018	2017	2016
Gains recognized from the derecognition of financial assets measured at amortized cost	3	4	3
Losses recognized from the derecognition of financial assets measured at amortized cost	-20	-17	-18
Gains and losses arising from the derecognition of financial assets measured at amortized cost	-17	-13	-15

Net gains and losses from financial assets and liabilities at fair value through profit or loss are composed of derivative financial instruments not included in a hedging relationship.

Net gains and losses from financial assets measured at fair value through OCI primarily comprise dividends from investments.

Net gains and losses from financial assets and financial liabilities carried at amortized cost comprise interest income and expenses in accordance with the effective interest method under IFRS 9, including currency translation effects. In addition, net gains and losses on financial assets include impairment losses as well as their respective reversals.

TOTAL INTEREST INCOME AND EXPENSES ATTRIBUTABLE TO FINANCIAL INSTRUMENTS NOT MEASURED AT FAIR VALUE THROUGH PROFIT OR LOSS

€ million	2018	2017	2016
Interest income from:			
Financial assets at amortized cost	182	193	183
Interest expenses from:			
Financial liabilities measured at amortized cost	-234	-326	-325

Interest income on impaired financial assets is insignificant because receipt of payment is expected in the short term in most cases.

CARRYING AMOUNT OF FINANCIAL INSTRUMENTS BY IFRS 9 MEASUREMENT CATEGORY

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Financial assets measured at amortized cost	18,603	14,389	14,091	14,680
Financial assets measured at fair value through OCI	25	13	10	4
Financial assets measured at fair value through profit or loss	137	83	91	203
Total financial assets	18,765	14,485	14,192	14,887
Financial liabilities measured at amortized cost	19,387	19,519	19,219	19,740
Financial liabilities measured at fair value through profit or loss	158	163	182	138
Total financial liabilities	19,545	19,682	19,401	19,878

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS

The following table shows the reconciliation of the balance sheet items to the relevant classes of financial instruments, broken down by the carrying amount and fair value of the financial instruments.

The fair value of financial instruments measured at amortized cost is calculated by discounting using a market rate of interest for a similar risk and matching maturity. For reasons of materiality, the fair value of current balance sheet items is generally deemed to be their carrying amount.

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS AS OF DECEMBER 31, 2018

€ million	MEASURED AT FAIR VALUE		MEASURED AT AMORTIZED COST		DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING	NOT ALLOCATED TO ANY IFRS 9 CATEGORY	BALANCE SHEET ITEM AT DEC. 31, 2018
	Recognized in other comprehensive income	Through profit and loss	Carrying amount	Fair value	Carrying amount	Carrying amount	
Noncurrent assets							
Equity-accounted investments	-	-	-	-	-	1,223	1,223
Other equity investments	25	-	-	-	-	12	37
Financial services receivables	-	-	4,212	4,180	-	-	4,212
Other financial assets	-	28	33	33	3	-	63
Current assets							
Trade receivables	-	-	2,319	2,319	-	0	2,319
Financial services receivables	-	-	2,688	2,688	-	-	2,688
Other financial assets	-	109	6,256	6,256	6	-	6,371
Marketable securities	-	-	98	98	-	-	98
Cash and cash equivalents	-	-	2,997	2,997	-	-	2,997
Noncurrent liabilities							
Financial liabilities	-	-	5,449	5,455	-	-	5,449
Other financial liabilities	-	39	2,289	2,289	6	-	2,333
Current liabilities							
Put Option and compensation rights granted to noncontrolling shareholders	-	-	1,827	1,827	-	-	1,827
Financial liabilities	-	-	5,366	5,366	-	-	5,366
Trade payables	-	-	2,969	2,969	-	-	2,969
Other financial liabilities	-	119	1,488	1,488	12	-	1,620

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS AS OF DECEMBER 31, 2017

€ million	MEASURED AT FAIR VALUE		MEASURED AT AMORTIZED COST		DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING	NOT ALLOCATED TO ANY IFRS 9 CATEGORY	BALANCE SHEET ITEM AT DEC. 31, 2017
	Recognized in other comprehensive income	Through profit and loss	Carrying amount	Fair value	Carrying amount	Carrying amount	
Noncurrent assets							
Equity-accounted investments	-	-	-	-	-	836	836
Other equity investments	13	-	-	-	-	36	50
Financial services receivables	-	-	3,805	3,805	-	-	3,805
Other financial assets	-	25	63	63	5	-	93
Current assets							
Trade receivables	-	-	2,863	2,863	-	185	3,048
Financial services receivables	-	-	2,319	2,319	-	-	2,319
Other financial assets	-	58	695	695	30	-	782
Marketable securities	-	-	51	51	-	-	51
Cash and cash equivalents	-	-	4,594	4,594	-	-	4,594
Noncurrent liabilities							
Financial liabilities	-	-	5,545	5,558	-	-	5,545
Other financial liabilities	-	51	2,187	2,187	1	-	2,239
Current liabilities							
Put Option and compensation rights granted to noncontrolling shareholders	-	-	3,795	3,811	-	-	3,795
Financial liabilities	-	-	3,426	3,426	-	-	3,426
Trade payables	-	-	3,507	3,507	-	-	3,507
Other financial liabilities	-	112	1,059	1,059	6	-	1,176

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS AS OF DECEMBER 31, 2016

€ million	MEASURED AT FAIR VALUE		MEASURED AT AMORTIZED COST		DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING	NOT ALLOCATED TO ANY IFRS 9 CATEGORY	BALANCE SHEET ITEM AT DEC. 31, 2016
	Recognized in other comprehensive income	Through profit and loss	Carrying amount	Fair value	Carrying amount	Carrying amount	
Noncurrent assets							
Equity-accounted investments	-	-	-	-	-	491	491
Other equity investments	10	-	-	-	-	56	65
Financial services receivables	-	-	3,237	3,237	-	-	3,237
Other financial assets	-	41	342	342	19	-	402
Current assets							
Trade receivables	-	-	2,708	2,708	-	152	2,860
Financial services receivables	-	-	2,112	2,112	-	-	2,112
Other financial assets	-	50	701	701	26	-	777
Marketable securities	-	-	84	84	-	-	84
Cash and cash equivalents	-	-	4,907	4,907	-	-	4,907
Noncurrent liabilities							
Financial liabilities	-	-	3,555	3,545	-	-	3,555
Other financial liabilities	-	84	2,019	2,019	3	-	2,105
Current liabilities							
Put Option and compensation rights granted to noncontrolling shareholders	-	-	3,849	3,861	-	-	3,849
Financial liabilities	-	-	5,485	5,485	-	-	5,485
Trade payables	-	-	3,362	3,362	-	-	3,362
Other financial liabilities	-	99	949	949	12	-	1,060

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS AS OF JANUARY 1, 2016

€ million	MEASURED AT FAIR VALUE		MEASURED AT AMORTIZED COST		DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING	NOT ALLOCATED TO ANY IFRS 9 CATEGORY	BALANCE SHEET ITEM AT JAN. 1, 2016
	Recognized in other comprehensive income	Through profit and loss	Carrying amount	Fair value	Carrying amount	Carrying amount	
Noncurrent assets							
Equity-accounted investments	-	-	-	-	-	479	479
Other equity investments	4	-	-	-	-	51	54
Financial services receivables	-	-	2,873	2,890	-	-	2,873
Other financial assets	-	79	431	431	1	-	512
Current assets							
Trade receivables	-	-	2,490	2,490	-	180	2,670
Financial services receivables	-	-	1,764	1,764	-	-	1,764
Other financial assets	-	124	539	539	17	-	679
Marketable securities	-	-	9	9	-	-	9
Cash and cash equivalents	-	-	6,575	6,575	-	-	6,575
Noncurrent liabilities							
Financial liabilities	-	-	4,899	4,930	-	-	4,899
Other financial liabilities	-	66	2,061	2,061	17	-	2,144
Current liabilities							
Put Option and compensation rights granted to noncontrolling shareholders	-	-	3,932	3,783	-	-	3,932
Financial liabilities	-	-	2,593	2,593	-	-	2,593
Trade payables	-	-	2,976	2,976	-	-	2,976
Other financial liabilities	-	72	3,279	3,279	32	-	3,382

Measurement and presentation of the fair values of financial instruments are based on a fair value hierarchy that reflects the significance of the inputs used for measurement and is classified as follows:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets and liabilities.
- Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. The fair value of financial instruments in Level 2 is determined based on the conditions prevailing at the end of the reporting period, such as interest rates or exchange rates, and using recognized models such as discounted cash flow or option pricing models.
- Level 3: Inputs for the asset or liability that are not based on observable market data (unobservable inputs). The fair value of put options and compensation rights granted to noncontrolling interest shareholders is calculated using a present value model based on the cash settlement determined by the Munich Regional Court in the award proceedings, including cash compensation, as well as the minimum statutory interest rate and a risk-adjusted discount rate for a matching maturity. For further information, please see the section "Litigation". The fair value of Level 3 receivables was measured by reference to individual expectations of losses; these are based to a significant extent on the Company's assumptions about counterparty credit quality.

