O ALTANA

Consolidated Financial Statements

16. Investments in at Equity Accounted Companies

Management Board Responsibility Statement	2	17. Inventories	42
ndependent Auditors' Report	3	18. Trade Accounts Receivable	42
ALTANA Group Consolidated Income Statement	8	19. Marketable Securities	43
ALTANA Group Consolidated Statement of		20. Short-term Financial Assets	44
Comprehensive Income	9	21. Other Assets	44
ALTANA Group Consolidated Statement of Financial	10	22. Shareholders' Equity	44
Position	10	23. Employee Incentive Plans	46
ALTANA Group Consolidated Statement of Changes n Shareholders' Equity	12	24. Debt	48
ALTANA Group Consolidated Statement of Cash Flows	14	25. Employee Benefit Obligations	49
Notes to Consolidated Financial Statements	16	26. Other Provisions	54
Basis of Presentation	16	27. Other Liabilities	55
Significant Accounting Policies	16	28. Additional Disclosures for Financial Instruments	55
3	25	29. Commitments and Contingencies	70
Business Combinations and Disposals		30. Related Party Transactions	71
4. Net Sales	28	31. Compensation of the Supervisory Board and	
5. Cost of Sales	28	Management Board	72
6. Selling and Distribution Expenses	29	32. Fees Paid to the Auditor	74
7. Other Operating Income	29	33. Subsequent Events	74
8. Other Operating Expenses	29	34. Additional Information	74
9. Financial Income	30	Supervisory Board of ALTANA AG	75
10. Financial Expenses	30	Supervisory Board Committees	77
11. Income Taxes	31	Management Board of ALTANA AG	77
12. Other Information on the Income Statement	33	Contact	79
13. Intangible Assets	34		
14. Property, Plant and Equipment	37		
15 Long-term Investments	39		

Management Board Responsibility Statement

The consolidated financial statements of the annual report have been prepared by the Management Board of ALTANA AG, which is responsible for the completeness and accuracy of the information contained therein.

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS), as endorsed by the EU and in accordance with the requirements of German commercial law pursuant to section 315e of the German Commercial Code (HGB).

The information contained in the consolidated financial statements and the Group Management Report is based on the information reported, in accordance with consistent guidelines in force throughout the Group by the companies included in the consolidated financial statements. The integrity of the reporting process is safeguarded by effective internal control systems established at these companies under the direction of the Management Board. This assures a true and fair view of the performance and results of the Group and enables the Management Board to recognize potential investment risks and negative developments at an early stage and take appropriate countermeasures.

By resolution of the Annual General Meeting, the Chairman of the Audit Committee of the Supervisory Board appointed PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft as independent auditors of the consolidated financial statements. The auditors issued an unqualified auditors' report on the complete consolidated financial statements and the Group management report. The consolidated financial statements, the Group Management Report and the auditors' report have been made available to the Supervisory Board for detailed discussion. The report of the Supervisory Board is contained on pages 16 - 19 of the Corporate Report 2018.

To the best of our knowledge and in accordance with the applicable reporting principles the consolidated financial statements give a true and fair view of the net assets, financial position, and results of operations of the Group and the Group Management Report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Wesel, Germany, February 26, 2019

ALTANA AG
The Management Board

Martin Babilas

Stefan Genten

Dr. Christoph Schlünken

Independent Auditors' Report

To ALTANA Aktiengesellschaft, Wesel

Audit Opinions

We have audited the consolidated financial statements of ALTANA Aktiengesellschaft, Wesel, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2018, and the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in shareholders' equity and consolidated statement of cash flows for the financial year from January 1 to December 31, 2018 and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of ALTANA Aktiengesellschaft for the financial year from January 1 to December 31, 2018. In accordance with the German legal requirements, we have not audited the content of those parts of the group management report listed in the "Other Information" section of our auditor's report.

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

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to § [Article] 315e Abs. [paragraph] 1 HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at December 31, 2018, and of its financial performance for the financial year from January 1 to December 31, 2018, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the group management report does not cover the content of those parts of the group management report listed in the "Other Information" section of our auditor's report.

Pursuant to § 322 Abs. 3 Satz [sentence] 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with § 317 HGB in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the group management report.

Other Information

The executive directors are responsible for the other information. The other information comprises the following non-audited parts of the group management report:

- the declaration of corporate governance pursuant to § 289f Abs. 4 HGB included in section "Innovation and Employees" of the group management report
- the corporate governance report.

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

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

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

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

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

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

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

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

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies

with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

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

- identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.
- evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.
- perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Cologne, Germany, February 28, 2019

PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft

Jörg Sechser German Public Auditor ppa. Carsten Manthei German Public Auditor

ALTANA Group Consolidated Income Statement

	Notes	2017	2018
in € thousand			
Net sales	4	2,246,956	2,307,399
Cost of sales		(1,371,573)	(1,463,627)
Gross profit		875,383	843,772
Selling and distribution expenses	6	(288,653)	(291,228)
Research and development expenses		(142,484)	(154,127)
General administration expenses		(118,466)	(108,571)
Other operating income	7	23,498	16,737
Other operating expenses	8	(13,359)	(10,825)
Operating income (EBIT)		335,919	295,758
Financial income		7,092	4,898
Financial expenses	10	(15,684)	(12,110)
Financial result		(8,592)	(7,212)
Income from at equity accounted investments		(21,301)	(24,460)
Income before income taxes (EBT)		306,026	264,086
Income taxes		(71,382)	(77,097)
Net income (EAT)		234,644	186,989
thereof attributable to non-controlling interests		1,829	1,975
thereof attributable to the shareholder of ALTANA AG		232,815	185,014

ALTANA Group Consolidated Statement of Comprehensive Income

	2017	2018
in € thousand		
Net income (EAT)	234,644	186,989
Remeasurement of the net defined employee benefit obligation	11,237	5,311
Income taxes	(4,449)	(1,502)
Items that will not be reclassified subsequently to profit or loss	6,788	3,809
Translation adjustments	(113,863)	23,913
thereof attributable to non-controlling interests	(659)	(370)
Gains and losses from financial assets available-for-sale	(17)	
Gains and losses from derivative financial instruments	61	(2,425)
Change in fair value of financial assets available-for-sale	24	
Change in fair value of derivative financial instruments	6,460	(4,360)
Income taxes	(1,956)	2,060
Items that may be reclassified subsequently to profit or loss	(109,291)	19,188
Other comprehensive income	(102,503)	22,997
Comprehensive income	132,141	209,986
thereof attributable to non-controlling interests	1,181	1,602
thereof attributable to the shareholder of ALTANA AG	130,960	208,384

ALTANA Group Consolidated Statement of Financial Position

Assets	Notes	Dec. 31, 2017	Dec. 31, 2018
in € thousand			
Intangible assets	13	1,056,943	1,044,217
Property, plant and equipment	14	774,405	868,162
Long-term investments	15	63,227	22,323
Investments in at equity accounted companies	16	96,705	117,869
Income tax refunds		169	
Deferred tax assets	11	18,645	20,496
Other non-current assets	21	11,479	10,667
Total non-current assets		2,021,573	2,083,734
Inventories	17	330,170	373,027
Trade accounts receivable	18	371,911	384,180
Income tax refunds		8,671	12,832
Other current assets	21	118,113	103,836
Marketable securities	19	18,730	21,907
Short-term financial assets	20	2,074	2,690
Cash and cash equivalents		275,671	239,652
Assets held for sale		797	
Total current assets		1,126,137	1,138,124
Total assets		3,147,710	3,221,858

Liabilities, provisions and shareholders' equity	Notes	Dec. 31, 2017	Dec. 31, 2018
in € thousand			
Share capital ¹		136,098	136,098
Additional paid-in capital		151,276	151,276
Retained earnings		1,864,798	1,974,331
Accumulated other comprehensive income		51,963	71,359
Equity attributable to the shareholder of ALTANA AG		2,204,135	2,333,064
Non-controlling interests		10,065	11,553
Shareholders' equity	22	2,214,200	2,344,617
Non-current debt	24	134,973	62,959
Employee benefit obligations	25	224,230	220,429
Other non-current provisions	26	18,366	20,331
Deferred tax liabilities	11	84,252	85,462
Other non-current liabilities	27	24,787	27,862
Total non-current liabilities		486,608	417,043
Current debt	24	69,269	82,641
Trade accounts payable		192,016	195,351
Current accrued income taxes		33,915	41,212
Other current provisions	26	104,237	87,479
Other current liabilities	27	47,465	53,515
Total current liabilities		446,902	460,198
Total liabilities, provisions and shareholders' equity		3,147,710	3,221,858

 $^{^{\}rm 1}$ Share capital consists of 136,097,896 no-par value shares.

ALTANA Group Consolidated Statement of Changes in Shareholders' Equity

	Share	Share capital issued		I	Retained earnings	
	Number of shares	Share capital	Additional paid-in capital	Retained earnings	Remeasure- ment of the net defined em- ployee benefit obligation	
in € thousand						
Balance at Jan. 1, 2017	136,097,896	136,098	151,276	1,736,631	(111,426)	
Other comprehensive income					6,779	
Net income (EAT)				232,815		
Comprehensive income				232,815	6,779	
Dividends paid						
Change in reporting entities				(1)		
Balance at Dec. 31, 2017	136,097,896	136,098	151,276	1,969,445	(104,647)	
Change in accounting policies				709		
Adjusted balance at Jan. 1, 2018	136,097,896	136,098	151,276	1,970,154	(104,647)	
Other comprehensive income					3,812	
Net income (EAT)				185,014		
Comprehensive income				185,014	3,812	
Dividends paid				(80,000)		
Change in reporting entities				(2)		
Balance at Dec. 31, 2018	136,097,896	136,098	151,276	2,075,166	(100,835)	

	ntrolling interests	Non-cor	_	ehensive income	umulated other compr	Acc
Shareholders' equity	Translation adjustments	Shareholders' equity	Equity attrib- utable to the shareholder of ALTANA AG	erivative utable to the financial Translation shareholder	Derivative financial instruments	Financial assets available- for-sale
2,082,181	(1,923)	10,928	2,073,176	161,877	(1,437)	157
(102,503)	(657)	9	(101,855)	(113,204)	4,565	
234,644		1,829	232,815			
132,141	(657)	1,838	130,960	(113,204)	4,565	5
(121)		(121)	0			
(1)			(1)			
2,214,200	(2,580)	12,645	2,204,135	48,673	3,128	162
544		(3)	547			(162)
2,214,744	(2,580)	12,642	2,204,682	48,673	3,128	0
22,997	(370)	(3)	23,370	24,283	(4,725)	
186,989		1,975	185,014			
209,986	(370)	1,972	208,384	24,283	(4,725)	0
(80,111)		(111)	(80,000)			
(2)			(2)			
2,344,617	(2,950)	14,503	2,333,064	72,956	(1,597)	0

ALTANA Group Consolidated Statement of Cash Flows

	Notes	2017	2018
in € thousand			
Net income (EAT)		234,644	186,989
Depreciation and amortization of intangible assets and property, plant and equipment	13, 14	133,637	134,842
Impairment of intangible assets, property, plant and equipment and assets held for sale	13, 14	451	
Change in fair value of financial assets and securities	10		(27)
Net result from the disposal of intangible assets and property, plant and equipment	7, 8	316	(1,414)
Net result from the disposal of long-term investments and marketable securities	9	(17)	(55)
Change in inventories	17	(40,673)	(40,369)
Change in trade accounts receivable	18	(32,521)	(11,379)
Change in income taxes	11	(29,746)	1,723
Change in provisions	25, 26	(528)	(14,411)
Change in trade accounts payable		24,702	2,367
Change in other assets and other liabilities	21, 27	(8,951)	11,804
Other		20,951	26,165
Cash flow from operating activities		302,265	296,235
Capital expenditure on intangible assets and property, plant and equipment	13, 14	(187,964)	(186,988)
Proceeds from the disposal of intangible assets and property, plant and equipment	13, 14	1,085	5,843
Acquisitions, net of cash acquired	3	(140,695)	(3,126)
Purchase of long-term investment and investments in at equity companies	15, 16	(30,454)	(54,901)
Proceeds from the disposal of long-term investments	15	43	54
Payments on long-term loans		(54,000)	(23,010)
Proceeds from long-term loans		98	71,014
Purchase of marketable securities	19	(32,456)	(31,339)
Proceeds from the disposal of marketable securities	9, 10	28,575	27,462
Change in short-term financial assets		90,652	(700)
Cash flow from investing activities		(325,116)	(195,691)

	Notes	2017	2018
in € thousand			
Dividends paid		(121)	(80,111)
Proceeds from issuance of long-term debt	24		8,383
Repayment of long-term debt	24	(1,892)	(67)
Net increase / decrease in short-term debt	24	(65,422)	(64,144)
Cash flow from financing activities		(67,435)	(135,939)
Effect of exchange rate changes		(9,649)	(624)
Change in cash and cash equivalents		(99,935)	(36,019)
Cash and cash equivalents as of January 1	2	375,606	275,671
Cash and cash equivalents as of December 31	2	275,671	239,652
Additional information on cash flows included in the cash flows from operating activities			
Income taxes paid		(114,219)	(80,603)
Interest paid		(8,260)	(3,916)
Income taxes received		4,500	5,966
Interest received		4,754	2,226
Dividends received		1,061	962

Notes to Consolidated Financial Statements

Basis of Presentation

The consolidated financial statements of ALTANA AG and its subsidiaries (the "Company" or "ALTANA") as of December 31, 2018 are prepared in accordance with International Financial Reporting Standards (IFRS), issued by the International Accounting Standards Board (IASB) as endorsed by the EU, and in accordance with section 315e of the German Commercial Code (HGB). The consolidated financial statements were authorized for issue by the Management Board on February 26, 2019 and should be approved by the Supervisory Board in the Supervisory Board meeting on March 12, 2019.

ALTANA as a world-wide specialty chemicals group focuses its core activities on demanding markets and customers who require individual solutions to problems. A significant portion of ALTANA's product and service portfolio comprises materials for the production of coatings, printing inks and plastics. In addition, printing inks and coatings for special applications, insulating resins for the electrical and electronics industries, sealing compounds for packaging as well as measuring and testing instruments are also produced.