FINANCIAL ASSETS AND LIABILITIES MEASURED AT FAIR VALUE BY LEVEL

The financial assets and liabilities measured at fair value as well as the derivative financial instruments included in hedging relationships are classified in Level 2 of the fair value hierarchy, except for other equity investments which are classified in Level 3. Other equity investments mainly comprise shares in unlisted companies for which there are no quoted market values as there is no active market. The fair value of these investments is calculated using discounted cash flow models. Due to the small carrying amount of these investments, a change in unobservable inputs would not result in a significantly lower or higher measurement of the instruments' fair value. Further information on these instruments can be found in note "Equity-accounted investments and other equity investments" in the subsection "Other equity investments". Dividends for investments derecognized in 2018 were received in the amount of €1 million as of December 31, 2018 (December 31, 2017: €1 million, December 31, 2016: €1 million).

FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES MEASURED AT AMORTIZED COST BY LEVEL

€ million	Dec. 31, 2018	Level 1	Level 2	Level 3
Fair value of financial assets measured at amortized cost				
Financial services receivables	6,869	-	-	6,869
Trade receivables	2,319	-	2,319	-
Other financial assets	6,289	0	6,288	0
Marketable securities	98	-	98	-
Cash and cash equivalents	2,997	2,997	-	-
Fair value of financial assets measured at amortized cost	18,572	2,997	8,706	6,869
Fair value of financial liabilities measured at amortized cost				
Put options and compensation rights granted to noncontrolling interest shareholders	1,827	-	-	1,827
Trade payables	2,969	-	2,969	-
Financial liabilities	10,821	-	10,817	3
Other financial liabilities	3,777	41	3,736	0
Fair value of financial liabilities measured at amortized cost	19,393	41	17,522	1,830

€ million	Dec. 31, 2017	Level 1	Level 2	Level 3
Fair value of financial assets measured at amortized cost				
Financial services receivables	6,123	-	-	6,123
Trade receivables	2,863	-	2,863	-
Other financial assets	758	-	757	-0
Marketable securities	51	-	51	-
Cash and cash equivalents	4,594	4,594	-	-
Fair value of financial assets measured at amortized cost	14,389	4,594	3,671	6,123
Fair value of financial liabilities measured at amortized cost				
Put options and compensation rights granted to noncontrolling interest shareholders	3,811	-	-	3,811
Trade payables	3,507	-	3,507	-
Financial liabilities	8,983	0	8,983	-
Other financial liabilities	3,246	23	3,223	-
Fair value of financial liabilities measured at amortized cost	19,547	23	15,713	3,811

€ million	Dec. 31, 2016	Level 1	Level 2	Level 3
Fair value of financial assets measured at amortized cost				
Financial services receivables	5,350	-	-	5,350
Trade receivables	2,708	-	2,708	-
Other financial assets	1,043	-	1,042	2
Marketable securities	84	-	84	-
Cash and cash equivalents	4,907	4,907	-	-
Fair value of financial assets measured at amortized cost	14,091	4,907	3,833	5,351
Fair value of financial liabilities measured at amortized cost				
Put options and compensation rights granted to noncontrolling interest shareholders	3,861	-	-	3,861
Trade payables	3,362	-	3,362	-
Financial liabilities	9,030	753	8,276	-
Other financial liabilities	2,968	23	2,945	-
Fair value of financial liabilities measured at amortized cost	19,220	776	14,583	3,861

€ million	Jan. 1, 2016	Level 1	Level 2	Level 3
Fair value of financial assets measured at amortized cost				
Financial services receivables	4,654	-	-	4,654
Trade receivables	2,490	-	2,490	-
Other financial assets	970	-	970	-0
Marketable securities	9	-	9	-
Cash and cash equivalents	6,575	6,575	-	-
Fair value of financial assets measured at amortized cost	14,698	6,575	3,469	4,654
Fair value of financial liabilities measured at amortized cost				
Put options and compensation rights granted to noncontrolling interest shareholders	3,783	-	-	3,783
Trade payables	2,976	-	2,976	-
Financial liabilities	7,522	1,279	6,244	-
Other financial liabilities	5,340	911	4,429	-
Fair value of financial liabilities measured at amortized cost	19,621	2,190	13,649	3,783

The transfers between the levels of the fair value hierarchy are reported at the respective reporting dates. There were no transfers between Level 1, Level 2, and Level 3 in fiscal year ending December 31, 2018.

OFFSETTING OF FINANCIAL ASSETS AND LIABILITIES

The following tables contain information about the effects of offsetting in the consolidated balance sheet and the potential financial effects of offsetting in the case of instruments that are subject to a legally enforceable master netting arrangement or a similar agreement. Except for January 1, 2016, the gross amounts and liabilities correspond to the net amount, since these were not offset in the consolidated balance sheet.

€ million	AMOUNTS THAT ARE NOT SET OFF IN THE CONSOLIDATED BALANCE SHEET			Net amount at Dec. 31, 2018
	Net amounts of financial assets presented in the balance sheet	Financial instruments	Collateral received	
Derivatives	146	-62	-	84
Financial services receivables	6,900	-	-	6,900
Trade receivables	2,319	-	-	2,319
Marketable securities	98	-	-	98
Cash and cash equivalents	2,997	-	-	2,997
Other financial assets	6,289	-	-	6,289

€ million	AMOUNTS THAT ARE NOT SET OFF IN THE CONSOLIDATED BALANCE SHEET			Net amount at Dec. 31, 2017
	Net amounts of financial assets presented in the balance sheet	Financial instruments	Collateral received	
Derivatives	118	-17	-	101
Financial services receivables	6,123	-	-	6,123
Trade receivables	2,863	-	-1	2,862
Marketable securities	51	-	-	51
Cash and cash equivalents	4,594	-	-	4,594
Other financial assets	758	-	-	758

€ million	AMOUNTS THAT ARE NOT SET OFF IN THE CONSOLIDATED BALANCE SHEET			Net amount at Dec. 31, 2016
	Net amounts of financial assets presented in the balance sheet	Financial instruments	Collateral received	
Derivatives	136	-24	-	112
Financial services receivables	5,349	-	-	5,349
Trade receivables	2,708	-	-7	2,701
Marketable securities	84	-	-	84
Cash and cash equivalents	4,907	-	-	4,907
Other financial assets	1,043	-	-	1,043

€ million	Gross amounts of recognized financial assets	Gross amounts of recognized financial liabilities set off in the balance sheet	AMOUNTS THAT ARE NOT SET OFF IN THE CONSOLIDATED BALANCE SHEET			Net amount at Jan. 1, 2016
			Net amounts of financial assets presented in the balance sheet	Financial instruments	Collateral received	
Derivatives	221	-	221	-36	-	185
Financial services receivables	4,637	-	4,637	-	-	4,637
Trade receivables	2,490	-14	2,476	-	-231	2,245
Marketable securities	9	-	9	-	-	9
Cash and cash equivalents	6,575	-	6,575	-	-	6,575
Other financial assets	970	-	970	-	-	970

€ million	Net amounts of financial liabilities presented in the balance sheet	AMOUNTS THAT ARE NOT SET OFF IN THE CONSOLIDATED BALANCE SHEET		Net amount at Dec. 31, 2018
		Financial instruments	Collateral pledged	
Put options and compensation rights granted to noncontrolling interest shareholders	1,827	-	-	1,827
Derivatives	176	-62	-	114
Financial liabilities	10,814	-	-	10,814
Trade payables	2,969	-	-	2,969
Other financial liabilities	3,777	-	-	3,777

€ million	Net amounts of financial liabilities presented in the balance sheet	AMOUNTS THAT ARE NOT SET OFF IN THE CONSOLIDATED BALANCE SHEET		Net amount at Dec. 31, 2017
		Financial instruments	Collateral pledged	
Put options and compensation rights granted to noncontrolling interest shareholders	3,795	-	-	3,795
Derivatives	169	-17	-	153
Financial liabilities	8,971	-	-	8,971
Trade payables	3,507	-	-	3,507
Other financial liabilities	3,246	-	-	3,246

€ million	Net amounts of financial liabilities presented in the balance sheet	AMOUNTS THAT ARE NOT SET OFF IN THE CONSOLIDATED BALANCE SHEET		Net amount at Dec. 31, 2016
		Financial instruments	Collateral pledged	
Put options and compensation rights granted to noncontrolling interest shareholders	3,849	-	-	3,849
Derivatives	197	-24	-	173
Financial liabilities	9,040	-	-	9,040
Trade payables	3,362	-	-	3,362
Other financial liabilities	2,968	-	-	2,968

€ million	AMOUNTS THAT ARE NOT SET OFF IN THE CONSOLIDATED BALANCE SHEET					Net amount at Jan. 1, 2016
	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	Financial instruments	Collateral pledged	
Put options and compensation rights granted to noncontrolling interest shareholders	3,932	-	3,932	-	-	3,932
Derivatives	186	-	186	-36	-	150
Financial liabilities	7,492	-	7,492	-	-	7,492
Trade payables	2,976	-14	2,962	-	-	2,962
Other financial liabilities	5,340	-	5,340	-	-	5,340

The “Financial instruments” column shows the amounts that are subject to a master netting arrangement but were not set off because they do not meet the criteria for offsetting in the consolidated balance sheet. The “Collateral received” and “Collateral pledged” columns show the amounts of cash collateral and collateral in the form of financial instruments received and pledged for the total assets and liabilities that do not meet the criteria for offsetting in the consolidated balance sheet.

Other disclosures

33. Consolidated cash flow statement

Cash flows are presented in the consolidated cash flow statement classified into cash flows from operating activities, investing activities and financing activities.

The change in cash and cash equivalents attributable to changes in exchange rates is presented in a separate line item. Cash flow from operating activities is reported using the indirect method. Earnings before tax are adjusted to eliminate noncash expenditures (mainly depreciation, amortization and impairment losses) and income, as well as gains and losses from asset disposals. Other noncash expense/income results mainly from measurement effects in connection with financial instruments and from fair value changes relating to derivatives (see section entitled “Other financial result”). This results in cash flows from operating activities after accounting for changes in working capital, which also include changes in lease assets and in financial services receivables.

Investing activities include additions to property, plant and equipment and equity investments, additions to capitalized development costs and investments in securities and loans. Payments received from these positions are offset. Payments from the disposal of subsidiaries are reported net of cash disposed.

Financing activities include outflows of funds from dividend payments, profit transfers to and loss absorptions by Volkswagen AG and repayment of bonds, inflows from capital increases and issuance of bonds, and changes in other financial liabilities.

Cash and cash equivalents presented in the statement of cash flows include bank balances and highly liquid financial investments of a temporary nature that are exposed to no more than minor risks of fluctuation in value. Current account overdraft facilities are not presented as a component of cash and cash equivalents in the statement of cash flows, but are reported in cash flows from financing activities if they are used.

In 2018, cash flows from operating activities include interest received amounting to €400 million (in 2017: €368 million, in 2016: €330 million) and interest paid amounting to €275 million (in 2017: €284 million, in 2016: €261 million). Cash flows from operating activities also include dividend payments received from joint ventures and associates of €54 million as of December 31, 2018 (December 31, 2017: €8 million, December 31, 2016: €4 million). Dividends received from financial investments and other equity activities amounted to €0 million as of December 31, 2018 (December 31, 2017: €2 million, December 31, 2016: €2 million).

Based on the current domination and profit and loss transfer agreement between Volkswagen AG and TRATON SE, the 2017 loss of €28 million was transferred in 2018 (the 2016 loss of €32 million was transferred in 2017, the 2015 profit of €2,365 million was transferred in 2016).

The reconciliation shows the movement in financial liabilities, separated into changes from cash-effective operations and non-cash changes.

€ million	Jan. 1, 2016	Cash-effective operations – continuing operations	Cash-effective operations – discontinued operations	Non-cash changes		Dec. 31, 2016
				Foreign exchange differences	Other changes	
Bonds	3,790	-354	-	-74	1	3,364
Other third-party borrowings	3,698	2,001	-9	-17	-1	5,672
Finance lease liabilities	5	-2	-0	0	2	4
Total third-party borrowings	7,492	1,644	-9	-90	2	9,040
Put options and compensating rights of minority shareholders	3,932	-137	-	-	53	3,849
Other financial assets and liabilities	-68	99	0	36	24	92
Financial assets and liabilities in financing activities	11,356	1,607	-9	-54	80	12,980

€ million	Dec. 31, 2016	Cash-effective operations – continuing operations	Cash-effective operations – discontinued operations	Non-cash changes		Dec. 31, 2017
				Foreign exchange differences	Other changes	
Bonds	3,364	174	-	-89	-0	3,448
Other third-party borrowings	5,672	15	-2	-184	20	5,520
Finance lease liabilities	4	-2	-0	-0	1	3
Total third-party borrowings	9,040	187	-2	-273	20	8,971
Put options and compensating rights of minority shareholders	3,849	-118	-	-	64	3,795
Other financial assets and liabilities	92	-11	-2	-4	5	81
Financial assets and liabilities in financing activities	12,980	59	-4	-277	89	12,847

€ million	Dec. 31, 2017	Cash-effective operations – continuing operations	Cash-effective operations – discontinued operations	Non-cash changes			Dec. 31, 2018
				Foreign exchange differences	Changes in consolidated group	Other changes	
Bonds	3,448	1,442	-	-70	-	-	4,820
Other third-party borrowings	5,520	-126	-6	-152	757	-0	5,993
Finance lease liabilities	3	1	-0	-0	-	-3	1
Total third-party borrowings	8,971	1,317	-6	-223	757	-3	10,814
Put options and compensating rights of minority shareholders	3,795	-2,132	-	-	-	164	1,827
Other financial assets and liabilities	81	-72	-0	9	-	-	18
Financial assets and liabilities in financing activities	12,847	-886	-6	-214	757	161	12,659

34. Financial risk management and financial instruments

1. HEDGING GUIDELINES AND FINANCIAL RISK MANAGEMENT PRINCIPLES

Because of the TRATON GROUP's business activities and international focus, its assets, liabilities, and forecast transactions are exposed to market, credit, and liquidity risk.

The Group's risk positions are hedged externally with banks within defined risk limits. Subgroups have their own risk management structures. MAN's market risks are reported regularly to the Executive and Supervisory Boards. Compliance with the guidelines is reviewed by the Internal Audit function. Scania's financial risk management is regulated by a Finance Policy adopted by Scania's Board of Directors. Risks are managed primarily at corporate level by Scania's treasury unit. On a daily basis, the corporate treasury unit measures the risks of outstanding positions, which are managed within established limits in compliance with the Finance Policy as well as TRATON GROUP Treasury Framework Policy.

2. CREDIT AND DEFAULT RISK

The TRATON GROUP is exposed to credit risk because of its business operations and certain financing activities.

From the Group's perspective, credit risk entails the risk that a party to a financial instrument will fail to meet its contractual obligations and thus cause a financial loss for the Group. Credit risk comprises both the direct default risk and the risk of a deterioration in credit quality. Credit risk related to customer commitments is managed, within established limits, on a decentralized basis by means of local credit assessments. Decisions on major credit commitments are made in subgroup credit committees.

The maximum credit risk is reflected by the carrying amount of the financial assets recognized in the consolidated balance sheet; see note "Additional Financial Instruments Disclosures in accordance with IFRS 7". The maximum potential credit and default risk for trade receivables is reduced by collateral held and other credit enhancements in the amount of €190 million as of December 31, 2018 (December 31, 2017: €312 million, December 31, 2016: €226 million, January 1, 2016: €232 million), which represents the total estimated fair value. Collateral comprises assets transferred as security as well as credit insurance and guarantees. Collateral relating to receivables from the financing business mainly exists in the form of the possibility of repossessing the financed assets

The risk arising from nonderivative financial instruments is also accounted for by recognizing bad debt losses. Material individual receivables, as well as receivables whose collectability is in doubt, are measured on an item-by-item basis. Significant cash and capital investments, as well as derivatives, are only entered into with national and international banks as well as with the Group's ultimate parent, Volkswagen AG. Financial guarantees issued also give rise to credit and default risk. The maximum potential credit and default risk is calculated from the amount the TRATON GROUP would have to pay if claims were to be asserted under the guarantees. The corresponding amounts are presented in the Liquidity risk section.

The TRATON GROUP has largely decentralized liquidity management at MAN and Scania. The financial institutions and investment forms are carefully selected when investing cash funds, while a limit system ensures diversification. In line with the nature of TRATON GROUP's inclusion in the central financial management of the Volkswagen Group agreed with Volkswagen AG, a significant portion of TRATON GROUP's financial assets is concentrated on a single partner, Volkswagen AG. Volkswagen AG's high credit rating and the risk management mechanisms installed limit the credit risks from the financial assets allocated at Volkswagen AG. Other than this, there were no material concentrations of credit risk in the TRATON GROUP.