ALTANA AG is incorporated as a stock corporation ("Aktiengesellschaft") under the laws of the Federal Republic of Germany. The Company is registered in the Commercial Register of the district court in Duisburg under HRB 19496 and has its headquarters at Abelstrasse 43 in 46483 Wesel, Germany.

All amounts are reported in thousands of Euro if not stated otherwise. Due to rounding minor differences between single amounts and totals or percentages may occur.

2. Significant Accounting Policies

Consolidation

The consolidated financial statements of the Company include 21 (prior year: 22) subsidiaries in Germany and 42 (prior year: 45) subsidiaries abroad, over which ALTANA either directly or indirectly exercises control. All consolidated subsidiaries have the same reporting date.

In 2018, in the BYK division three German subsidiaries as well as two foreign subsidiaries were merged and one new subsidiary in India was founded. The ELANTAS division deconsolidated one subsidiary. In the ACTEGA division two subsidiaries in Brazil were merged. In the ECKART division one European subsidiary was liquidated. Furthermore, in the Holding division one existing previously non-operating subsidiary in Germany was initially consolidated.

ALTANA holds 75 % of the listed company ELANTAS Beck India Ltd. (Beck India), Pune (IND). The remaining shares are free float. ALTANA holds 100 % interest in all other consolidated subsidiaries.

The following three investments are accounted for by applying the equity method of accounting (see note 16): 39 % interest in Aldoro Indústria de Pós e Pigmentos Metálicos Ltda. (Aldoro), São Paulo (BRA), 33 % interest in Landa Corp. (Landa), Rehovot (ISR), and 44 % interest in dp polar GmbH (dp polar), Eggenstein-Leopoldshafen.

All intercompany balances and transactions are eliminated in consolidation. The financial statements of the consolidated subsidiaries are prepared in accordance with the Company's accounting policies.

The list of all consolidated companies and ALTANA's full ownership in accordance with section 313 (2) of the German Commercial Code (HGB) is part of the audited consolidated financial statements published in the electronic Federal Gazette (Bundesanzeiger). This list is also available on the internet at www.altana.com.

New Accounting Pronouncements Endorsed by the EU

Only the Standards and Interpretations that have an effect on ALTANA's consolidated financial statements are described below:

In May 2014, the IASB issued IFRS 15, "Revenue from Contracts with Customers" which was endorsed by the EU in 2016. The clarification to IFRS 15 issued by the IASB in 2016 was endorsed by the EU on November 9, 2017. The Standard is effective for annual periods beginning on or after January 1, 2018. IFRS 15 applies a five-step model to determine when to recognize revenue, and at what amount. The Standard also contains qualitative and quantitative disclosure requirements. For initial application of IFRS 15 ALTANA applies the modified retrospective method, which allows recognition of the cumulative transition effect as of January 1, 2018 in retained earnings as an adjustment to the opening balance. Comparative periods presented are not adjusted and are reported in accordance with the provisions of IAS 18 "Revenues" applicable for these periods. An analysis of all relevant divisions resulted in insignificant effects on ALTANA's consolidated statement of financial position, consolidated income statement and consolidated statement of cash flows. Revenues are recognized at the point in time when the customer gains control over the goods or services. The adjustment resulting from the initial application of IFRS 15 as of January 1, 2018 relates to future probable sales reductions recognized as additional refund liabilities in the amount of €0.9 million. Retained earnings were adjusted by the corresponding amount, net of related deferred taxes.

In July 2014, the IASB issued IFRS 9, "Financial Instruments," which was endorsed by the EU in 2016 and is effective for annual periods beginning on or after January 1, 2018. IFRS 9 contains guidelines regarding the classification and measurement of financial assets, financial liabilities, impairment of financial assets and the accounting of hedging relationships. The initial adoption of the new standard had an effect on the classification and measurement of financial assets but had no effect on the classification and measurement of the Company's financial liabilities. Equity instruments, which were measured at acquisition cost under IAS 39, "Financial Instruments: recognition and measurements," shall now be measured at fair value (either through profit or loss or other comprehensive income). For equity instruments currently held by the Company the fair value option through other compressive income is not applied. Available for sale financial instruments which were measured at fair value or acquisition cost are now measured at fair value through profit or loss. Furthermore, the regulations of IFRS 9 require the recognition of expected credit losses for trade accounts receivable and other financial assets measured at amortized cost. Based on the good credit-worthiness of the Company's customers a low probability of default as of the reporting date exists. All existing hedging relationships also qualify for hedge accounting under IFRS 9. The option to recognize the hedging cost related to a hedging relationship initially in other comprehensive income is applied. ALTANA elected to apply IFRS 9 for hedge accounting from January 1, 2018 prospectively.

In January 2016, the IASB issued IFRS 16, "Leases," effective for annual periods beginning on or after January 1, 2019. The standard was endorsed by the EU on November 6, 2017. ALTANA will adopt the standard beginning January 1, 2019 and did not opt for early adoption. IFRS 16 mainly relates to the lease accounting by the lessee. Generally, all lease transactions will be accounted for in accordance with the so-called "right of use approach." For lessors, the classifications of leases in operating and financial lease in accordance with IAS 17, "Leases," remains unchanged under IFRS 16. Furthermore, ALTANA will use the option under IFRS 16 in respect of low value assets, so-called "small-ticket leases", and short-term lease contracts and therefore, will not recognize these in its financial statements. ALTANA will apply the modified retrospective approach provided for in the transition guidance.

In 2018, ALTANA used a software-based tool to collect, analyze and evaluate the existing leases. Upon initial adoption of the standard, ALTANA will record an increase in lease obligations of €41.3 million and a corresponding increase in property, plant and equipment as a result of the recognition of the rights of use. In the consolidated income statement corresponding depreciation as well as interest expense will be recognized instead of lease expense. Based on existing lease contracts, this will lead to an increase in EBITDA by €10.5 million but will have an insignificant effect on net income.

Foreign Currency

The consolidated financial statements of ALTANA are expressed in Euro.

Financial statements of subsidiaries where the functional currency is a currency other than the Euro are translated using the functional currency principle. For these entities, assets and liabilities are translated using the middle rate at year end, while revenues and expenses are translated using the average exchange rates prevailing during the year. Equity is translated at historical exchange rates. Adjustments for cumulative foreign currency translation fluctuations are excluded from profit or loss and are reported in other comprehensive income.

Transactions realized in foreign currencies are translated to the local currency using the exchange rate prevailing at the transaction dates. Transaction gains and losses that arise from exchange-rate fluctuations on transactions denominated in a currency other than the functional currency are generally included in other operating income or other operating expenses and, if they relate to the translation of financial assets or liabilities, in financial income or expenses.

The following table provides the exchange rates for ALTANA's most important currencies to the Euro:

			Spot rate Average rate for the ye ended Dec.		
		Dec. 31, 2017	Dec. 31, 2018	2017	2018
1 Euro					
Brazil	BRL	3.97	4.44	3.61	4.31
China	CNY	7.80	7.88	7.63	7.81
India	INR	76.61	79.73	73.53	80.73
Japan	JPY	135.01	125.85	126.71	130.40
Switzerland	CHF	1.17	1.13	1.11	1.15
U.S.	USD	1.20	1.15	1.13	1.18

Basis for Presentation of the Consolidated Financial Statements

The consolidated financial statements are generally prepared by applying the historical cost convention. Excluded from this principle are certain financial assets and liabilities (including derivative instruments), assets held for sale and defined benefit pension plans.

Revenue Recognition

Revenues include all revenues realized in the ordinary course of business of ALTANA (see note 1). Since revenue is almost exclusively generated from product sales, for which the performance obligations are not fulfilled over time but at a specific point in time, revenue is also

recognized at the point in time when control is transferred to the customer. Usually control is transferred as soon as the products have been delivered to the agreed location and the risk of, among others things, obsolescence and loss have passed to the customer and the customer has either accepted the products in accordance with the purchase agreement or ALTANA has obtained objective evidence that all acceptance criteria have been met. Revenue from these sales is recognized in the amount stated in the contract less estimated discounts in the form of customer bonuses and cash discounts. A corresponding refund liability is reported in other provisions (see note 26) and other liabilities (see note 27). Management's best estimate (expected value method) which is based on sales and agreed contractual conditions is used to determine the amount of the refund liability. Once payment has been received, revenue is adjusted for the actual payment. The payment of the transaction price is due in the short term. Transaction prices attributable to unfulfilled or partially unfulfilled performance obligations at the end of a financial year relate to contracts with a maximum term of one year and are therefore not disclosed in accordance with IFRS 15.

All notes related to 2017 were disclosed in accordance with IAS 18, while disclosures relating to 2018 are in accordance with IFRS 15.

Research and Development Expenses

In accordance with IAS 38, "Intangible Assets," research costs, defined as costs of original and planned research performed to gain new scientific or technical knowledge and understanding, are expensed as incurred. Development costs are defined as costs incurred to achieve technical and commercial feasibility. When the recognition criteria of IAS 38 are fulfilled, the directly attributable development costs are recognized as intangible assets. In the majority of the cases, the recognition criteria are not completely fulfilled due to the uncertainties regarding the commercialization of products inherent to the development of ALTANA's products.

Personnel and Interest Expenses

The net interest expense from employee benefit obligations is reported under interest expense and not under personnel expense or functional cost.

Income Taxes

Income taxes include current and deferred income taxes. Current income taxes relate to all taxes levied on taxable income of the consolidated companies. Other taxes such as property taxes or excise taxes (power supply, energy) are classified as functional costs.

Under IAS 12, "Income Taxes," deferred tax assets and liabilities are recognized in the consolidated financial statements for all temporary differences between the carrying amounts of assets and liabilities and their tax bases, for tax credits and operating loss carry-forwards.

For purposes of calculating deferred tax assets and liabilities, the Company applies the tax rates that have been enacted or substantively enacted at the reporting date. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the period the legislation is substantively adopted. Deferred tax assets are recognized only to the extent that it is probable that future taxable income will be available against which the tax credits and tax loss carry-forwards can be used.

Fair Value

IFRS 13, "Fair Value Measurement," applies to IFRS that require or permit fair value measurement or disclosure and provides a single IFRS framework for measuring fair value and requires disclosures about fair value measurement. The fair value is the price that would be received to sell an asset or paid to transfer a liability. The three-level fair value hierarchy in accordance with IFRS 13 is applied. Fair value hierarchy level 1 is assigned to financial assets or liabilities for which quoted market prices for identical assets or liabilities in active markets exist. The allocation to fair value hierarchy level 2 is applied when valuation models are used or prices are derived from similar transactions. Financial assets and liabilities are measured at fair value hierarchy level 3 if unobservable input factors are applied to determine fair value. When measuring assets and liabilities the effect of non-performance risk is also reflected in the fair value.

Intangible Assets

Intangible assets, including software, are accounted for in accordance with IAS 38, and are recognized if (a) the intangible asset is identifiable (i.e., it is separable or arises from contractual or other legal rights), (b) it is probable that the expected future economic benefits (e.g., cash or other benefits such as cost savings) that are attributable to the asset will flow to the entity, and (c) the cost of the intangible asset can be measured reliably.

Intangible assets with definite useful lives are measured at cost less accumulated amortization. Borrowing costs that are directly attributable to qualifying assets are capitalized.

Intangible assets are amortized straight-line over the shorter of their contractual term or their estimated useful lives.

The following useful lives are applied:

	Years
Patents, licenses and similar rights	3 to 25
Other intangible assets	1 to 25

Amortization expense relates to intangible assets with definite useful lives and is recorded based on its function in cost of sales, selling and distribution expenses, research and development expenses or general administration expenses.

Intangible assets with indefinite useful lives as well as goodwill are not amortized but tested for impairment regularly. Impairment losses on these assets are recorded in other operating expenses (see "Impairments of Intangible Assets and Property, Plant and Equipment").

Property, Plant and Equipment

Property, plant and equipment are measured at acquisition or manufacturing cost less accumulated depreciation. Cost includes certain costs that are capitalized during construction, including material, payroll and direct overhead costs. Borrowing costs that are directly attributable to qualifying assets are capitalized. Government grants are deducted from the acquisition or manufacturing costs.

Property, plant and equipment are depreciated on a straight-line basis over the estimated useful lives of the assets:

	Years
Buildings and leasehold	2 to 75
Plant and machinery	2 to 30
Equipment	2 to 30

Maintenance and repairs are expensed as incurred while replacements and improvements are capitalized, if the item qualifies for recognition as an asset, as well as asset retirement obligations. Gains or losses resulting from the sale or retirement of assets are recognized in other operating income or expenses.

Depreciation expense of property, plant and equipment is recorded based on its function in cost of sales, selling and distribution expenses, research and development expenses or general administration expenses.

Investment property comprises land and buildings not used in the production or for administrative purposes and is measured at amortized cost.

Impairment of Intangible Assets and Property, Plant and Equipment

Irrespective of whether there is any indication of impairment, the Company tests goodwill acquired in a business combination and intangible assets with an indefinite useful life for impairment at least annually. For the purpose of testing goodwill for impairment, such goodwill is allocated to cash-generating units that are expected to benefit from the synergies of the business combination. In accordance with IAS 36, "Impairment of Assets," an impairment loss is recognized when the carrying amount of the cash-generating unit, to which goodwill was allocated, exceeds the higher of its fair value less costs of disposal or its value in use.

In the event that facts and circumstances indicate that the Company's property, plant and equipment or intangible assets including goodwill, may be impaired, an impairment test is performed. This is the case regardless of whether they are to be held and used or to be disposed of. An impairment loss is recognized when an asset's carrying amount exceeds the higher of its fair value less costs of disposal and its value in use. Value in use is based on the discounted cash flows expected to arise from the continued use of the asset or from its eventual disposal.

Any impairment loss resulting from this test is reported in other operating expenses. If there is any indication that the considerations which led to an impairment of property, plant and equipment or intangible assets no longer exist, the Company considers the need to reverse all or a portion of the impairment loss except for goodwill.