RECONCILIATION OF LOSS ALLOWANCE FOR FINANCIAL ASSETS AT AMORTIZED COST (INCLUDING CONTRACT ASSETS AND LEASE RECEIVABLES)

€ million	General Approach				Simplified approach	Total
	12 month expected credit loss (Stage 1)	Life time expected credit loss – not impaired (Stage 2)	Life time expected credit loss - impaired (Stage 3)			
Loss allowance as at Jan. 1, 2016	11	6	13	251	281	
Transfer to Level 1	0	-2	-1	-	-2	
Transfer to Level 2	-3	7	-1	-	3	
Transfer to Level 3	-1	-1	7	-	5	
Write-offs	-	-	-2	-20	-22	
Reversals	-7	-3	-7	-52	-68	
New financial assets originated or purchased	8	-	-	60	68	
Changes in models/ risk parameters	-	-	-	8	8	
Changes from consolidation	0	0	0	0	0	
Other changes (mainly foreign exchange rate effects)	0	1	5	17	23	
Loss allowance as at Dec. 31, 2016	8	8	14	266	296	
Loss allowance as at Jan. 1, 2017	8	8	14	266	296	
Transfer to Level 1	0	-3	0	-	-3	
Transfer to Level 2	-7	9	0	-	2	
Transfer to Level 3	-3	-1	10	-	6	
Write-offs	-	-	-3	-29	-31	
Reversals	-5	-3	-5	-63	-75	
New financial assets originated or purchased	13	-	-	57	70	
Changes in models/ risk parameters	-	-	-	11	11	
Changes from consolidation	0	0	0	0	0	
Other changes (mainly foreign exchange rate effects)	0	-1	4	8	11	
Loss allowance as at Dec. 31, 2017	7	10	19	250	286	
Loss allowance as at Jan. 1, 2018	7	10	19	250	286	
Transfer to Level 1	0	-2	-1	-	-2	
Transfer to Level 2	-2	3	0	-	1	
Transfer to Level 3	-2	-5	18	-	12	
Write-offs	0	0	-1	-25	-27	
Reversals	-3	-2	-6	-67	-78	
New financial assets originated or purchased	10	0	0	17	27	
Changes in models/ risk parameters	0	0	0	42	42	
Changes from consolidation	0	0	0	-53	-54	
Other changes (mainly foreign exchange rate effects)	-2	0	1	14	12	
Loss allowance as at Dec. 31, 2018	7	5	30	178	219	

The valuation allowances mainly relate to the credit risks associated with trade receivables and receivables from the financial services business.

€ million	General Approach			Simplified approach	Total
	12 month expected credit loss (Stage 1)	Life time expected credit loss – not impaired (Stage 2)	Life time expected credit loss - impaired (Stage 3)		
Gross carrying amount as at Jan. 1, 2016	9,482	112	39	5,511	15,144
Transfer to Level 1	20	-18	-2		-
Transfer to Level 2	-68	70	-3		-1
Transfer to Level 3	-11	-14	24		-1
Changes due to modifications that did not result in derecognition	-	-	-	-	-
Changes (New or originated financial assets, derecognitions)	-1,334	-3	-13	835	-515
Changes from consolidation	8	-	-	1	9
Foreign exchange movements	20	12	5	-134	-97
Gross carrying amount as at Dec. 31, 2016	8,118	158	51	6,213	14,539
Gross carrying amount as at Jan. 1, 2017	8,118	158	51	6,213	14,539
Transfer to Level 1	28	-27	-1		-
Transfer to Level 2	-38	39	-1		-
Transfer to Level 3	-11	-11	22		-
Changes due to modifications that did not result in derecognition	-	-	-	-	-
Changes (New or originated financial assets, derecognitions)	-304	-	-11	965	650
Changes from consolidation	-5	-	-	3	-2
Foreign exchange movements	-152	-12	-4	-162	-330
Gross carrying amount as at Dec. 31, 2017	7,638	147	56	7,019	14,859
Gross carrying amount as at Jan. 1, 2018	7,638	147	56	7,019	14,859
Transfer to Level 1	25	-23	-2	-	-
Transfer to Level 2	-45	46	-1	-	-
Transfer to Level 3	-44	-33	77	-	-
Changes due to modifications that did not result in derecognition	-	-	-	-	-
Changes (New or originated financial assets, derecognitions)	4,705	-12	-9	682	5,367
Changes from consolidation	193	0	0	-981	-788
Foreign exchange and other movements	-145	-9	-8	-152	-313
Gross carrying amount as at Dec. 31, 2018	12,327	116	113	6,568	19,125

Gross Carrying Amounts of Financial Assets by Rating Category

€ million	Life time expected credit			Simplified approach	Dec. 31, 2018
	12 month expected credit loss (Stage 1)	loss – not impaired (Stage 2)	loss - impaired (Stage 3)		
Rating Grade					
Credit risk rating Grade 1	12,327	-	-	5,882	18,209
Credit risk rating Grade 2	-	116	-	517	633
Credit risk rating Grade 3	-	-	113	166	280
Total	12,327	116	113	6,565	19,122

€ million	Life time expected credit			Simplified approach	Dec. 31, 2017
	12 month expected credit loss (Stage 1)	loss – not impaired (Stage 2)	loss - impaired (Stage 3)		
Rating Grade					
Credit risk rating Grade 1	7,638	-	-	5,587	13,225
Credit risk rating Grade 2	-	147	-	980	1,126
Credit risk rating Grade 3	-	-	56	451	508
Total	7,638	147	56	7,018	14,859

€ million	Life time expected credit			Simplified approach	Dec. 31, 2016
	12 month expected credit loss (Stage 1)	loss – not impaired (Stage 2)	loss - impaired (Stage 3)		
Rating Grade					
Credit risk rating Grade 1	8,118	-	-	4,888	13,006
Credit risk rating Grade 2	-	158	-	836	994
Credit risk rating Grade 3	-	-	51	489	540
Total	8,118	158	51	6,213	14,539

Credit risk rating grade 1 comprises financial instruments which are considered to be not at risk of default. Rating grade 2 refers to financial instruments under an intensified loan management. Rating grade 3 comprises impaired financial instruments.

Collateral that was accepted for financial assets in the current fiscal year was recognized in the consolidated balance sheet in the amount of €0 million as of December 31, 2018 (December 31, 2017: €0 million, December 31, 2016: €12 million, January 1, 2016: €8 million). This collateral mainly relates to vehicles.

3. LIQUIDITY RISK

Liquidity risk describes the risk that the TRATON GROUP will have difficulty in meeting its obligations associated with financial liabilities or that it can only procure liquidity at a higher price.

To counter this risk, cash inflows and outflows and due dates are continuously monitored and managed. Cash requirements are primarily met by our operating business and by external financing arrangements. As a result, there were no material concentrations of risk in the past fiscal year.

The solvency and liquidity of TRATON GROUP are ensured at all times by rolling liquidity planning, a liquidity reserve in the form of cash, confirmed credit lines and the issuance of securities on the international money and capital markets. For Scania Financial Services, there shall be dedicated funding to cover the estimated funding demands during the next six months. There shall also always be borrowings that safeguard the existing portfolio.

There are also committed credit lines with financial institutions as well as with Volkswagen AG. For TRATON GROUP, unused credit lines from banks and Volkswagen AG amounting to €4.2 billion as of December 31, 2018 (December 31, 2017: €4.6 billion, December 31, 2016: €5.1 billion, January 1, 2016: €6.2 billion) were available as a liquidity reserve.

Local cash funds in certain countries (e.g. Brazil, China, India, and South Korea) are only available to the Group for cross-border transactions subject to exchange controls. There are no significant restrictions over and above these.