Government Grants

Taxable and non-taxable government grants for the acquisition of certain non-current assets are recognized as a reduction of the cost basis of the acquired or constructed assets. Non-refundable reimbursement of cost is recorded as other operating income or as a deduction from the related expenses if all the conditions stipulated are met.

Long-term Investments and Marketable Securities

In accordance with IFRS 9 the Company classifies all marketable securities and certain long-term investments (see note 15) as fair value through profit or loss (FVtPI). At the reporting date these financial instruments are carried at fair value.

Long-term investments and marketable securities are recognized on the settlement date. The Company derecognizes these assets when the contractual right to the cash flows expires or the assets are transferred and the Company retains no contractual rights to receive cash and assumes no obligations to pay cash from the assets.

Investments accounted for at Equity

Associated companies are companies over which ALTANA can exercise significant influence, which is generally the case when it holds between 20 % and 50 % of the voting power of the investee.

Joint ventures are joint arrangements of which two or more parties have joint control, meaning that decisions about the relevant activities require unanimous consent of the parties sharing control. Neither party has sole control, directly or indirectly.

Investments in associated companies and joint ventures are accounted for by applying the equity method in accordance with IAS 28, "Investments in Associates and Joint Ventures." The respective investment is initially recognized at cost and the carrying amount is increased or decreased to recognize ALTANA's share of changes in the investee's equity after the acquisition. ALTANA's share of profit or loss of the investee is recognized in the profit or loss while changes in the investee's other comprehensive income are recognized in the other comprehensive income. An impairment test is performed for investments in associated companies and joint ventures if there is an indication of impairment. Goodwill included in such investments is not tested for impairment separately. Instead, the entire carrying amount of the investment is tested for impairment. Therefore, impairment losses recognized are not allocated to goodwill but included in the investment and may be reversed completely in subsequent reporting periods.

Inventories

Inventories are measured at the lower of acquisition or manufacturing costs or net realizable value at the reporting date. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated cost of completion and the estimated selling expense. Acquisition and manufacturing costs are determined on the basis of weighted average costs. Manufacturing costs comprise material, payroll and directly attributable overhead costs, including depreciation and amortization.

Trade Accounts Receivable

Trade accounts receivable are initially recognized at their fair values. Subsequently, accounts receivable are measured at amortized cost.

In 2017, provisions for doubtful accounts were calculated based on the incurred loss model of IAS 39 as follows: non-collectable receivables were written off directly by adjusting their carrying amounts. Trade accounts receivable subject to individual as well as general loss allowance were examined individually and collectively whether any loss has occurred and, if necessary, a loss allowance was recognized. The main indicators for incurred losses, are the debtor's financial difficulties, the probability of insolvency and overdue payments.

In 2018, ALTANA applies the simplified approach (expected credit loss) pursuant to IFRS 9 to determine the expected credit loss, according to which the default is based on the lifetime expected credit loss. If there is objective evidence of a credit default (e.g. insolvency or delivery stop), an individual loss allowance for the respective receivables is recorded, although ALTANA further asserts the claim. In the event that receivables which have already been written off are recovered, this amount is recognized in profit or loss. Provisions for expected credit losses on receivables not individually impaired are determined on the basis of the customer group-specific maturity profile of trade accounts receivables. Receivables are grouped in time bands according to risk level and overdue periods. The historical default rates applied for this purpose are adjusted for forward-looking information such as economic market conditions and general future risks. ALTANA assumes an increased default risk in the valuation of receivables 30 days past due or more. The positive correlation between overdue payments and the probability of default is considered by the definition of time bands in the calculation of risk provisions per portfolio.

The effect of the initial application of the expected credit loss model is disclosed in note 28.

Cash and Cash Equivalents

ALTANA considers cash on hand and in banks and highly liquid investments with maturities of three months or less from the date of acquisition as cash and cash equivalents. The components of cash and cash equivalents are consistent with the financial resource fund in the cash flow statement.

Assets Held for Sale

An asset is classified as an asset held for sale if its carrying amount will be recovered principally through a sale transaction rather than through continuing use. Assets held for sale are measured at the lower of the carrying amount and fair value less costs of disposal and are presented in the statement of financial position as current assets. Depreciation and amortization on such assets is ceased. A gain or loss recognized on the sale of the assets is reported in other operating income or other operating expense.

Financial Instruments

In accordance with IFRS 9, the Company recognizes all financial assets and liabilities, as well as all derivative financial instruments, as assets or liabilities in the statement of financial position and measures all at fair value or amortized cost. Derivative financial instruments are initially recognized on their trade date, all other financial instruments on their settlement date. For financial instruments measured at fair value the following rules apply: The fair value of marketable securities corresponds to prices quoted for identical financial assets in active markets (hierarchy level 1). The fair value of derivative financial instruments and debts, allocated to other non-interest bearing non-derivative financial liabilities, is determined by applying valuation techniques for which inputs are based on observable market data (hierarchy level 2) or on unobservable input factors (hierarchy level 3).

Changes in the fair value of financial assets and financial liabilities not accounted for as a hedging instrument are recognized in profit or loss.

Changes in the fair value of derivative financial instruments qualifying for hedge accounting are recognized in profit or loss or in other comprehensive income depending on whether

the derivative is designated as a fair value or a cash flow hedge. For derivatives designated as fair value hedges, changes in the fair value of the hedged item and the derivative financial instrument are recognized in profit or loss.

For derivative financial instruments designated as cash flow hedges, changes in the fair value of the effective portion of the hedging instrument are recognized in other comprehensive income until the hedged item is recognized in profit or loss. The ineffective portion of derivative financial instruments designated as cash flow hedges and fair value changes of derivative financial instruments which do not qualify for hedge accounting are recognized in profit or loss immediately. The change in the spot element of a forward contract is designated as a hedging instrument in a hedging relationship. ALTANA elected to account for the cost of hedging in other comprehensive income. These are the forward element of a forward transaction and the foreign currency basis spreads. Hedge Accounting under IFRS 9 is applied beginning January 1, 2018 prospectively. At the inception of a hedge ALTANA documents the hedging relationship between the hedged item and the hedging instrument. Additionally, at the inception of the hedge and on an ongoing basis, the Company documents its assessment of whether the hedging instrument actually compensates the change in the fair value of the hedged item (assessing hedge effectiveness).

The effects from the initial application of IFRS 9 are disclosed in note 28.

Share-based Employee Incentive Plans

In line with long-term incentive programs, ALTANA has issued share-based instruments to employees and accounts for them in accordance with IFRS 2, "Share-based Payment." These instruments are therefore measured at fair value at the grant date, taking into account the vesting conditions upon which those instruments were granted. The cost of employee compensation is expensed over the required service period. Until settlement of the instruments in cash, the liability is remeasured at its fair value at each reporting date as well as at the exercise date. Changes in the fair value are recognized in profit or loss.

Employee Benefit Obligations

The accounting for pension liabilities is based on the projected unit credit method in accordance with IAS 19, "Employee Benefits," and the liabilities are measured based on actuarial valuations. Remeasurement gains or losses are fully recognized in other comprehensive income in the period they occur (see Consolidated Statement of Comprehensive Income). The provisions therefore generally equal the fair value of the obligations at the respective reporting dates.

Other Provisions

In accordance with IAS 37, "Provisions, Contingent Liabilities and Contingent Assets," the Company recognizes other provisions when it has a present legal or constructive obligation as a result of a past event, it is more likely than not that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The warranty provision is estimated based on the average warranty expenses of the last two to three years, depending on the division they relate to. Based on this experience, the Company calculates a warranty percentage, applies it to net product sales and recognizes the estimated obligation in the warranty provision. The provision is adjusted to reflect changes in

estimates. Other provisions include personnel related obligations measured in accordance with IAS 19.

Leases

In accordance with IAS 17 lease agreements in which ALTANA, as the lessee, assumes substantially all the risks and rewards are classified as finance leases. All other lease agreements are classified as operating leases and lease payments are expensed as incurred.

Use of Estimates, Assumptions and Judgements

The preparation of the consolidated financial statements requires management to make estimates, assumptions and judgements that affect the amounts of assets, liabilities and disclosure of contingent assets and liabilities reported at the end of any given period and the amounts of revenues and expenses for that reported period. Actual results may differ from these estimates.

At the reporting date, management mainly made the following key assumptions concerning the future and identified key sources of estimation uncertainty that might pose a risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

Employee Benefit Obligations: The measurement of the pension plans is based on the projected unit credit method applying current parameters as of the reporting date, including the expected discount rate, the rate of compensation and pension increase, and the return on plan assets as of the reporting date. A significant change in the underlying parameters could have a material impact on the defined benefit obligations (see note 25).

Impairments: Impairment testing for goodwill, other intangible assets and property, plant and equipment is generally based on discounted estimated future cash flows generated from the continuing use and ultimate disposal of the assets. Factors such as lower than anticipated operating income (EBIT) and resulting reduced net cash flows as well as changes in the discount rates used could lead to impairments. For information on the carrying amounts of goodwill, other intangible assets and property, plant and equipment see notes 13 and 14.

Deferred Taxes: The recognition of deferred tax assets requires that sufficient taxable income will be generated in the future that can be offset against tax credits and tax loss carryforwards. The recognition of deferred tax assets is subject to an estimate of various factors.

Management's judgement is based on expectations regarding future events and historical experience. This applies, for example, to assets held for sale. ALTANA examines whether these assets can be sold in their current condition and whether their sale is highly probable. If this is the case, the assets are reported separately in the statement of financial position in current assets.

3. Business
Combinations
and Disposals

In accordance with IFRS 3, "Business Combinations," the Company accounts for business combinations by applying the acquisition method as of the date when control over the financial and operating policies is effectively obtained. Any excess of the consideration transferred over the fair value of the net assets acquired is recorded as goodwill, which is allocated to those cash-generating units that are expected to benefit from the business combination. The results of operations of the acquired businesses are included in the Company's consolidated financial statements from the respective dates of acquisition until the dates of sale. Fair value

measurement of assets acquired and liabilities assumed in a business combination is performed in the course of the allocation of the consideration transferred by using standard discounted cash flow methods based on input factors of fair value hierarchy level 3.

Acquisitions in 2018

In 2018, no acquisitions occurred.

Acquisitions in 2017

In 2018, no significant adjustments to the purchase price allocations recorded in 2017 were made.

As agreed, further payments of €3.5 million were made to Changzhou Hongbo Paint Co. Ltd., Changzhou (CHN) in 2018 for the acquisition by an assets deal in the ELANTAS division (see note 24).

On December 23, 2016, ALTANA signed an agreement with U.S. Cytec Industries Inc., a subsidiary of the Belgian chemical group Solvay, regarding the acquisition of all shares in U.S. Cytec Olean Inc., Olean, NY (USA). Closing was effected on June 1, 2017. The acquired company, which had been integrated into the ELANTAS division, develops and manufactures insulating resins used in numerous applications in the electrical industry and as special adhesives. Of the purchase price of €48.3 million an amount of €40.6 million was paid in cash. The remaining amount which is subject to achieving a certain net sales threshold over a five year period subsequent to the acquisition, is recognized in debt until it is due for payment (see note 24). The recognized liability is based on the current net sales plan and reflects the expected earn-out payments, which are limited to a maximum amount of USD 22.6 million.

The following table provides an overview of the provisional allocation of the consideration transferred to the assets acquired and liabilities assumed by ALTANA at the acquisition date.

in € million	
Goodwill	26.7
Other intangible assets	20.6
Property, plant and equipment	6.8
Inventories	2.5
Other assets	0.1
Deferred tax liabilities	(8.4)
Consideration transferred	48.3

Based on the provisional allocation of the consideration transferred goodwill in the amount of €26.7 million was recognized. Since the acquisition the business has contributed €9.0 million to consolidated net sales and €0.6 million to consolidated net income. Had the company been acquired on January 1, 2017, their business would have contributed €16.6 million to consolidated net sales and €1.2 million to consolidated net income in 2017.

Additionally, on November 1, 2017, one smaller wire enamel business was acquired in the form of an asset deal by the ELANTAS division from Changzhou Hongbo Paint Co. Ltd.,

Changzhou (CHN). In 2016, net sales amounted to approximately €16 million. Of the purchase price of €5.8 million an amount of €1.5 million was paid in cash. The remaining purchase price which is subject to the occurrence of non-financial events, is recognized in debt until it is due for payment (see note 24). Goodwill amounting of €49 thousand was recognized.

On March 1, 2017, ALTANA acquired all shares in the U.S. PolyAd Services LLC, Earth City (USA), the German PolyAd Holdings Germany GmbH, Lampertheim and the PolyAd Services GmbH, Bensheim (in the following altogether PolyAd) through a share deal. The additive solutions business for the global plastic market will be integrated into the BYK division. The purchase price of €99.0 million was paid in cash.

The following table provides an overview of the provisional allocation of the consideration transferred to the assets acquired and liabilities assumed by ALTANA at the acquisition date.

in € million	
Goodwill	41.1
Other intangible assets	84.4
Property, plant and equipment	4.2
Inventories	9.5
Trade accounts receivable	8.4
Other assets	0.8
Cash and cash equivalents	0.3
Financial liabilities	(31.4)
Provisions	(1.3)
Trade accounts payable	(2.9)
Deferred tax liabilities	(10.7)
Other liabilities	(3.4)
Consideration transferred	99.0

Based on the provisional allocation of the consideration transferred, goodwill in the amount of €41.1 million was recognized. Of this amount €36.5 million are tax deductible. Since the acquisition the business has contributed €42.8 million to consolidated net sales and €3.0 million to consolidated net income. Had the company been acquired on January 1, 2017, its business would have contributed €51.8 million to consolidated net sales and €3.8 million to consolidated net income in 2017.

The expected synergies from the utilization of the worldwide distribution network of ALTANA, new technologies and the utilization of joint research activities mainly contribute to the good-will resulting from these acquisitions.

4. Net Sales

The methodology of the application of IFRS 15 is disclosed in note 2. Net sales are allocated to the divisions of ALTANA as follows:

		BYK	ECKART	ELANTAS	ACTEGA	ALTANA Group
Europe	2017	378,507	188,404	126,577	158,820	852,308
	2018	387,870	188,091	129,439	169,566	874,966
Americas	2017	301,230	89,965	90,787	141,647	623,629
	2018	302,204	88,103	93,463	140,622	624,392
Asia	2017	332,239	100,316	268,096	32,814	733,465
	2018	356,000	99,835	280,373	33,179	769,387
Other regions	2017	18,379	6,601	3,272	9,302	37,554
	2018	19,519	6,599	3,300	9,236	38,654
Gesamt	2017	1,030,355	385,286	488,732	342,583	2,246,956
	2018	1,065,593	382,628	506,575	352,603	2,307,399

Due to ALTANA's customer structure and the large number of business activities, there was no significant concentration on individual customers, regions or divisions in the reporting years.

In 2018 and 2017, ALTANA recognized revenue from contracts with customers amounting to \leq 2,307.4 million and \leq 2,247.0 million.

The refund liabilities from sales reductions amount to \leq 9.3 million and are reported in other provisions (see note 26) or other liabilities (see note 27).

5. Cost of Sales

Cost of sales include the following items:

	2017	2018
Material expenses	932,182	1,009,745
Production expenses		
Personnel expenses	216,503	224,579
Depreciation and amortization	83,837	83,851
Energy expenses	35,348	35,983
Maintenance and repair expenses	33,817	35,218
Other	69,886	74,251
	1,371,573	1,463,627

6. Selling and Distribution Expenses

Selling and distribution expenses are as follows:

	2017	2018
Personnel expenses	110,173	109,191
Shipping, duties, insurance	65,865	67,927
Commissions	22,574	23,582
Depreciation and amortization	27,103	25,503
Other	62,938	65,025
	288,653	291,228

Selling and distribution expenses reflect the worldwide activities of the distribution network, with specific emphasis on customer, product, and application consulting by own employees, delegates and agents. Selling and distribution expenses also include expenses for the participation in international trade fairs, the preparation of multilingual product information, customer trainings and sample distributions.

7. Other Operating Income

	2017	2018
Reversal of loss allowance	622	1,152
Gains on disposal of property, plant and equipment	381	3,787
Government grants	1,059	234
Insurance reimbursements	2,972	1,118
Reversal of provisions		785
Other	18,464	9,661
	23,498	16,737

In 2017, the item Other includes €10.8 million income relating to prior periods.

8. Other Operating Expenses

	2017	2018
Bad debt expense	1,022	3,435
Losses from disposal of property, plant and equipment	697	2,373
Foreign exchange gains / (losses), net	6,964	1,339
Exceptional expenses	1,004	1,387
Charitable donations	355	396
Other	3,317	1,895
	13,359	10,825

Foreign exchange gains and losses are as follows:

	2017	2018
Foreign exchange gains	8,236	9,840
Foreign exchange (losses)	(15,200)	(11,179)
Net gain / net (loss)	(6,964)	(1,339)

Exceptional expenses relate to the following:

	Notes	2017	2018
Impairment loss on property, plant and equipment	14	451	
Impairment loss on inventories		553	
Other			1,387
		1,004	1,387

In the ACTEGA division, one-off expenses of €2.5 million were incurred for a new facility in the U.S., initially planned but then abandoned in the 2018 financial year. These expenses are included in the losses from the disposal of property, plant and equipment and in the exceptional expenses.

Regarding the impairment loss on property plant and equipment recognized in 2017 see note 14. The ECKART division recognized an impairment loss on inventory as a result of an event of damage.

9. Financial Income

	2017	2018
Interest income	5,127	3,462
Gains on disposal of marketable securities	28	58
Income from fund-based financial instruments	724	985
Dividends received	305	303
Other financial income	908	90
	7,092	4,898

10. Financial Expenses

	2017	2018
Interest expenses	10,772	8,892
Losses on disposal of marketable securities	11	3
Other financial expenses	4,901	3,215
	15,684	12,110

In 2018 and 2017, respectively, foreign exchange losses of €1.8 million and €4.2 million are included in other financial expenses.

11. Income Taxes

Income tax expense is as follows:

	2017	2018
Current taxes	99,320	77,634
Deferred taxes	(27,938)	(537)
Income taxes	71,382	77,097

As in 2017, the combined income tax rate, derived from local subsidiaries, is 29 % and consists of the corporate tax rate of 15 %, the solidarity surcharge on corporate tax of 5.5 % and the trade tax of about 13 %. The trade tax rate is based on the weighted average of the collection rate of all German municipalities in which ALTANA operates business premises.

The following table provides the reconciliation between the expected and the effective income tax rate:

	2017	2018
Income before income taxes (EBT)	306,026	264,086
Income from at equity accounted investments	(21,301)	(24,460)
Income before income taxes - adjusted (EBT adjusted)	327,327	288,546
Tax expense applying the expected average income tax rate of 29 %	94,925	83,678
Non-deductible expenses	3,272	2,011
Tax rate differential	(22,864)	(5,157)
Tax free income	(1,838)	(1,652)
Tax related to prior years	409	(1,403)
Other	(2,522)	(380)
Income taxes	71,382	77,097
Effective income tax rate ¹	21.8 %	26.7 %

¹Based on the income before income taxes adjusted for the income from at equity accounted investments.

In 2017, the tax rate differential includes the effects of the U.S. tax reform.

In 2018 and 2017, the effective income tax rate based on income before income taxes was 29.2 % and 23.3 %, respectively.

Deferred tax assets and liabilities related to the following items in the statement of financial position:

		Dec. 31, 2017	Dec. 31, 2018		
	Assets	Liabilities and provisions	Assets	Liabilities and provisions	
Intangible assets	2,773	(87,671)	2,607	(89,284)	
Property, plant and equipment	1,747	(40,058)	2,079	(44,736)	
Long-term investments	212	(2,235)	289	(2,270)	
Inventories	14,474	(225)	15,641	(251)	
Receivables and other assets	8,054	(6,969)	6,258	(5,830)	
Marketable securities		(38)			
Employee benefit obligations	43,160	(960)	45,061	(937)	
Other provisions	5,365	(1,451)	4,960	(703)	
Liabilities	2,778	(359)	5,261	(4)	
Tax loss carry-forwards	2,888		3,949		
Outside bases differences		(7,092)		(7,056)	
Netting	(62,806)	62,806	(65,609)	65,609	
Deferred taxes, net	18,645	(84,252)	20,496	(85,462)	

The periods in which the tax loss carry-forwards may be used are as follows:

	2017	2018
Tax loss carry-forwards	37,579	38,358
unlimited	20,326	24,168
will expire through 2023 (prior year: 2022)	16,386	14,190
will expire after 2023 (prior year: 2022)	867	

Deferred tax assets on tax loss carry-forwards of €25.2 million and €28.9 million were not recognized as of December 31, 2018 and 2017, respectively, since the future utilization against taxable income is not probable. Tax loss carry-forwards for which no deferred tax assets were recognized amounting to €11.0 million have unlimited carry-forward periods, €14.2 million will expire through 2023.

As of December 31, 2018 and 2017, deferred tax liabilities in the amount of \leqslant 33.0 million and \leqslant 31.7 million, respectively, representing the temporary differences between the undistributed earnings of certain investments in subsidiaries and its tax bases, were not recorded, as the timing of their reversal can be controlled and is not probable in the foreseeable future.

12. Other Information Personnel Expenses on the Income Statement

Personnel expenses consist of the following items:

expenses for pensions and other post-retirement benefits	478,691	482,581
Expenses for pensions and other post-retirement benefits	21,933	20,940
Social security contributions	70,484	72,194
Wages and salaries	386,274	389,447
	2017	2018

Personnel expenses include expenses for employee incentive plans (see note 23). In 2018 and 2017, €2.3 million and €5.0 million, respectively, relate to the compensation plan for key members of the management, "ALTANA Equity Performance (AEP)," and €2.1 million and €2.5 million, respectively, to the compensation plan for employees, "ALTANA Profit Participation."

Personnel expenses were incurred for the following average number of employees:

	2017	2018
Number of employees by division		
ВҮК	2,160	2,278
ECKART	1,723	1,706
ELANTAS	1,028	1,072
ACTEGA	1,091	1,123
Holding	113	144
	6,115	6,323

Amortization, Depreciation and Impairment Loss

Amortization, depreciation and impairment charges for intangible assets and property, plant and equipment are as follows:

	2017	2018
Amortization of intangible assets	52,837	52,353
Depreciation of property, plant and equipment	80,800	82,488
Impairment loss on property, plant and equipment	451	
	134,088	134,841

For information on the impairment loss recognized on property, plant and equipment in 2017 see note 14.

13. Intangible Assets

	Patents,			
	licenses and		Software	
	similar rights	Goodwill	and others	Total
Cost				
Balance at Jan. 1, 2017	685,428	624,066	112,341	1,421,835
Additions	81,630		9,932	91,562
Disposals			(5,554)	(5,554)
Transfers			266	266
Translation adjustments	(43,584)	(59,649)	(2,274)	(105,507)
Change in reporting entities	110,486	67,879	206	178,571
Balance at Dec. 31, 2017	833,960	632,296	114,917	1,581,173
Additions	6,763		8,421	15,184
Disposals			(1,250)	(1,250)
Transfers	10		585	595
Translation adjustments	11,646	18,756	706	31,108
Change in reporting entities		(49)		(49)
Balance at Dec. 31, 2018	852,379	651,003	123,379	1,626,761
Accumulated amortization				
Balance at Jan. 1, 2017	360,360	51,592	87,090	499,042
Additions	43,195		9,642	52,837
Disposals			(5,535)	(5,535)
Transfers			(114)	(114)
Translation adjustments	(18,399)	(2,251)	(1,350)	(22,000)
Balance at Dec. 31, 2017	385,156	49,341	89,733	524,230
Additions	43,006		9,347	52,353
Disposals			(1,246)	(1,246)
Transfers			183	183
Translation adjustments	5,712	789	523	7,024
Balance at Dec. 31, 2018	433,874	50,130	98,540	582,544
Carrying amount				
Dec. 31, 2017	448,804	582,955	25,184	1,056,943
Dec. 31, 2018	418,505	600,873	24,839	1,044,217

In 2018, additions to patents, licenses and similar rights in the BYK and ECKART division related to acquired customer lists and to an agreement on non-competition with a former business partner amounting to \leqslant 3.6 million as well as REACH expenses amounting to \leqslant 3.2 million, which are mainly attributable to the BYK division. Additions of \leqslant 2.2 million related to SAP projects, carried out in the BYK division, the ACTEGA division and the Holding division.

In 2017, the ACTEGA division acquired from the Israeli Landa Labs (Landa Labs), Rehovot (ISR), the Nano-metallography-technology used for the application of metallic effects on different substrates for €80.0 million, of which €0.6 million relate to property, plant and equipment. Simultaneously a milestone payment depending on achieving a certain sales threshold and an earn-out-payment due at the latest in 2025 were agreed. At the date of payment this

will result in additional acquisition cost which will be capitalized. The earn-out-payment is determined as a multiple of gross profit. Furthermore, a technology portfolio was acquired for €1.3 million from the U.S. NuLabel Technologies Inc., East Providence (USA). Of this amount €0.1 million relate to property, plant and equipment. Simultaneously an earn-out-payment was agreed based on achieved net sales and gross profit thresholds. At the date of payment (at the latest in 2025) this will result in additional acquisition cost which will be capitalized. REACH expenses amounting to €2.1 million, which are mainly attributable to the BYK division were recognized in patents, licenses and similar rights.

In 2017, the change in reporting entities relates in the amount of \leq 125.5 million to the acquisition of PolyAd in the BYK division and in the amount of \leq 47.3 million to the acquisitions of Cytec Olean and in the amount of \leq 5.8 million to the acquisition from Changzhou Hongbo, both in the ELANTAS division (see note 3).

The following table presents expected amortization expense related to patents, licenses and similar rights as well as software for each of the following periods. The actual amortization expense may differ from the expected amortization expense:

2019	51,543
2020	47,499
2021	43,572
2022	40,364
2023	37,997
Thereafter	191,652

As of December 31, 2018 and 2017, patents, licenses and similar rights include brand names with indefinite useful lives of €24.6 million and €24.4 million, respectively, mainly relating to the brand name ECKART. The brand name was acquired in a business combination and the indefinite useful life was identified in the course of the purchase price allocation.

The following table presents the carrying amount of goodwill by cash-generating unit:

	Dec. 31, 2017	Dec. 31, 2018
ВҮК	336,784	351,148
ECKART	80,511	82,183
ELANTAS	99,733	101,157
ACTEGA	65,927	66,385
	582,955	600,873

Impairment Test for Goodwill

The Company performed impairment tests on goodwill. Impairment tests are performed at least once a year in the fourth quarter based on long-term planning. The recently performed tests were based on the financial budgets for the years 2019 to 2023. These budgets were based on historical experience and represent management's best estimates about future developments. The weighted average growth rates used in the budgets were derived from corresponding industry forecasts. In order to perform impairment tests, the Company estimated cash flows beyond the planning period by extrapolating the projections using a steady growth rate for subsequent years. The Company then calculated the fair value less costs of disposal for each cash-generating unit by applying the discounted cash flow method based on input factors of fair value hierarchy level 3. The following parameters which are unchanged to prior year were applied: discount rate after income taxes of 7.5 %; growth rates: BYK 2.0 %; ECKART, ELANTAS and ACTEGA 1.5 %. The fair value calculated was then compared to the carrying amount of the cash-generating unit.

The impairment tests were performed based on fair values less costs of disposal. Furthermore, to support the results of these impairment tests, the Company calculated the value in use for each cash-generating unit.

In 2018, no impairment loss on goodwill was recognized. Sensitivity analyses indicated that even a reasonably likely change in the significant underlying parameters would not result in an impairment loss in any division.

In the period since the performance of the impairment test until December 31, 2018, no impairment indicators were identified.

Impairment Test for Intangible Assets other than Goodwill

In 2018 and 2017, no impairment losses on intangible assets with an indefinite useful life were recognized.