The following table shows how the cash flows relating to liabilities, derivatives, and contingent liabilities affect the TRATON GROUP's liquidity position:

MATURITY OVERVIEW ¹	2018			2017		
	REMAINING			REMAINING		
	CONTRACTUAL MATURITIES			CONTRACTUAL MATURITIES		
€ million	2019	2020–2023	>2023	2018	2019–2022	>2022
Financial liabilities ¹	5,416	5,417	78	3,901	5,899	23
Trade payables ¹	2,969	0	0	3,507	0	0
Other financial liabilities ^{1,2}	1,488	2,160	109	1,061	2,156	49
Derivatives	4,735	2,501	10	4,814	61	7
Financial Guarantees	26	-	-	29	-	-
	14,634	10,079	197	13,313	8,116	79

MATURITY OVERVIEW ¹	2016			JAN. 1, 2016		
	REMAINING			REMAINING		
	CONTRACTUAL MATURITIES			CONTRACTUAL MATURITIES		
€ million	2017	2018–2021	>2021	2016	2017–2020	>2020
Financial liabilities ¹	5,575	3,605	12	2,692	4,689	261
Trade payables ¹	3,362	0	0	2,977	0	-
Other financial liabilities ^{1,2}	949	2,000	39	3,279	2,056	29
Derivatives	4,583	91	1	4,440	83	8
Financial Guarantees	9	-	-	11	-	-
	14,477	5,696	51	13,398	6,829	297

- 1 The following methodology was applied in calculating the amounts:
 - If no contractual maturity has been agreed, the liability refers to the earliest maturity date.
 - Variable-rate interest payments reflect the conditions at the end of the reporting period.
 - It is assumed that the cash outflows will not occur earlier than shown.
- 2 The undiscounted maximum cash flows from buyback obligations are recognized as a financial liability.

Derivatives comprise both cash flows from derivative financial instruments with negative fair values and cash flows from derivatives with positive fair values for which gross settlement has been agreed. Derivatives entered into through offsetting transactions are also accounted for as cash outflows. The cash outflows from derivatives for which gross settlement has been agreed are matched in part by cash inflows. These cash inflows are not reported in the maturity analysis. If these cash inflows were also recognized, the cash outflows presented would be substantially lower. This applies in particular also if hedges have been closed with offsetting transactions.

The cash outflows from irrevocable credit commitments are presented in section entitled "Other financial obligations", classified by contractual maturities.

4. MARKET RISK

4.1 HEDGING POLICY AND FINANCIAL DERIVATIVES

During the course of its general business activities, the TRATON GROUP is exposed to foreign currency, interest rate and commodity price risks. Corporate policy is to continuously monitor such risks through the TRATON risk management systems; actions to mitigate those risks are then taken by the treasury departments at MAN and Scania. There were no significant risk concentrations in the past fiscal year.

4.2 MARKET RISK IN THE TRATON GROUP

4.2.1 FOREIGN CURRENCY RISK

Currency Risk is the risk of negative effects on earnings and balance sheet items denominated in foreign currency, due to currency movements. Foreign currency risk in the TRATON GROUP is attributable to investments, financing measures and operating activities. Currency forwards, currency options, currency swaps and cross-currency swaps are used to limit risks to future cash flows.

Within MAN, all firm customer orders (firm commitments), the Group's own purchases, receivables, and liabilities denominated in foreign currencies are hedged as a matter of principle. MAN also enters into hedges for forecast foreign currency revenue from the series production business within defined hedging limits that are specific to MAN's business, and (on a case-by-case basis) for highly probable customer projects. Hedge accounting is not required to be applied in these cases, but it is applied for the most significant forecasted foreign currency revenues. Companies that apply hedge accounting choose the hedge ratio of the forecasted revenues based on their experience to avoid inefficiencies. In current or prior reporting periods no inefficiencies appeared. Smaller entities mostly do not apply hedge accounting. Currencies that are highly correlated with the euro, such as the Danish krone, as well as equity investments or equity-equivalent loans, are only hedged in individual instances. According to Scania's financial policy, Scania's Management may hedge future currency flows with a hedging period varying between 0 and 12 months. For maturities over 12 months, the decision is made by the Board of Directors. Hedge accounting is not used in these cases.

Assets at Scania Financial Services should be financed by liabilities in the same currencies generally. There are no fair value hedges.

Hedging transactions entered into as part of foreign currency risk management were primarily in UK pound sterling, U.S. dollars and Brazilian Real.

The non-derivative and derivative financial instruments existing at the end of the reporting period were measured in a hypothetical scenario as part of a sensitivity analysis. The effects of a 10% increase/decrease in a currency per exchange rate were as follows:

€ million	Dec. 31, 2018				Dec. 31, 2017			
	Equity		EARNINGS AFTER TAX		Equity		EARNINGS AFTER TAX	
	+10%	-10%	+10%	-10%	+10%	-10%	+10%	-10%
Exchange rate								
EUR/SEK	-9	9	40	-40	1	-1	31	-31
EUR/DKK	5	-5	0	0	4	-4	23	-23
BRL/USD	2	-2	-11	11	-16	16	-4	4
EUR/USD	-1	1	15	-15	3	-3	15	-15
EUR/GBP	12	-12	4	-4	13	-13	2	-2
EUR/BRL	0	0	-11	11	-	-	-8	8
MXN/USD	8	-8	0	0	-1	1	-4	4
GBP/SEK	0	0	-4	4	-	-	-5	5

€ million	Dec. 31, 2016				Jan. 1, 2016	
	Equity		EARNINGS AFTER TAX		Equity	
	+10%	-10%	+10%	-10%	+10%	-10%
Exchange rate						
EUR/SEK	1	-1	16	-16	1	-1
EUR/DKK	5	-5	21	-21	4	-4
BRL/USD	-20	20	-5	5	5	-5
EUR/USD	8	-8	14	-14	7	-7
EUR/GBP	15	-15	3	-3	16	-16
EUR/BRL	0	-0	-12	12	-0	0
MXN/USD	-	-	-5	5	-	-
GBP/SEK	-	-	-7	7	-	-

Derivatives that are included in hedge accounting only refer to foreign currency risk. The following tables present details on these derivatives:

THE AMOUNT, TIMING AND UNCERTAINTY OF CASH FLOWS

€ million	Maturity			Total nominal volume	Average Hedging FX Rate
	< 1 year	1-5 years	> 5 years		
2018					
Foreign currency risk:					
Forward exchange contracts BRL/USD	140	140	-	280	2.7 – 4.2
Forward exchange contracts EUR/GBP	178	-	-	178	0.9 – 0.9
Forward exchange contracts EUR/CHF	54	10	-	64	1.1 – 1.2
Forward exchange contracts EUR/DKK	48	-	-	48	7.4 – 7.5
Forward exchange contracts EUR/ZAR	44	-	-	44	15.6 – 17.5
Forward exchange contracts EUR/USD	36	-	-	36	1.1 – 1.2
Forward exchange contracts EUR/NOK	29	-	-	29	9.4 – 9.7
Forward exchange contracts EUR/CNY	23	-	-	23	7.8 – 8.0
Forward exchange contracts (other currencies)	58	0	-	58	n/a
2017					
Foreign currency risk:					
Forward exchange contracts BRL/USD	121	96	-	216	3.2 – 5.5
Forward exchange contracts EUR/GBP	197	-	-	197	0.9 – 0.9
Forward exchange contracts EUR/CHF	71	2	-	74	1.1 – 1.2
Forward exchange contracts CHF/EUR	54	13	-	67	1.1 – 1.2
Forward exchange contracts EUR/USD	45	8	-	54	1.1 – 1.3
Forward exchange contracts EUR/DKK	54	-	-	54	7.4 – 7.4
Forward exchange contracts CHF/USD	29	12	-	41	0.9 – 1.0
Forward exchange contracts EUR/ZAR	41	-	-	41	16.1 – 17.2
Forward exchange contracts EUR/CNY	34	2	-	36	7.8 – 8.6
Forward exchange contracts USD/MXN	24	-	-	24	18.4 – 20.7
Forward exchange contracts (other currencies)	93	5	-	97	n/a
2016					
Foreign currency risk:					
Forward exchange contracts BRL/USD	130	103	-	233	3.3 – 5.5
Forward exchange contracts EUR/GBP	208	-	-	208	0.8 – 0.9
Forward exchange contracts EUR/USD	85	29	-	115	1.0 – 1.3
Forward exchange contracts CHF/EUR	72	19	-	90	1.0 – 1.2
Forward exchange contracts EUR/CHF	69	2	-	71	1.0 – 1.2
Forward exchange contracts EUR/DKK	65	-	-	65	7.4 – 7.5
Forward exchange contracts DKK/USD	17	13	-	29	6.6 – 7.0
Forward exchange contracts EUR/NOK	21	-	-	21	9.1 – 9.5
Forward exchange contracts JPY/EUR	14	6	-	20	112.0 – 135.7
Forward exchange contracts EUR/ZAR	21	-	-	21	15.4 – 16.8
Forward exchange contracts (other currencies)	128	3	-	132	n/a

ITEMS DESIGNATED AS HEDGING INSTRUMENTS

€ million	2018	2017	2016
Foreign currency risk:			
Fair Value change to determine hedge ineffectiveness	-23	11	20
Carrying amount of Other financial assets	9	35	44
Carrying amount of Other financial liabilities	18	7	15
Nominal amount	760	721	874