14. Property, Plant and Equipment

	Land, leasehold and	Plant and		Advances / construction	
	buildings	machinery	Equipment	in progress	Total
Cost		-			
Balance at Jan. 1, 2017	587,242	728,760	217,767	51,934	1,585,703
Additions	9,623	15,684	15,560	55,535	96,402
Disposals	(521)	(6,336)	(9,025)	(499)	(16,381)
Transfers	5,635	13,595	9,260	(28,756)	(266)
Translation adjustments	(17,723)	(28,851)	(6,796)	(2,236)	(55,606)
Change in reporting entities	2,663	7,854	339	166	11,022
Balance at Dec. 31, 2017	586,919	730,706	227,105	76,144	1,620,874
Additions	37,841	28,790	18,217	86,956	171,804
Disposals	(2,623)	(17,092)	(8,099)	(2,201)	(30,015)
Transfers	19,745	18,748	4,524	(43,611)	(594)
Translation adjustments	4,135	8,166	2,175	1,131	15,607
Change in reporting entities	(75)				(75)
Balance at Dec. 31, 2018	645,942	769,318	243,922	118,419	1,777,601
Accumulated depreciation					
Balance at Jan. 1, 2017	222,340	437,302	144,648	345	804,635
Additions	19,631	45,050	16,119		80,800
Disposals	(230)	(5,944)	(8,826)		(15,000)
Impairment	449		2		451
Transfers	3377	(3,466)	203		114
Translation adjustments	(5,438)	(15,420)	(3,651)	(22)	(24,531)
Change in reporting entities					
Balance at Dec. 31, 2017	240,129	457,522	148,495	323	846,469
Additions	20,495	44,417	17,576		82,488
Disposals	(2,283)	(16,149)	(7,914)		(26,346)
Impairment					
Transfers	(2)	356	(534)	(3)	(183)
Translation adjustments	1,451	4,372	1,191	(3)	7,011
Change in reporting entities					
Balance at Dec. 31, 2018	259,790	490,518	158,814	317	909,439
Carrying amount					
Dec. 31, 2017	346,790	273,184	78,610	75,821	774,405
Dec. 31, 2018	386,152	278,800	85,108	118,102	868,162

In 2018, additions in the BYK division of €44.5 million relate to European facilities and of €40.6 million to U.S. facilities. An additional €22.1 million were invested in the Shanghai facility. Additions of €14.9 million in the ECKART division relate to its European facilities and additions of €5.5 million relate to several U.S. facilities. For the expansion of its production and laboratory capacities, the ELANTAS division invested €9.7 million in Germany and Italy, €7.2 million in the U.S. facility and additional €2.4 million in the Indian facility. To expand its research capacities the ACTEGA division invested €14.1 million in the European locations and €3.5 million in its U.S. locations.

In connection with investments ALTANA recognized directly attributable borrowing costs of €0.8 million. The calculation was based on an interest rate of 2.2 %.

In 2017, additions of \in 34.2 million related to European facilities and \in 14.5 million to U.S. facilities, both in the BYK division. An additional \in 4.5 million were invested into the Shanghai facility. Additions of \in 11.1 million in the ECKART division relate to its European facilities and additions of \in 3.7 million relate to several U.S. facilities. For the expansion of its production and laboratory capacities, the ELANTAS division invested \in 6.8 million in Germany and Italy and \in 2.1 million in India. To expand its research capacities the ACTEGA division invested \in 9.6 million in the German locations and \in 2.8 million in its U.S. locations.

In connection with investments ALTANA recognized directly attributable borrowing costs of €0.4 million. The calculation was based on an interest rate of 2.2 %.

Of the change in reporting entities an amount of \leq 4.2 million relates to the acquisition of PolyAd in the BYK division and an amount of \leq 6.8 million relates to the acquisition of Cytec Olean in the ELANTAS division (see note 3).

In 2018 and 2017, respectively, land and buildings with a book value of €0.1 million and €0.4 million related to investment property. In 2018 and 2017, respectively, the fair value of these investments amounted to €3.2 million and €2.3 million. The fair value is measured using the discounted cash flow method or external expert appraisals, by applying input factors for comparable assets not traded on active markets (fair value hierarchy level 2). No contractual obligations or disposal restrictions exist for land and buildings held as investment property.

The Company did not receive any significant taxable or non-taxable government grants in 2018 and 2017.

In 2018, no impairment loss was recognized. In 2017, the ECKART division recognized an impairment loss for an administration building in one European location due to a planned construction of a new building and for a damaged warehouse located in the U.S.

In the years reported, no land or other assets served as security for debts to banks.

15. Long-term Investments

Dec. 31, 2018	15,866	6,457	22,323
Dec. 31, 2017	8,955	54,272	63,227
Carrying amount			
balance at Dec. 31, 2018			0
Translation adjustments Balance at Dec. 31, 2018	0		0
Change in accounting policies	(758)		(758)
Balance at Dec. 31, 2017			
Translation adjustments			(103) 758
Balance at Jan. 1, 2017	861		861
Accumulated impairment			051
Balance at Dec. 31, 2018	15,866	6,457	22,323
Change in reporting entities		54	54
Change in fair value	74		74
Translation adjustments		186	297
Disposals	·	(71,068)	(71,068)
Additions	4,398	23,013	27,411
Change in accounting policies	1,570		1,570
Balance at Dec. 31, 2017	9,713	54,272	63,985
Change in reporting entities	(275)	(26)	(26)
Translation adjustments	(276)	(5)	(281)
Disposals		(141)	(141)
Additions	5,969	54,008	54,008
Cost Balance at Jan. 1, 2017	9,989	436	10,425
	Other investments	financial assets	Total
		Other long-term	

In 2017, ALTANA granted a long-term loan of €70.0 million to Israeli Landa Labs. As of December 31, 2017 an amount of €54.0 million was drawn. The loan is fully secured by shares in Landa and Landa Labs. In 2018 the loan was fully repaid.

In the years reported, no impairment losses were recognized.

In the years reported, an amount of \le 0.1 million of other long-term financial assets related to employee loans bearing a weighted average interest rate of 4.0 % in 2018 and 4.3 % in 2017.

In 2018, ALTANA granted a long-term loan of €6.2 million to an unrelated U.S. investment fund as part of a U.S. development program. The loan is included in other long-term financial assets. In return, ALTANA has received a loan of €8.6 million (see note 24).

16. Investments in at Equity Accounted Companies

	Investments in at
	equity accounted
	companies
	Сотранез
Balance at Jan. 1, 2017	83,388
Additions	30,446
Result from associates	(21,301)
Dividends	(756)
Translation adjustments	4,928
Balance at Dec. 31, 2017	96,705
Additions	50,500
Result from associates	(24,460)
Dividends	(660)
Translation adjustments	(4,216)
Balance at Dec. 31, 2018	117,869

Investments in associated companies are accounted for by applying the equity method.

Upon initial recognition in 2005, ALTANA's share in the net assets relating to its 39 % investment in Aldoro amounted to \leq 2.8 million, which resulted in the recognition of goodwill of \leq 4.4 million. In Brazil Aldoro produces metallic effect pigments and distributes them worldwide. The main emphasis of the business lies in the South American region.

At the time of acquisition of ALTANA's 33 % investment in Landa its share in the net assets amounted to €28.9 million. An amount of €80.5 million was allocated to development cost and no goodwill was identified. In 2016, 2017 and 2018, capital increases were effected, in which ALTANA participated with an amount of €91.3 million. In the capital increase agreed in June 2018 ALTANA participated with the amount of USD 100 million and paid the first tranche of USD 50 million (€42.5 million) in June 2018. The remaining payment will be made in January 2019 (see notes 34). Landa develops printing presses and consumables for the new nanography technology for water-based digital printing. With the delivery of the first beta machines the market launch was further advanced.

Investments in joint ventures are accounted for by applying the equity method of accounting. At the date of acquisition ALTANA's share of equity of its 44 % interest in dp polar amounted to €1.5 million. An amount of €2.0 million was allocated to development cost and no goodwill was recognized.

The following financial information relates to all associated companies and represents 100 % and not the respective proportionate share in the companies:

	Dec. 31, 2017	Dec. 31, 2018
Financial statement		
Non-current assets	41,994	58,064
Current assets	27,766	101,706
Total assets	69,760	159,770
Non-current liabilities	10,262	11,042
Current liabilities	17,328	21,647
Total liabilities and provisions	27,590	32,689
Net assets	42,170	127,081
Income statement	<u> </u>	
Net sales	14,551	14,887
Net income (EAT)	(63,841)	(71,634)
Other comprehensive income	-	-
Comprehensive income	(63,841)	(71,634)

The following table reconciles ALTANA's share in the net assets to the carrying amount of the investments in associated companies:

	Dec. 31, 2017	Dec. 31, 2018
Net assets (100 %)	42,170	127,081
The Company's share of net assets	14,717	42,941
Remaining adjustment from allocation of consideration transferred	76,925	76,615
Other	1,563	(4,851)
Carrying amount	93,205	114,705

17. Inventories

	Dec. 31, 2017	Dec. 31, 2018
Raw materials and supplies	115,686	135,656
Work in progress	30,483	33,066
Finished products and goods	183,359	203,810
Prepayments	642	495
	330,170	373,027

In 2018 and 2017, inventories are stated net of write-downs of \leq 20.7 million and \leq 21.4 million, respectively.

18. Trade Accounts Receivable

	Dec. 31, 2017	Dec. 31, 2018
Trade accounts receivable	376,104	391,427
Loss allowance	(4,193)	(7,247)
	371,911	384,180

The following table presents the roll-forward of the loss allowance:

	2017	2018
Allowance at the beginning of the year	4,452	4,193
Change in accounting policies (see note 28, credit risk)		1,672
Translation adjustments	(190)	49
Additions	1,022	3,278
Reversal	(622)	(1,152)
Utilization	(469)	(793)
Allowance at the end of the year	4,193	7,247

Impairment expenses recognized in profit or loss are as follows:

	2018
Amounts written off	157
Addition to loss allowance	3,278
Reversal of loss allowance	(1,152)
	2,283

The following table presents the roll-forward of the gross carrying amounts of accounts receivable:

	2018
Trade accounts receivable (gross) at Jan. 1	376,104
Translation adjustments	2,610
Additions	2,390,235
Disposals	(2,376,572)
Utilization of loss allowance	(793)
Amounts written off	(157)
Trade accounts receivable (gross) at Dec. 31	391,427

The exposure to credit risk as of December 31, 2018 in accordance with IFRS 9 and as of December 31, 2017 in accordance with IAS 39 was as follows:

Trade accounts receivable (including long-term portion)	Carrying amount	Of which neither impaired nor past due at the reporting date		Of which no	t impaired at the rep past due in the fo	_	Impairment (net)
			0-30 days	31-60 days	61-90 days	> 90 days	
Dec. 31, 2017	371,911	327,041	30,062	8,539	2,674	3,072	523

Trade accounts receivable (including long-term portion)	Carrying amount	Individually impaired receivables	Not individually impaired receivables			Thereof at the	reporting date
				not past due	0-30 day past due	31-90 days past due	> 90 days past due
Dec. 31, 2018							
Carrying amount - gross	391,427	5,447	385,980	337,246	34,509	10,095	4,130
Expected Loss Rate			0.56 %	0.18 %	1.61 %	6.59 %	7.87 %
Loss allowance	7,247	5,092	2,155	608	557	665	325
Net book value	384,180	355	383,825	336,638	33,952	9,430	3,805

As of December 31, 2018, the maximum carrying amount subject to credit risk amounts to €391.4 million.

19. Marketable Securities

In accordance with IFRS 9, marketable securities are measured at their fair value through profit or loss. Amortized cost, fair value and unrealized holding gains and losses, which are recorded in 2018 in profit or loss and in 2017 in shareholders' equity, net of income tax, were as fol-

lows (As of December 31, 2018 in accordance with IFRS 9 and as of December 31, 2017 in accordance with IAS 39):

	Amortized cost	Fair value	Unrealized gains	Unrealized losses
Dec. 31, 2017				
Money market funds	18,000	18,104	110	6
Share and equity funds	626	626		
	18,626	18,730	110	6

	Dec. 31, 2017	Dec. 31, 2018
Money market funds	18,104	21,782
Share and equity funds	626	125
	18,730	21,907

20. Short-term Financial Assets

Due to the interest rate development, ALTANA invested in cash equivalents with a remaining maturity of more than three months but less than one year. As of December 31, 2018 and 2017, €2.7 million and €2.1 million, respectively, were invested.

21. Other Assets

		Dec. 31, 2017		Dec. 31, 2018
	Other non- current assets	Other current assets	Other non- current assets	Other current assets
Balances due from employees	32	457	43	279
Cash surrender value of life insurance	1,978		1,976	
Balances due from fiscal authorities	327	24,021	253	27,174
Prepayments	3	3,810	3	3,090
Receivables from related parties		7		
Prepaid expenses	667	5,019	479	6,393
Derivative financial instruments	858	19,215	605	70
Notes receivable		56,833		59,056
Other	7,614	8,751	7,308	7,774
	11,479	118,113	10,667	103,836

22. Shareholders' Equity

Issued Share Capital

The share capital was €136,097,896, represented by 136,097,896 no-par value shares representing €1 per share. The share capital is fully paid in.

Additional Paid-in Capital

The additional paid-in capital contains excess amounts over the calculated value resulting from the issuance of shares of ALTANA AG and from equity-settled share-based payment transactions of previous years. Cash-inflows from the sale of shares to non-controlling interests are also included.

Dividends

In 2018, a dividend of €80.0 million was distributed to the shareholder. The Management Board and the Supervisory Board propose to the Annual General Meeting to carry forward the unappropriated retained earnings of €1,028.1 million of ALTANA AG.

Accumulated Other Comprehensive Income

Until December 31, 2017 in accordance with IAS 39, accumulated unrealized gains and losses resulting from changes in fair values of available-for-sale financial instruments net of income taxes were recorded in the item "Financial assets available-for-sale" unless an impairment loss was recognized.