ITEMS DESIGNATED AS HEDGED ITEMS

€ million	2018	2017	2016
Foreign currency risk:			
Fair value change to determine hedge ineffectiveness	23	-11	-20
Carrying amount of Cash Flow Hedge reserve: Continued hedges	-23	11	20

GAINS AND LOSSES FROM CASH FLOW HEDGES

€ million	2018	2017	2016
Foreign currency risk:			
Cash flow hedges			
Hedging gains or losses recognized in OCI	-16	25	60
Amount reclassified from the cash flow hedge reserve to profit or loss because the hedged item has affected profit or loss	-4	-30	-50
Cash flow hedges (Cost of hedging)			
Hedging gains or losses recognized in OCI	-2	-4	17
Amount reclassified from the cash flow hedge reserve to profit or loss because the hedged item has affected profit or loss	3	8	-11

RECONCILIATION OF CASH FLOW HEDGE RESERVE

€ million	2018	2017	2016
Balance as of Jan. 1	11	20	2
Hedging gains or losses recognized in OCI	-20	30	86
Reclassification for basis adjustments	-	-	-
Reclassification to profit or loss			
because hedged future cash flows are no longer expected to occur	-	-	-
because the hedged item has affected profit or loss	-12	-37	-68
Other changes (foreign exchange differences)	-2	-2	1
Balance as of Dec. 31	-23	11	20

RECONCILIATION OF COST OF HEDGING RESERVE: FORWARD CONTRACTS AND CCBS

€ million	2018	2017	2016
Balance as of Jan. 1	12	9	-
Hedging gains or losses recognized in OCI for hedge transaction related hedge items	-3	-4	18
Reclassification for basis adjustments for hedge transaction related hedge items	-	-	-
Reclassification to profit or loss			
Reclassification to profit or loss because hedged future cash flows are no longer expected to occur for hedge transaction related hedge items	-	-	-
Reclassification to profit or loss because the hedged item has affected profit or loss for hedge transaction related hedge items	5	10	-10
Other changes (foreign exchange differences)	-1	-3	1
Balance as of Dec. 31	13	12	9

4.2.2 INTEREST RATE RISK

Interest Rate Risk is the risk of negative effects on interest income and expenses due to movements in interest rates. Financial instruments that are sensitive to movements in interest rates are exposed to interest rate risk in the form of fair value risk or cash flow risk. Fair value risk is a measure of the sensitivity of the carrying amount of a financial instrument to changes in market rates of interest. Cash flow risk describes the exposure to variability in future interest payments in response to interest rate movements. Interest rate swaps and cross-currency swaps are used to achieve the risk management strategy. Hedge accounting is not applied.

The TRATON GROUP is exposed to interest rate risk from interest rate-sensitive assets and liabilities. Intragroup financing arrangements are mainly structured to match the maturities of their refinancing. In the same way, Scania's Financial Services hedges interest rate risks by matching interest rates and maturity periods of its assets and liabilities. Departures from the Group standards are subject to centrally defined limits and monitored on an ongoing basis.

Interest rate risk within the meaning of IFRS 7 is calculated for the companies using sensitivity analyses. Any earnings effects of the interest rate sensitivity would be recognized exclusively in profit for the period.

If market interest rates had been 100 bps higher as of December 31, 2018, earnings after tax would have been €34 million higher as of December 31, 2018 (December 31, 2017: €39 million, December 31, 2016: €23 million). If market interest rates had been 100 bps lower as of December 31, 2018, earnings after tax would have been €34 million lower (December 31, 2017: €41 million, December 31, 2016: €24 million).

4.2.3 COMMODITY PRICE RISK

Commodity price risk in the TRATON GROUP primarily results from price fluctuations and the availability of commodities.

The commodity price risks are regularly captured centrally and hedged externally based on defined risk limits, including considerations as to whether changes in commodity prices will translate into higher prices of the products sold, to the extent that there are liquid markets. Cash-settled commodity futures are used to mitigate these risks. There were no material concentrations of risk in the past fiscal year. Cash-settled commodity futures had been entered into at the end of the reporting period to hedge commodity price risks relating to gas, steel, nonferrous metals, precious metals, and rubber with a fair value of €-1 million (December 31, 2017: €0 million, December 31, 2016: €1 million). Hedge accounting is not used at present.

The maximum remaining term of hedges of forecast transactions was 18 months at the end of fiscal 2018. A hypothetical 10% increase/decrease in commodity prices is assumed, in line with the sensitivity analysis of currency risks. The potential effect on profit for the period of the change in the fair value of the commodity futures is €2 million as of December 31, 2018 (December 31, 2017: €1 million, December 31, 2016: €1 million) for +10% or €-2 million as of December 31, 2018 (December 31, 2017: €-1 million, December 31, 2016: €-1 million) for -10%, respectively.

35. Capital management

The Group's capital management ensures that its goals and strategies can be achieved in the interests of shareholders, employees and other stakeholders. In particular, management focuses on generating the minimum return on invested assets in the Industrial Business that is required by the capital markets, and on increasing the return on equity in Financial Services. In the process, it aims overall to achieve the highest possible growth in the value of the Group and its divisions for the benefit of all the Company's stakeholder groups.

In order to maximize the use of resources in the Industrial Business and to measure the success of this, we have for a number of years been using a value-based management system, with return on investment (ROI) as a relative indicator.

The return on investment (ROI) is defined as the return on invested capital for a particular period based on the operating profit after tax. The invested capital is calculated as total operating assets reported in the balance sheet (property, plant and equipment, intangible assets (excluding goodwill), investment property, lease assets, inventories, trade receivables and certain other assets) less non-interest bearing liabilities (trade payables and advanced payments received). The average invested capital is defined as the sum of invested capital at the beginning of the reporting period and the invested capital at the end of the reporting period divided by two. Operating profit after tax is calculated by deducting average taxes of 30.0% from operating profit.

If the return on investment exceeds the market cost of capital, there is an increase in the value of the invested capital. In the Group, a minimum required rate of return on invested capital of 9% is defined, which applies to both the business units and the individual products and product lines. Our goal of generating a sustained return on investment of over 15% is anchored in Strategy 2025. The return on investment therefore serves as a consistent target in operational and strategic management and is used to measure target attainment for the Industrial Business, the individual business units and products. The return on investment achieved for the Industrial Business in the reporting period was 8.56%.

Due to the specific features of Financial Services, its management focuses on return on equity, a special target linked to invested capital. This measure is calculated as the ratio of earnings before tax to average equity. Average equity is calculated from the balance at the beginning and the end of the reporting period. In addition, the goals of Financial Services are to meet the banking supervisory authorities' regulatory capital requirements and to procure equity for the growth planned in the coming fiscal years. To ensure compliance with prudential requirements at all times, a planning procedure integrated into internal reporting has been put in place at Financial Services, allowing the required equity to be continuously determined based on actual and expected business performance. In the reporting period, this again ensured that regulatory minimum capital requirements were always met both at Group level and at the level of subordinate companies' individual, specific capital requirements.

The return on investment in the Industrial Business as well as the return on equity and the equity ratio in Financial Services are shown in the following table:

€ million	2018	2017	2016
Industrial Business			
Operating profit after tax	942	958	417
Invested capital (average)	11,013	10,642	10,475
Return on investment (ROI) in %	8.56%	9.00%	3.98%
Financial Services			
Earnings before tax	148	112	106
Average equity	772	702	657
Return on equity before tax in %	19.22%	15.93%	16.11%
Equity ratio in %	8.91%	8.89%	9.03%

36. Contingencies and commitments

€ million	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Liabilities under buyback guarantees	2,149	1,903	1,722	1,623
Liabilities under guarantees*	205	32	57	63
Assets pledged as security for third-party liabilities	-	-	-	-
Other contingent liabilities**	936	926	223	166
	3,290	2,861	2,002	1,851

*In addition, for liabilities under guarantees of discontinued operations were €2 million as of December 31, 2017, €5 million as of December 31, 2016 and €2 million as of January 1, 2016.

**Discontinued operations had other contingent liabilities of €6 million as of December 31, 2017, €6 million as of December 31, 2016 and €0 million as of January 1, 2016. All discontinued operations were deconsolidated in 2018.

The contingent liabilities under guarantees relate mainly to guarantees issued for trade obligations of investees, former investees, and other companies. They include financial guarantees amounting to €39 million as of December 31, 2018 (December 31, 2017: €29 million, December 31, 2016: €44 million, January 1, 2016: €35 million).

Guarantees of €21 million as of December 31, 2018 (December 31, 2017: €3 million, December 31, 2016: €4 million, January 1, 2016: €9 million) are in place for the benefit of subsidiaries and equity investments of Volkswagen AG that are not part of the TRATON GROUP. Guarantees for consolidated subsidiaries of the Volkswagen AG not part of the TRATON GROUP and nonconsolidated subsidiaries of the TRATON GROUP in the amount of €174 million as of December 31, 2018 (December 31, 2017: €0 million, December 31, 2016: €2 million, January 1, 2016: €0 million) also exist. The increase in 2018 mainly relates to the sale of the Power Engineering business to a Volkswagen AG subsidiary outside the TRATON GROUP.

Other contingent liabilities relate mainly to contingent liabilities for potential charges from tax risks, which exist for Volkswagen Caminhões e Ônibus, in particular. It is not currently considered likely that a claim will be made against Volkswagen Caminhões e Ônibus, in connection with these liabilities. In the tax proceedings involving Volkswagen Caminhões e Ônibus, and the Brazilian tax authorities, the Brazilian tax authorities take a different position with regard to the tax effects of the acquisition structure chosen in 2009 for Volkswagen Caminhões e Ônibus. In December 2017, an administrative court ruled against Volkswagen Caminhões e Ônibus, following an appeal. Volkswagen Caminhões e Ônibus, took legal action

against this ruling by recourse to regular courts in 2018. Because of the potential range of punitive surcharges plus interest that may be applied under Brazilian law, the best estimate of the risk in the event that the tax authorities are successful in asserting their position entails a degree of uncertainty. Nevertheless, a positive outcome is still expected for Volkswagen Caminhões e Ônibus. In the event of an adverse outcome, the risk for the total contested period starting in 2009 could be approximately €683 million. This assessment is based on the accumulated amounts at the reporting date for the claimed tax liability including the potential expected punitive surcharges, as well as accumulated interest, but excluding any future interest, and without discounting any cash flows.

Customer liabilities to financial services companies of the Volkswagen Group and, to a small extent, third parties are covered by standard industry buyback guarantees under which TRATON is obliged to buy back vehicles from the financial services company in the event of default. The maximum expenses from such obligations amounted to €2,149 million as of December 31, 2018 (December 31, 2017: €1,903 million, December 31, 2016: €1,722 million, January 1, 2016: €1,623 million). However, based on experience, the majority of these guarantees expire without being drawn upon.

37. Litigation

In the course of their operating activities, TRATON GROUP and the companies in which it is directly or indirectly invested become involved in a great number of legal disputes and official proceedings in Germany and internationally. In particular, such legal disputes and other proceedings may occur in relation to suppliers, dealers, customers, employees, or investors. For the companies involved, these may result in payment or other obligations.

Risks may also emerge in connection with the adherence to regulatory requirements. This particularly applies in the case of regulatory vagueness that may be interpreted differently by TRATON GROUP and the agencies responsible for the respective regulations. In addition, legal risks can arise from the criminal activities of individual persons, which even the best compliance management system can never completely prevent.

Where transparent and economically viable, adequate insurance coverage is taken out for these risks. For the identifiable and measurable risks, provisions considered appropriate are recognized and information about contingent liabilities is disclosed. As some risks cannot be assessed or can only be assessed to a limited extent, the possibility of loss or damage not being covered by the insured amounts and provisions cannot be ruled out.

TRATON GROUP does not tolerate compliance violations. Neither corruption nor breaches of competition law are tolerated, encouraged, or accepted by TRATON.

IMPORTANT LEGAL CASES

In 2011, the European Commission launched an antitrust investigation into suspected antitrust violations in the commercial vehicles business and sent MAN, Scania and all other commercial vehicle manufacturers affected the statement of objections in November 2014, informing them of the allegations brought forward against them. With its settlement decision in July 2016 the European Commission imposed penalties on five European commercial vehicle manufacturers for "collusive arrangements on pricing and gross price increases in the European Economic Area for medium and heavy trucks and the timing and the passing on of the costs for the introduction of emission technologies for medium and heavy trucks required by EURO 3 to 6 standards" from January 17, 1997 to January 18, 2011 (for MAN: until September 20, 2010). MAN's fine was waived in full as it had notified the European Commission about the irregularities as a whistleblower. In September 2017, the European Commission then fined Scania €0.88 billion. Scania has appealed to the European Court in Luxembourg and will use all means at its disposal to defend itself. Scania had already recognized a provision of €0.4 billion in 2016. Furthermore, antitrust lawsuits for damages from customers who purchased or leased trucks were received. As is the case in any antitrust proceedings, this may result in further lawsuits for damages.

In the tax proceedings between MAN Latin America and the Brazilian tax authorities, the Brazilian tax authorities took a different view of the tax implications of the acquisition structure chosen for MAN Latin America in 2009. In December 2017, a second instance judgment was rendered in administrative court proceedings, which was negative for MAN Latin America. MAN Latin America has initiated proceedings against this judgment before the regular court in 2018. Due to the difference in the penalties plus interest which could potentially apply under Brazilian law, the estimated size of the risk in the event that the tax authorities are able to prevail overall with their view is laden with uncertainty. However, a positive outcome continues to

be expected for MAN Latin America. Should the opposite occur, this could result in a risk of about €683 million for the contested period from 2009 onwards, which has been stated within note “Contingent liabilities”.

In June 2013, the Annual General Meeting of MAN SE approved the conclusion of a domination and profit and loss transfer agreement between MAN SE and TRATON SE (formerly Volkswagen Truck & Bus GmbH, Volkswagen Truck & Bus AG, and TRATON AG). In July 2013, award proceedings were instituted to review the appropriateness of the cash settlement set out in the agreement in accordance with section 305 of the Aktiengesetz (AktG – German Stock Corporation Act) and the cash compensation in accordance with section 304 of the AktG.

In its final decision announced on June 26, 2018 (and corrected on July 30 and December 17, 2018), the Higher Regional Court (*Oberlandesgericht*) of Munich set the guaranteed dividend and the recurring fixed compensation payment at €5.47 gross per share (minus potential corporate taxes and solidarity surcharges at the rates as applicable to the respective fiscal year). The amount of the cash settlement payable of €90.29 per share from the Munich Regional Court ruling at first instance was confirmed. The decisions of the Higher Regional Court of Munich were published in the Federal Gazette (*Bundesanzeiger*) on August 6, 2018, and January 10, 2019. In accordance with Section 305 para. 4 AktG, non-controlling interest shareholders had the right to tender their shares to TRATON SE (at that point in time TRATON AG) in consideration for a cash redemption of EUR 90.29 per share plus interest within two months after this publication date and thereby cease to be shareholders. As a result of the court decision the compensation payment increased significantly. Consequently, the domination and profit and loss transfer agreement with MAN SE was terminated with effect from January 1, 2019. Following the legal effect of the court decisions, TRATON SE (at that point in time TRATON AG) terminated the domination and profit and loss transfer agreement for cause in accordance with Section 304 para. 4 AktG with effect as of January 1, 2019. After the publication of the registration of the termination, the non-controlling interest shareholders of MAN SE were again entitled to tender their shares to TRATON SE (at that point in time TRATON AG) in consideration for a cash redemption of EUR 90.29 per share without additional interest. As per December 2018, TRATON SE held 86.87% of the shares and 87.04% of the voting rights in MAN SE.

In line with IAS 37.92, no further statements have been made concerning estimates of financial impact or about uncertainty regarding the amount or maturity of provisions and contingent liabilities. This is so as to not compromise the results of the proceedings or the interests of the Company.

38. Other financial obligations

2018				
€ million	PAYABLE	PAYABLE	PAYABLE	TOTAL
	2019	2020 – 2023	from 2024	Dec. 31, 2018
Purchase commitments in respect of				
property, plant and equipment	447	85	-	532
intangible assets	1	-	-	1
Obligations from				
irrevocable credit and lease commitments to customers	290	59	5	354
long-term leasing and rental contracts	200	536	418	1,154
Miscellaneous other financial obligations	25	3	0	28

2017

€ million	PAYABLE	PAYABLE	PAYABLE	TOTAL
	2018	2019 – 2022	from 2023	Dec. 31, 2017
Purchase commitments in respect of				
property, plant and equipment*	401	10	-	411
intangible assets*	4	-	-	4
Obligations from				
irrevocable credit and lease commitments to customers	326	52	3	380
long-term leasing and rental contracts**	175	423	387	985
Miscellaneous other financial obligations	105	1	1	107

* In addition, for discontinued operations purchase commitments in respect of property plant and equipment were €51 million and purchase commitments in respect of intangible assets amounted to €1 million.

** Discontinued operations had further obligations from irrevocable credit and lease commitments amounting to €203 million (thereof payable within a year €47 million, payable in more than one but less than five years €116 million and payable in more than five years €40 million) and miscellaneous other financial obligations of €152 million. All discontinued operations were deconsolidated in 2018.