Changes in the fair value of derivative financial instruments qualifying as cash flow hedges are recognized, net of income taxes, in the item "Derivative financial instruments" if all hedge accounting criteria under IAS 39 and IFRS 9 are met.

Notes on Other Comprehensive Income

The following table shows the income and expenses recognized in other comprehensive income and the income tax effects thereon:

			2017			2018
	Before income taxes	Income taxes	Net of income taxes	Before income taxes	Income taxes	Net of income taxes
Remeasurement of the net defined						
employee benefit obligation	11,237	(4,449)	6,788	5,311	(1,502)	3,809
Items that will not be reclassified subsequently to profit or loss	11,237	(4,449)	6,788	5,311	(1,502)	3,809
Translation adjustments (including non-controlling interests)	(113,863)		(113,863)	23,913		23,913
Gains and losses from financial assets available-for-sale	(17)	7	(10)			
Gains and losses from derivative financial instruments	61	(18)	43	(2,425)	728	(1,697)
Change in fair value of financial assets available-for-sale	24	(7)	17			
Change in fair value of derivative financial instruments	6,460	(1,938)	4,522	(4,360)	1,332	(3,028)
Items that may be reclassified subsequently to profit or loss	(107,335)	(1,956)	(109,291)	17,128	2,060	19,188
Other comprehensive income	(96,098)	(6,405)	(102,503)	22,439	558	22,997

Additional Disclosures on Capital Management

The capital management of ALTANA comprises the management of cash and cash equivalents, long-term investments, short-term financial assets and marketable securities, shareholders' equity and debt. The main objective is to ensure the availability of financial funds within the Group. The majority of ALTANA's operations are financed by the Company's operating cash flows. Excess funds required are financed by borrowings.

In 2018, ALTANA's shareholders' equity increased by \leq 130.4 million to \leq 2,344.6 million. The debt to asset ratio was at 27 %. Long-term and short-term debt represented 13 % and 14 % of total liabilities and equity.

Of the promissory note loans issued in prior periods totaling \in 350 million, \in 64 million were further repaid in 2018 resulting in a balance of \in 128 million. The loans have a minimum term until 2019. In addition, a syndicated credit line of \in 250 million with a term until 2022 is available to ALTANA.

The Company aims for a balance between equity and liabilities, which allows for further growth either through operational growth or acquisitions. Currently, the Company is not externally rated by a rating agency. The existing and the aspired financing structure – including bolt-on acquisitions – should be adequate for the requirements of an investment grade rating.

Foreign exchange restrictions exist for subsidiaries located in Brazil, India and China.

Non-controlling Interests

The following table provides financial information for the subsidiary ELANTAS Beck India. The amounts reported refer to 100 % and not to the share of 75 % held by ALTANA:

	Deck. 31, 2017	Dec. 31, 2018
Assets	51,424	57,683
Non-current assets	13,729	14,777
Current assets	37,695	42,906
Liabilities	11,163	11,471
Non-current liabilities	3,032	3,708
Current liabilities	8,130	7,763
Net sales	51,766	50,512
Net income (EAT)	7,317	7,900

In 2018 and 2017, respectively, net income of \leq 2.0 million and \leq 1.8 million related to non-controlling interests and dividends of \leq 0.1 million were distributed to them in both years. On December 31, 2018 and 2017, non-controlling interests held 25% of the shares.

23. Employee Incentive Plans

ALTANA Equity Performance (AEP)

Since 2010, ALTANA has offered a long-term share-based incentive plan for key members of the management every year. Each of these programs begins on January 1 and has a term of four years. The incentive plans provide for the issuance of so-called ALTANA Equity Performance Awards (AEP rights). ALTANA AG issues these debt instruments; their value develops similar to the virtual value of ALTANA's shareholders' equity. At the beginning of each incentive plan, a preliminary number of AEP rights, so-called AEP Awards, is granted to the key management members. The number of AEP Awards finally granted at the end of the plan depends on the development of the target value of the AEP rights up to the end of the plan's term. The maximum number is limited to 150 % of preliminarily granted AEP Awards. The awards will be settled at the determined value at the end of the particular plan's term. Payment is limited to a maximum of 250 % of the value of the preliminary awards granted.

The precondition for participating in the incentive plans is a personal investment in AEP rights, which is determined based on the key management category to which the beneficiary belongs. The participant must hold the personal investments for the entire duration of the plan. These AEP rights are subject to the same performance as the AEP Awards, however their increase in value is limited to a maximum of 20 % per year.

On December 31, 2017, at the end of the term of the AEP Tranche 2014, 18,572 AEP Awards were finally allocated which resulted in payments of €6.2 million to beneficiaries in 2018.

The following table provides the main parameters of the incentive plan:

	Initial fair value		
	Initial fair value in € per award	Awards granted	End of term
Tranche AEP 2015	309.04	8,841	31.12.2018
Tranche AEP 2016	255.17	11,441	31.12.2019
Tranche AEP 2017	366.03	8,597	31.12.2020
Tranche AEP 2018	370.99	8,855	31.12.2021

Total expenses recognized for all plans amounted to €2.3 million and €5.0 million in 2018 and 2017, respectively. Provisions amounted to €6.0 million and €9.5 million, as of December 31, 2018 and 2017, respectively. Total personal investment, which is reported in other liabilities, was measured at €5.0 million and €5.9 million as of December 31, 2018 and 2017 (see note 27).

ALTANA Profit Participation (APP)

At the end of 2010 ALTANA initiated an incentive plan for employees not eligible for the AEP plan. This incentive plan allows for annual purchases of ALTANA Profit Participation Rights (APPR).

The APPRs are debt instruments issued by ALTANA AG with a minimum term of four years. A basic interest rate of 3 % per year of the debt instrument is granted as well as an additional bonus interest rate if applicable. This bonus interest represents 150 % of the relative ALTANA Value Added. The latter corresponds to the excess return on capital employed (ROCE) generated by ALTANA in the respective financial year over the average cost of capital. Additionally, subscribers of APPRs were granted a one-time earnings-related country-specific payment.

As of December 31, 2018 and 2017, \leq 31.7 million and \leq 26.8 million, respectively, were recognized in other liabilities for the APPRs issued in 2018 and previous years. In 2018 and 2017, the one-time payment and the interest incurred resulted in an expense of \leq 2.1 million and \leq 2.5 million, respectively, which was recognized in personnel expenses.

24. Debt

		Dec. 31, 2017	Dec. 31, 2018		
	Non-current debt	Current debt	Non-current debt	Current debt	
Borrowings from banks	152	218	268	101	
Promissory note loans (German Schuldscheine)	128,000	64,000	48,000	80,000	
Lease obligations	229	204	46	183	
Other	6,592	4,847	14,645	2,357	
	134,973	69,269	62,959	82,641	

For general corporate financing purposes ALTANA uses different financing instruments. Currently, ALTANA has outstanding promissory notes (German Schuldscheine) for a total of €128 million. In addition, as of December 31, 2018, ALTANA has an undrawn syndicated credit line of €250 million which was issued by seven banks. Furthermore, as of December 31, 2018, largely unused lines of credit in the amount of €12.4 million were available to ALTANA. The terms and conditions are based on market conditions and no collateral is provided.

As of December 31, 2018 and 2017, bank borrowings included €0.1 million and €0.2 million, respectively, in foreign currencies denominated exclusively in USD.

The item Other includes the earn-out liability from the acquisition of Cytec Olean and the unpaid purchase price of the acquisition of Changzhou Hongbo Paint (see note 3). Also included is a loan of €8.6 million which ALTANA received from an U.S. investment fund (see note 15).

The following table provides information about the change in financial liabilities considering cash and non-cash effects:

	Non-current	Current
	debt	debt
Balance at Dec. 31, 2016	192,765	36,136
Changes in financial liabilities affecting cash flow	(1,892)	(65,422)
Acquisitions	6,997	36,414
non-cash changes		
Translation adjustments	1,103	(1,858)
Changes in maturity	(64,000)	64,000
Balance at Dec. 31, 2017	134,973	69,269
Changes in financial liabilities affecting cash flow	8,316	(64,144)
Acquisitions		(3,453)
non-cash changes		
Translation adjustments	534	105
Changes in maturity	(80,864)	80,864
Balance at Dec. 31, 2018	62,959	82,641

As of December 31, 2018 and 2017, the aggregate amounts of indebtedness maturing during the next five years and thereafter were as follows:

	Dec. 31, 2017	Dec. 31, 2018
Due in 2019 (prior year: 2018)	69,065	82,457
Due in 2020 (prior year: 2019)	82,327	49,530
Due in 2021 (prior year: 2020)	49,462	1,543
Due in 2022 (prior year: 2021)	1,462	1,543
Due in 2023 (prior year: 2022)	1,462	1,555
Due thereafter	31	8,743
Total	203,809	145,371
Lease obligation (see note 29)	433	229
Total debt	204,242	145,600

25. Employee Benefit Obligations

Defined Benefit Plans

The defined benefit obligation comprises unfunded and funded plans. Of these plans approximately 94 % relate to obligations in Germany, the Netherlands, and the U.S. as follows:

	Dec. 31, 2017	Dec. 31, 2018
Germany	279,109	284,407
The Netherlands	28,190	28,868
U.S.	17,996	15,979
Other	19,941	20,300
Defined benefit obligation	345,236	349,554

Domestic plans: Certain executives located in Germany are entitled to post-employment benefits ("Ruhegeldendbetrag"). The benefit is agreed individually and is paid out as a life-time pension upon reaching the age of 65, upon early retirement in accordance with statutory retirement provisions or in case of disability. The plan also covers surviving dependants' pension. All other German employees with an employment start date before January 1, 2010, participate in a post-employment benefit plan which also covers old age, disability and surviving dependants' pensions. The plan is basically based on a benchmark model considering length of service and salary with life-time pension payments beginning at the age of 65. Benefits granted from January 1, 1999 include a fixed annual increase of 1 % of the benefits, plans before that date grant compensation for inflation in accordance with section 16 of the German Company Pension Laws (BetrAVG). For ALTANA, the risk is mainly represented by the development of life expectancy and inflation since the obligations resulting from these plans represent life-time pension payments.

All employees with an employment start date after December 31, 2009 are in a plan which is based on a capital commitment (ALTANA Vorsorgekapital/AVK). ALTANA pays the employer's contributions into external investment funds until the benefits are paid out. ALTANA also offers an employee-funded plan that grants the employees the right to have part of their earnings paid into a company pension scheme (AltersvorsorgeAktiv mit ALTANA/AAA) which are increased by employer's contributions, as necessary. For this plan, too, the contributions are invested in external investment funds until pay-out (cf. AVK). The two post-employment benefit plans at ALTANA, AVK and AAA basically have the same features. ALTANA offers two models: a fixed income based model, where the Company guarantees a minimum interest yield on the contributions paid-in, corresponding to the interest rate

of life insurance contracts of 0.9 % as of the reporting date, and an equity-based model, where ALTANA guarantees the payment contributions made, but without any additional interest guarantee. Obligations under the AVK and AAA plans are linked to the development of the fund assets, which results in a reduction of the overall business risk exposure. The remaining risk ALTANA is exposed to, is represented by the risk that the performance of the funds does not cover the guaranteed minimum interest yield or the capital commitment. Foreign plans: In the Netherlands, one plan is offered whereby benefits depend on the years of service and the salaries received during those years of service. Upon retirement, guaranteed pension payments are granted. Additionally, the plans also cover benefits in case of death or invalidity. The employer pays premiums to an insurance company to finance these plans. Pension increases to be made are covered, on the one hand by surpluses of the insurer and, on the other hand, by further employer contributions, insofar ALTANA bears the risk of additional funding obligations.

In the U.S., ALTANA basically offers two employee benefit plans which are financed by funds and one additional defined benefit plan for executive employees, which is unfunded. These plans provide for pension payments upon retirement. New employees cannot participate in these plans. None of the funded plans provide for additional benefits in future years of service. The two funded defined benefit plans are managed by trustees. These plans are subject to minimum funding requirements. The risks related to these plans are represented by the change in actuarial assumptions and life expectancy. For example, a lower interest rate will result in higher pension obligations due to lower discounting, which in turn could result in higher fund provisioning. For the two funded plans, shares account for a relatively large portion of plan assets, in which case a higher return may be expected in the long-term, but which also bears a volatility risk. If the interest yield is lower than planned, fund financing will decrease and higher contributions might be required.

Post-employment benefit obligations, similar obligations and pension liabilities are rolled-forward as follows:

			Dec. 31, 2017			Dec. 31, 2018
	Domestic	Foreign	Total	Domestic	Foreign	Total
Defined benefit obligation - funded	71,573	62,153	133,726	75,311	62,387	137,698
Fair value of plan assets	71,564	49,667	121,231	75,309	53,914	129,223
Funded status	9	12,486	12,495	2	8,473	8,475
Defined benefit obligation - unfunded	207,537	3,973	211,510	209,095	2,761	211,856
Net defined benefit obligation	207,546	16,459	224,005	209,097	11,234	220,331
Provision for other post- retirement benefits		225	225		98	98
Reported amount	207,546	16,684	224,230	209,097	11,332	220,429

Balance at Dec. 31, 2018	349,554	(129,223)	220,331
Change in reporting entities			0
Pension payments	(8,853)	3,841	(5,012)
Beneficiaries of the plan	4,372	(4,372)	0
Employer		(10,781)	(10,781)
Contributions:			
Translation adjustment	1,333	(1,176)	157
	(12,215)	6,911	(5,304)
Experience-based adjustments	(5,866)		(5,866)
Gains / (losses) from changes in financial assumptions	(8,130)		(8,130)
Gains / (losses) from changes in demographic assumptions	1,781		1,781
Return on plan assets excluding amounts included in interest income		6,911	6,911
Remeasurement			
	19,681	(2,415)	17,266
Administration cost		249	249
Interest expense / (income)	7,312	(2,664)	4,648
Past service cost	(616)		(616)
Current service cost	12,985		12,985
Service cost		,	
Balance at Dec. 31, 2017	345,236	(121,231)	224,005
Change in reporting entities	227	2,047	227
Pension payments	(7,565)	2,847	(4,718)
Employer Beneficiaries of the plan	3,907	(3,907)	(7,192)
Contributions:		(7,192)	(7,192)
Translation adjustment	(3,629)	2,725	(904)
Translation adjustment	(9,092)	(2,215)	(11,307)
Experience-based adjustments	(1,520)	(2.245)	(1,520)
Gains / (losses) from changes in financial assumptions	(8,076)		(8,076)
assumptions	504		504
Gains / (losses) from changes in demographic		(2,215)	(2,215)
Return on plan assets excluding amounts included in interest income		(2.215)	(2.215)
Remeasurement		(=//	,
Administration Cost	20,292	(2,145)	18,147
Interest expense / (income) Administration cost	6,781	252	4,384 252
Past service cost		(2.207)	121
Current service cost	13,390		13,390
Service cost			42.200
Balance at Jan. 1, 2017	341,849	(112,097)	229,752
	benefit obligation	assets	Total
	Present value of the defined	Fair value of plan	

The following table presents the significant actuarial assumptions of the pension plans:

		Dec. 31, 2017				Dec. 31, 2018
	German plans	Dutch plans	U.S. plans	German plans	Dutch plans	U.S. plans
Discount rate	2.1%	2.1%	3.5 %	2.2 %	2.2 %	4.3 %
Rate of pension increase	1.8%	0.5 %		1.8 %	0.5 %	

As in the previous year, the discount rate for employee benefit and similar obligations was determined based on the "Mercer Yield Curve Approach."