2016

€ million	PAYABLE	PAYABLE	PAYABLE	TOTAL
	2017	2018 – 2021	from 2022	Dec. 31, 2016
Purchase commitments in respect of				
property, plant and equipment*	348	17	-	365
intangible assets*	5	1	-	6
Obligations from				
irrevocable credit and lease commitments to customers	312	55	3	370
long-term leasing and rental contracts**	191	452	367	1,010
Miscellaneous other financial obligations	115	6	1	122

* In addition, for discontinued operations purchase commitments in respect of property plant and equipment were €48 million and purchase commitments in respect of intangible assets amounted to €1 million.

** Discontinued operations had further obligations from irrevocable credit and lease commitments amounting to €147 million (thereof payable within a year €52 million, payable in more than one but less than five years €83 million and payable in more than five years €12 million) and miscellaneous other financial obligations of €110 million. All discontinued operations were deconsolidated in 2018.

01.01.2016

€ million	PAYABLE	PAYABLE	PAYABLE	TOTAL
	2016	2017 – 2020	from 2021	Jan. 1, 2016
Purchase commitments in respect of				
property, plant and equipment*	226	95	-	321
intangible assets*	8	1	-	9
Obligations from				
irrevocable credit and lease commitments to customers	303	54	3	360
long-term leasing and rental contracts**	169	365	374	908
Miscellaneous other financial obligations	77	1	-	78

* In addition, for discontinued operations purchase commitments in respect of property plant and equipment were €69 million and purchase commitments in respect of intangible assets amounted to €1 million.

** Discontinued operations had further obligations from irrevocable credit and lease commitments amounting to €141 million (thereof payable within a year €45 million, payable in more than one but less than five years €81 million and payable in more than five years €15 million) and miscellaneous other financial obligations of €140 million. All discontinued operations were deconsolidated in 2018.

Expenses of €288 million in the reporting period (€198 million in 2017, €182 million in 2016) were recognized for minimum lease payments on assets leased through operating leases. These relate to lease expenses for buildings, among other things. Expenses of €4 million for contingent lease payments were also incurred in the reporting period (€48 million in 2017, €55 million in 2016).

39. Total personnel expense for the period

€ million	2018	2017	2016
Wages and salaries	5,403	5,028	4,990
Social security, post-employment and other employee benefit costs	1,530	1,358	1,241
	6,933	6,386	6,231
thereof from discontinued operations	1,373	1,333	1,468

40. Related party disclosures in accordance with IAS 24

Related parties as defined by IAS 24 are natural persons and entities that TRATON GROUP has the ability to control or on which it can exercise significant influence, or natural persons and entities that have the ability to control or exercise significant influence on TRATON GROUP, or that are influenced by another related party of TRATON GROUP.

Related parties from TRATON's perspective as of December 31, 2018, are:

- Volkswagen AG and its subsidiaries and material equity investments outside the TRATON GROUP,
- Porsche Automobil Holding SE, Stuttgart, having significant influence on the operating policy decisions of the Volkswagen Group, and its affiliated companies and related parties (Porsche Stuttgart),
- Other individuals and entities that can be influenced by TRATON GROUP or that can influence TRATON GROUP, such as:
 - the members of the Management and the Supervisory Board of TRATON GROUP,
 - the members of the Board of Management and Supervisory Board of Volkswagen AG,
 - associates and joint ventures,
 - unconsolidated subsidiaries.

On December 31, 2018, Volkswagen held 100% of TRATON GROUP's voting rights and 100% of its share capital. A domination and profit and loss transfer agreement is in place between TRATON SE and Volkswagen AG.

Members of the Board of Management and Supervisory Board of TRATON GROUP are members of supervisory and management boards or shareholders of other companies with which TRATON GROUP has relations in the normal course of business.

In 2018, the Power Engineering business was sold to a subsidiary of Volkswagen AG not part of the TRATON GROUP. In addition, TRATON decided in 2018 to sell its subsidiary VGSG to a subsidiary of Volkswagen AG as per January 1, 2019. Both transactions are described in more detail in the notes "Basis of presentation and Noncurrent assets held for sale and discontinued operations".

The following tables present the amounts of supplies and services transacted, as well as outstanding receivables and liabilities, between consolidated companies of the TRATON GROUP and related parties, including Volkswagen AG. No transactions with Porsche Stuttgart took place in any of the periods presented.

RELATED PARTIES

€ million	SUPPLIES AND SERVICES RENDERED			SUPPLIES AND SERVICES RECEIVED		
	2018	2017	2016	2018	2017	2016
Volkswagen AG	18	17	13	132	95	60
Other subsidiaries and equity investments of Volkswagen AG that are not part of the TRATON GROUP	1,658	1,553	1,388	454	264	142
Unconsolidated subsidiaries	41	51	56	5	8	5
Associates and their majority interests	159	192	163	106	190	250
Joint Ventures	17	13	-	85	86	79

€ million	RECEIVABLES FROM				LIABILITIES (INCLUDING OBLIGATIONS) TO			
	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Jan. 1, 2016
Volkswagen AG	5,650	3,487	3,527	4,756	2,543	2,664	2,177	3,054
Other subsidiaries and equity investments of Volkswagen AG that are not part of the TRATON GROUP	2,724	306	581	628	3,495	2,474	2,427	2,287
Unconsolidated subsidiaries	8	26	28	17	39	41	40	38
Associates and their majority interests	89	51	41	35	21	19	22	23
Joint Ventures	2	2	2	1	1	0	0	10

Supplies and services received from other subsidiaries and equity investments of the Volkswagen AG that are not part of the TRATON GROUP relate mainly to unfinished and finished products. The supplies and services rendered to other subsidiaries and equity investments of Volkswagen AG that are not part of the TRATON GROUP mainly relate to the sales financing business of MAN Truck & Bus via Volkswagen Financial Services.

The receivables from Volkswagen AG mainly comprise cash pooling balances and receivables from the profit and loss transfer agreement and tax allocation procedure. The cash pooling agreement with Volkswagen AG is described in more detail in the note "Accounting policies". The receivables from other subsidiaries and equity investments of Volkswagen AG that are not part of the TRATON GROUP include the cash consideration of €1,980 million regarding the sale of Power Engineering.

The liabilities to Volkswagen AG include loans granted by Volkswagen AG of €2,293 million resulting from a loan framework of €4,800 million. The liabilities to other subsidiaries and equity investments of Volkswagen AG that are not part of the TRATON GROUP mainly relate to liabilities to Volkswagen Financial Services.

Volkswagen AG's contributions to the TRATON GROUP's capital reserve amounted to €311 million in cash in 2017, and to €11,952 million as a contribution in kind of the Scania AB shares in 2016. The sale of receivables to subsidiaries of Volkswagen AG that are not part of the TRATON GROUP amounted to €1,118 million as of December 31, 2018 (December 31, 2017: €1,070 million, December 31, 2016: €698 million). Furthermore, customer liabilities to Volkswagen Financial Services are covered by standard industry buyback guarantees, see note "Contingencies and Commitments".

Obligations to key management personnel comprise the pension provisions for Board of Management members. They amount to €1 million as of December 31, 2018 (December 31, 2017: €1 million, December 31, 2016: €1 million, January 1, 2016: €0 million).

The following expenses were recognized by TRATON for the key management personnel in the course of their activities as members of the Management board:

€ million	2018	2017	2016
Short-term benefits	6	7	6
Post-employment benefits	1	1	1
	7	8	7

The Supervisory Board of TRATON SE received an expense allowance for the fiscal year 2018. Furthermore, the employee representatives on the Supervisory Board who are employed by TRATON GROUP companies also received their regular salaries as specified in their employment contracts.

41. Events after the reporting period

By resolution of December 14, 2018 the Company changed its legal form to a European Stock Corporation (Societas Europaea/SE). The change in legal form became effective upon the registration in the commercial register on January 17, 2019.

On December 6, 2018 TRATON SE concluded an agreement with a Volkswagen AG subsidiary outside of the TRATON GROUP to sell its subsidiary, Volkswagen Gebrauchtfahrzeughandels und Service GmbH, with effect from January 1, 2019. The associated assets and liabilities were presented as held for sale as of December 31, 2018.

After the balance sheet date, 839,380 shares of MAN SE shares were tendered to TRATON SE (see section "Litigation"). This will result in a cash outflow of €76 million in 2019.

No other events occurred after the reporting period that are material for the TRATON GROUP and that could lead to a reassessment of the Company.

Munich, February 14, 2019

TRATON SE

The Executive Board

Andreas Renschler

Christian Schulz

Antonio Roberto Cortes

Joachim Drees

Henrik Henriksson

Dr. Carsten Intra

Christian Levin