The life expectancy in Germany is based on the "Richttafeln 2018 G," which were developed by Prof. Dr. Klaus Heubeck. In total, the application of the new mortality tables (RT 2018 G/RT 2005 G) leads to an increase in the provision in Germany by approximately €2.3 million.

For the Netherlands, the most recent mortality table, "AG Prognosetafel 2018/2017," is used, which is subject to age-related adjustments. The "RP-2014 Mortality Tables" are applied in the U.S. with appropriate updates and projections taken into account.

The following table shows the changes in the present value of the defined benefit obligation resulting from changes in the relevant actuarial assumptions with the other assumptions remaining unchanged. This means no possible correlation effects were considered. For the German plans an increase or decrease of life expectancy of one year is assumed for a person who is exactly 65 years old. For employees who are either younger or older than 65, a corresponding adjustment is made, i.e. the change in life expectancy of younger employees is more than one year and that of older employees is less than one year. For the plans in the Netherlands and the U.S. an age-independent shift in the employees' life expectancy is assumed as of the reporting date:

			Dec. 31, 2017		Dec. 31, 2018
			Effect on defined benefit obligation		Effect on defined benefit obligation
	Change in actuarial assumption	Defined benefit obligation	Change	Defined benefit obligation	Change
		in € thousand	in %	in € thousand	in %
Present value of the defined benefit obligation ¹		325,295	-	329,253	-
Discount rate	Increase by 50 basis points	302,719	(6.9)	307,267	(6.7)
	Decrease by 50 basis points	351,188	8.0	354,549	7.7
Rate of pension increase	Increase by 50 basis points	336,781	3.5	340,007	3.3
	Decrease by 50 basis points	315,166	(3.1)	318,975	(3.1)
Life expectancy	Increase by 1 year	334,377	2.8	336,826	2.3
	Decrease by 1 year	316,059	(2.8)	321,585	(2.3)

¹ Present value of the German, Dutch and U.S. plans applying the actuarial assumptions as stated in the table above

The following table shows the fair values of the plan assets per category:

			Dec. 31, 2017			Dec. 31, 2018
	Price quotation in an active market	No price quotation in an active market	Total	Price quotation in an active market	No price quotation in an active market	Total
Bonds	5,684		5,684	7,667		7,667
Money market funds	5,679		5,679	4,384		4,384
Mixed funds	65,735		65,735	70,850		70,850
Shares	7,204		7,204	7,271		7,271
Insurances		36,095	36,095		37,862	37,862
Cash and cash equivalents	650		650	977		977
Other		184	184		212	212
Fair value of plan assets	84,952	36,279	121,231	91,149	38,074	129,223

The domestic plan assets mainly comprise money market funds and mixed funds, while the foreign plan assets mainly comprise shares, debt instruments and insurances.

ALTANA aims to hedge future payments under the pension obligation with long-term returns from the portfolio of the plan assets. Therefore, the composition of the plan assets is geared to the sustainability of the income generated by increases in market values of the assets as well as dividends and interest income.

The actual return on the plan assets amounted to \leq 4.5 million (loss) and \leq 4.4 million (gain) for 2018 and 2017, respectively.

Plan assets do not include financial instruments issued by ALTANA or other assets or property used by the Company itself.

In 2019, the Company expects to pay benefits of \in 10.6 million to retirees compared to \in 10.7 million in 2018 and expects payments from plan assets of \in 5.4 million compared to \in 5.6 million in 2018. Contributions to plan assets by the employer are expected to be paid in an amount of \in 8.5 million in 2019 compared to \in 8.3 million in 2018. The expected expense for defined benefit plans including net interest expenses for 2019 is estimated to amount to \in 17.9 million and is unchanged to the estimate in 2018.

As of December 31, 2018 and 2017, the weighted average duration of the German, Dutch and U.S. employee benefit obligation is 19 years.

Defined contribution plans

Defined contribution plans mainly exist in non-German subsidiaries. Additionally, the Company pays contributions to domestic and foreign governmental and private pension insurance organizations in accordance with legal regulations. The contributions are recognized as expense based on their function in the respective year and amounted to €26.0 million and €24.4 million in 2018 and 2017, respectively. No further obligations exist besides the contributions paid.

26. Other Provisions

		Sales and			
	Employees	marketing	Warranty	Other	Total
Balance at Jan. 1, 2018	79,706	20,498	4,972	17,427	122,603
Additions	49,658	21,148	1,269	10,116	82,191
Accretion	271				271
Utilization	(61,908)	(19,022)	(1,177)	(9,233)	(91,340)
Reversal	(3,393)	(887)	(970)	(1,624)	(6,874)
Transfers	(5)			5	0
Translation adjustments	532	256	3	168	959
Balance at Dec. 31, 2018	64,861	21,993	4,097	16,859	107,810
Thereof non-current					
at Dec. 31, 2017	16,952	124		1,290	18,366
at Dec. 31, 2018	17,281	248		2,802	20,331

The employee-related provisions include provisions for employee incentive plans and bonuses. The non-current portion mainly relates to partial retirement (Altersteilzeit), anniversary benefits and employee incentive plans.

Provisions for sales and marketing pertain primarily to sales bonuses (refund liability from revenues) and commissions. As of January 1, 2018 and December 31, 2018, provisions for sales bonuses amounted to \in 8.7 million and \in 8.2 million, respectively. In 2018, \in 8.6 million were used and \in 0.3 million were released.

Provisions for warranty cover commitments in connection with goods delivered and services rendered. ALTANA expects that the current portion of the provisions will be utilized during 2019.

The item Other includes litigation, legal cost and professional fees, provision for taxes other than income taxes and contributions.

27. Other Liabilities

Other liabilities consist of the following:

		Dec. 31, 2017		Dec. 31, 2018
	Other non-current liabilities	Other current liabilities	Other non-current liabilities	Other current liabilities
Balances due to fiscal authorities (incl. payroll taxes)	13	12,058		11,733
Personnel-related liabilities		13,105		13,332
Social security contributions		2,940	446	3,502
Employee incentive plans	23,968	8,722	25,338	11,383
Credit notes to customers		1,154		1,598
Balances due to related parties		112		83
Derivative financial instruments		189	206	4,022
Deferred income	805	1,221	1,871	1,441
Refund liability				1,062
Other	1	7,964	1	5,359
	24,787	47,465	27,862	53,515

28. Additional Disclosures for Financial Instruments

Measurement of Financial Instruments Based on Categories

ALTANA uses different financial instruments. In accordance with accounting regulations for financial instruments, these financial instruments are classified based on their nature and function into several measurement categories. As a result of the initial application of IFRS 9 in 2018, financial assets are classified as follows: Debt instruments are classified as carried at amortized cost if the underlying business model objective is to hold assets to collect contractual cash flows and these cash flows are solely payments for principal and interest on the outstanding amount.

Financial instruments are classified as at fair value through profit or loss if the classification criteria of a debt instrument for amortized cost under IFRS 9 is not fulfilled, the financial instrument is a derivative financial instrument that hedge accounting is not applied to or in case of an equity instrument the OCI option is not exercised.

The changes in the classification and measurement of financial assets which were classified and measured in accordance with IAS 39 as of December 31, 2017 and the related effects on retained earnings resulting from the initial application of IFRS 9 as of January 1, 2018, are summarized in the following table. Classification and measurement of the financial liabilities remains unchanged.

"Available-for-sale financial asset – at cost" (AFS/AC) amounting to €9.7 million were reclassified to "Equity instruments at fair value through profit or loss" (EI/FVtPL). "Available-for-sale financial asset – at fair value" (AFS/FV) in the amount of €18.1 million were reclassified to "Debt instruments at fair value through profit or loss" (DI/FVtPL)

	Category and measurement ¹		Balance at Dec. 31, 2017 (IAS 39)	Remeasurement	Balance at Jan. 1, 2018 (IFRS 9)	Change in retained earnings
	IAS 39	IFRS 9				
Cash and cash equivalents	LaR / AC	DI/AC	275,671		275,671	
Short-term financial assets	LaR / AC	DI/AC	2,074		2,074	
Trade accounts receivable	LaR / AC	DI/AC	372,788	(1,672) ²	371,116	(1,672)
Other interest-bearing non- derivative financial assets	LaR / AC	DI / AC	55,616 19		55,616 19	
Other non-interest-bearing non- derivative financial assets	LaR / AC	DI/AC	58,296	(86) ²	58,210	(86)
	AFS / AC	DI / FVtPL	223		223	
Marketable securities and long-term investments	AFS / AC	EI / FVtPL	9,713	2,327 ³	12,040	2,327
	AFS / FV	DI / FVtPL	18,104		18,104	162 ³
Derivative financial assets - hedge accounting	HI / FV	HI / FVtOCI	4,907		4,907	
Derivative financial assets - without hedge accounting	FA / FVtPL	DI / FVtPL	15,078		15,078	
	FA / FVtPL	EI / FVtPL	88	119 ⁴	207	119

¹ Explanation of the abbreviations used:

LaR / AC: Loans and receivables / at amortized cost

AFS / AC: Financial assets available for sale / at cost

AFS / FV: Financial assets available for sale / at fair value

HI / FV: Hedging instruments / at fair value

FA / FVtPL: Financial assets (available for sale) / at fair value through profit or loss

DI / AC: Debt Instruments / at amortized cost

EI / FVtPL: Equity Instruments / at fair value through profit or loss

HI / FVtOCI: Hedging instruments / at fair value through other comprehensive income

DI / FVtPL: Debt instruments / at fair value through profit or loss

The following tables provide a reconciliation of the items in the statement of financial position to the different categories of financial instruments, their carrying amounts and fair values as of December 31, 2018 in accordance with IFRS 9 and as of December 31, 2017 in accordance with IAS 39.

The carrying amounts of cash and cash equivalents, short-term financial investments and trade accounts receivable approximate their fair values due to the short-term maturities of these instruments.

The carrying amounts of marketable securities and equity investments equal their fair values. For marketable securities traded on the stock exchange the fair values correspond to the quotation on the stock exchange (hierarchy level 1) at the reporting date. Investments not traded on the stock exchange are measured at fair value (hierarchy level 3). A sale of these investments is currently not planned.

The carrying amounts of derivative financial assets and liabilities equal their fair values. The fair values of interest bearing other non-derivative financial assets and liabilities measured at amortized cost equal the present values of their future estimated cash flows. The

 $^{^{\}rm 2}$ Remeasurement due to application of the impairment model

³ Remeasurement due to a change in the measurement category

⁴ Remeasurement due to change in measurement model

present values are calculated taking the currency, interest rates and duration parameters at each reporting date into consideration.

Trade accounts payable and other non-interest bearing non-derivative liabilities allocated to other current liabilities, generally have a short remaining maturity; therefore, their carrying amount approximates their fair value. Debt allocated to other non-interest bearing non-derivative financial liabilities essentially relate to earn-out payments in connection with the acquisition of Cytec Olean Inc. and represent fair values which are largely assigned to hierarchy level 3. The fair value of the earn-out payment depends on the achievement of certain sales targets. If the estimated sales change by +/- 10 %, the financial liability and the financial result will change by +/- €3.8 million. On January 1, 2018, the financial liability amounted to €11.4 million and on December 31, 2018 to €8.4 million. The change of the liability results from payments amounting to €3.5 million and from exchange rate effects of €0.3 million which are reported in other comprehensive income.

The fair value of loan receivables, other financial assets and liabilities and bank debt is measured at the present value of the expected cash inflows or cash outflows of the related financial instruments and is therefore allocated to hierarchy level 2. In principal, the fair value of derivative financial assets and liabilities is measured at the present value of the expected cash inflows or cash outflows of the related financial instruments and is therefore allocated to hierarchy level 2.

Derivative share options are measured at fair value through profit or loss and are assigned to hierarchy level 3. The fair value is determined using an option pricing model because the underlying value of the option is not a listed company and therefore no market-oriented volatilities or correlations are available. The Company uses the Black-Scholes-Modell employing the Magrabe-Formula to determine the fair value.

In measuring the options the company value and the variable purchase price are compared. The company value is determined based on discounted estimated future cash flows using an interest rate representing a market interest. The variable purchase price is a determined as multiplier of a profit target taking into account different scenarios.

The options have a term of multiple years.

As of January 1, 2018, the carrying amount of the derivative share option was \leq 0.2 million. Unrealized gains of \leq 0.4 million increased the carrying amount to \leq 0.6 million as of December 31, 2018 and are reported in the financial result.

					Dec. 31, 2017	Dec. 31, 2017
					Carrying amount	Fair value
	Loans and receivables	Available-for-sale	financial assets	Financial assets at fair value through profit or loss	Hedging instruments (hedge accounting)	
	at amortized cost	at cost	at fair value	at fair value	at fair value	
Cash and cash equivalents	275,671					275,671
thereof in						
Cash and cash equivalents	275,671					275,671
Short-term financial assets	2,074					2,074
thereof in						
Short-term financial assets	2,074					2,074
Trade accounts receivable	372,788					372,788
thereof in						
Trade accounts receivable	371,911					371,911
Other current assets	877					877
Other interest-bearing non-derivative financial assets	55,635					55,429
thereof in						
Long-term investments	54,140					53,934
Other current assets	1,495					1,495
Other non-interest-bearing non-derivative financial assets	58,296	223				58,519
thereof in						
Other non-current assets		223				223
Other current assets	58,296					58,296
Marketable securities and long-term investments		9,713	18,104			27,817
thereof in						
Long-term investments		9,087				9,087
Marketable securities		626	18,104			18,730
Derivative financial assets - hedge accounting					4,907	4,907
thereof in						
Other non-current assets					770	770
Other current assets					4,137	4,137
Derivative financial assets - without hedge accounting				15,166		15,166
thereof in						
Other non-current assets				88		88
Other current assets				15,078		15,078
	764,464	9,936	18,104	15,166	4,907	812,371

			Dec. 31, 2018	Dec. 31, 2018
			Carrying amount	Fair value
		Financial assets	Hedging instruments (hedge accounting)	
	at amortized cost	at fair value through profit or loss	at fair value	
Cash and cash equivalents	239,652			239,652
thereof in				
Cash and cash equivalents	239,652			239,652
Short-term financial assets	2,690			2,690
thereof in				
Short-term financial assets	2,690			2,690
Trade accounts receivable	384,844			384,844
thereof in				
Trade accounts receivable	384,180			384,180
Other current assets	663			663
Other interest-bearing non-derivative financial assets	6,273			4,736
thereof in				
Long-term investments	6,273			4,736
Other non-interest-bearing non-derivative financial assets	59,816	250		60,066
thereof in				
Other non-current assets		250		250
Other current assets	59,816			59,816
Marketable securities and long-term investments		37,957		37,957
thereof in				
Long-term investments		16,050		16,050
Marketable securities		21,907		21,907
Derivative financial assets - hedge accounting			8	8
thereof in				
Other current assets			8	8
Derivative financial assets - without hedge accounting		667		667
thereof in				
Other non-current assets		605		605
Other current assets		62		62
	693,275	38.874	8	730,620

			Dec. 31, 2017	Dec. 31, 2017
			Carrying amount	Fair value
	Financial liabilities	Financial liabilities at fair value through profit or loss	Hedging instruments (hedge accounting)	
	At			
	amortized cost	at fair value	at fair value	
Trade accounts payable	192,936			192,936
thereof in				
Trade accounts payable	191,782			191,782
Other current liabilities	1,154			1,154
Other interest-bearing non-derivative financial liabilities	192,482			198,400
thereof in				
Non-current debt	128,152			132,229
Current debt	64,218			66,059
Other current liabilities	112			112
Other non-interest-bearing non-derivative financial liabilities	6,229	11,439		17,668
thereof in				
Non-current debt		6,592		6,592
Current debt		4,847		4,847
Other current liabilities	6,229			6,229
Derivative financial liabilities - hedge accounting			19	19
thereof in				
Other non-current liabilities				
Other current liabilities			19	19
Derivative financial liabilities - without hedge accounting		170		170
thereof in				
Other current liabilities		170		170
	391,647	11,609	19	409,193

			Dec. 31, 2018	Dec. 31, 2018	
			Carrying amount	Fair value	
	Financial liabilities Hedging instruments (hedge accounting)				
	at amortized cost	at fair value	at fair value		
Trade accounts payable	196,260			196,260	
thereof in					
Trade accounts payable	194,662			194,662	
Other current liabilities	1,598			1,598	
Other interest-bearing non-derivative financial liabilities	137,097			137,764	
thereof in					
Non-current debt	56,913			56,901	
Current debt	80,101			80,780	
Other current liabilities	83			83	
Other non-interest-bearing non-derivative financial liabilities	5,479	8,357		13,836	
thereof in					
Non-current debt		6,000		6,000	
Current debt		2,357		2,357	
Other current liabilities	5,479			5,479	
Derivative financial liabilities - hedge accounting			2,795	2,795	
thereof in					
Other non-current liabilities			206	206	
Other current liabilities			2,589	2,589	
Derivative financial liabilities - without hedge accounting		1,433		1,433	
thereof in					
Other current liabilities		1,433		1,433	
	338,836	9,790	2,795	352,088	

Income Effect According to Measurement Categories

The following table provides the net result from financial instruments according to the measurement categories. The net financial result contains interest income, interest expense, gains and losses from the sale of financial instruments, dividends received and, additionally, changes in the fair value of derivative financial instruments not designated in a hedging relationship. The net financial result reported only includes income and expense related to financial instruments and their categories. Interest expense from employee benefit and lease obligations as well as changes in the fair values and interest recognized in connection with hedge accounting are therefore not included. The net operating result includes losses on trade accounts receivable.

2017	Net financial result	Net operating result	Net result
Loans and receivables	(20,077)	(400)	(20,476)
Available-for-sale financial assets	2,032		2,032
Financial liabilities measured at amortized cost	(5,879)		(5,879)
Financial instruments at fair value through profit or loss	20,097		20,097
Total	(3,826)	(400)	(4,226)

In 2017, the net financial result includes interest income generated by financial instruments measured at amortized cost amounting to \leq 4.4 million and interest expense incurred by financial instruments measured at amortized cost amounting to \leq 5.9 million. Interest income and interest expense are measured by applying the effective interest method.

	Net financial result	Net operating result	Net result
2018			
at amortized cost	4,518	(2,437)	2,082
at fair value through profit or loss	1,507		1,507
Derivatives at fair value through profit and loss	(6,994)		(6,994)
Total	(968)	(2,437)	(3,405)

In 2018, the net financial result includes interest income generated by financial instruments measured at amortized cost amounting to \leqslant 3.2 million and interest expense incurred by financial instruments measured at amortized cost amounting to \leqslant 3.9 million. Interest income and interest expense are measured by applying the effective interest method. In 2018, no gains and losses from the disposal of financial instruments at amortized cost were realized.

Impairment losses on financial instruments at amortized cost amount to \leq 3.5 million. Of this amount \leq 3.4 million relate to trade accounts receivable.

Risk Analysis

Liquidity Risk: To assure the solvency and financial flexibility of ALTANA, the Company retains a liquidity reserve through cash and cash equivalents and lines of credit.

The following tables show the contractual amortization including the undiscounted interest payments for non-derivative and derivative financial instruments with a positive and a negative fair value. All non-derivative and derivative financial instruments as of December 31, 2018 and 2017, respectively, for which contractual payments had already been agreed, are included. Variable interest payments resulting from non-derivative financial instruments were estimated based on the interest rates applicable at the respective reporting dates. Budgeted amounts for future expected liabilities were not considered. Foreign currency amounts were translated based on the exchange rates as of the reporting dates. The cash flows attached to the foreign currency derivatives were calculated based on the respective forward rates.

		Due within one year	Due within two years	Due within three years	Due within four years	Due within five years	Due after five years
Trade accounts payable	Dec. 31, 2017	192,936					
	Dec. 31, 2018	196,260					
Other interest-bearing non-derivative							
financial liabilities	Dec. 31, 2017	67,977	82,051	49,200	30	30	30
	Dec. 31, 2018	82,202	49,200	43	43	55	8,743
Other non-interest-bearing non-							
derivative financial liabilities	Dec. 31, 2017	11,075	2,297	1,432	1,432	1,432	
	Dec. 31, 2018	7,836	1,500	1,500	1,500	1,500	
Irrevocable credit commitments and other financial contingent liabilities	Dec. 31, 2017	19,607					
	Dec. 31, 2018	4,003					
Total	Dec. 31, 2017	291,595	84,348	50,632	1,462	1,462	30
	Dec. 31, 2018	290,301	50,700	1,543	1,543	1,555	8,743

		Due within one year	Due within two years	Due within three years	Due within four years	Due within five years	Due after five years
Forward foreign exchange contracts with positive fair value		·	 -				
Cash inflow	Dec. 31, 2017	233,349	19,647				
Cash outflow	Dec. 31, 2017	(214,770)	(19,236)				
Net	Dec. 31, 2017	18,579	411				
Cash inflow	Dec. 31, 2018	6,945	2,637				
Cash outflow	Dec. 31, 2018	(440)					
Net	Dec. 31, 2018	6,505	2,637				
Forward foreign exchange contracts with negative fair value							
Cash inflow	Dec. 31, 2017	53,018					
Cash outflow	Dec. 31, 2017	(53,912)					
Net	Dec. 31, 2017	(894)					
Cash inflow	Dec. 31, 2018	74,538	17,627				
Cash outflow	Dec. 31, 2018	(15,876)					
Net	Dec. 31, 2018	58,662	17,627				

Credit Risk: The Company is exposed to credit risk if business partners do not fulfill their obligations. ALTANA continuously analyzes the creditworthiness of significant debtors. Based on its international operations and a diversified customer structure ALTANA has no concentration of credit risk. The Company does not generate sales of more than 3 % with one single customer and generates less than 20 % with its ten most significant customers combined. Receivables are monitored locally in the operating subsidiaries on an ongoing basis. Financing transactions are mainly carried out with contractual partners who have a credit rating of "Investment Grade." Furthermore, rating-based credit limits are defined for each contracting party that ALTANA invests with.

The carrying amount of all trade accounts receivable (see also note 18), marketable securities, long-term investments, cash and cash equivalents and other current and non-current assets represents ALTANA's maximum credit risk.

IFRS 9 requires the calculation of the expected credit risk for financial assets measured at amortized cost.

ALTANA considers an expected credit loss on trade accounts receivables on the basis of the lifetime expected credit loss as these receivables do not contain a significant financing components. As of January 1, 2018, this resulted in an effect from the initial application of €1.7 million

As of December 31, 2018, other receivables and assets include bills receivable from Chinese customers in the amount of \in 59.2 million for which a risk provision of \in 0.2 million was recognized. Due to this low credit risk, ALTANA uses this option: The expected credit default is determined on the basis of an expected loss within 12 months ("low credit risk assets"). As of January 1, 2018, this resulted in an effect from initial application of \in 0.1 million. As of January 1, 2018, the total amount of bills receivable subject to a credit risk amounted to \in 56.9 million.

The maximum credit risk exposure for each measurement category is as follows:

	Dec. 31, 2018
Exposure applying the impairment model	
Financial assets - at amortized cost	693,275
Exposure without application of the impairment model	
Financial assets - at fair value through profit or loss	38,874
Total	732,149

The reconciliation of the loss allowance for financial assets under IAS 39 (incurred loss) to IFRS 9 (expected loss) is as follows:

	Dec. 31, 2017	Remeasurement	Jan. 1, 2018
at amortized cost (IAS 39) - at amortized cost (IFRS 9)	4,193	1,758	5,950
at acquisition cost (IAS 39) - at fair value through profit or loss (IFRS 9)	758	(758)	0

As of the reporting date no significant agreements reducing the maximum credit risk and no financial assets existed, that were credit-impaired when purchased.

Currency Risk: The Company is subject to currency risk associated with its international operations. Currency risk occurs for financial instruments which are denominated in another than the functional currency. Foreign currency translation risk resulting from the consolidation of foreign subsidiaries is not considered. For hedging instruments used by the Company to limit the exposure to foreign currency rate fluctuations see "Hedging."

The main currency fluctuation risks relate to exchange rate changes of the USD, JPY and CNY compared to the Euro.

The following table provides the effects of a 10 % quantitative change of currency exchange rates on profit or loss and other comprehensive income for the item "Derivatives and other financial instruments" (see table "Foreign Currency" in note 2):

		Effect on profit or loss		compi	Change in other rehensive income
		exchange rate plus 10 %	exchange rate minus 10 %	exchange rate plus 10 %	exchange rate minus 10 %
Derivatives					
USD	Dec. 31, 2017	19,427	(19,427)	3,075	(3,075)
	Dec. 31, 2018	(109)	109	3,945	(3,945)
JPY	Dec. 31, 2017	1,052	(1,052)	2,816	(2,816)
	Dec. 31, 2018	477	(477)	3,479	(3,479)
CHF	Dec. 31, 2017	280	(280)		
	Dec. 31, 2018	801	(801)		
CNY	Dec. 31, 2017				
	Dec. 31, 2018	373	(373)		
Total	Dec. 31, 2017	20,759	(20,759)	5,891	(5,891)
	Dec. 31, 2018	1,541	(1,541)	7,424	(7,424)

		Effect on profit or loss		
		exchange rate plus 10 %	exchange rate minus 10 %	
Other financial instruments				
USD	Dec. 31, 2017	(20,945)	20,945	
	Dec. 31, 2018	(6,107)	6,107	
JPY	Dec. 31, 2017	(1,164)	1,164	
	Dec. 31, 2018	(1,504)	1,504	
Total	Dec. 31, 2017	(22,109)	22,109	
	Dec. 31, 2018	(7,611)	7,611	

Interest Rate Risk: ALTANA is exposed to changes in interest rates. The majority of interest-sensitive assets and liabilities are marketable securities (money market funds) and debt. For those assets or liabilities that are variable rate instruments, changes in the interest rate will result in changes in the expected cash flows and will affect profit or loss. The fair value of fixed

interest rate financial assets and liabilities measured at fair value through profit and loss is affected by changes in the interest rate and the resulting change in the fair value is reported in profit or loss.

The following table shows the profit or loss effect as well as changes in other comprehensive income on interest-bearing assets and liabilities resulting from a change in the average market rate of interest of 50 basis points. The sensitivity analysis was performed under the assumption that the interest rate may decrease to below zero percent. The effect on interest rate fluctuations on forward foreign exchange derivatives is insignificant.

		Effect o	on profit or loss	Change in othe comprehensive incom		
		plus 50 basis points	minus 50 basis points	plus 50 basis points	minus 50 basis points	
Other financial	2 24 2247		(0)		(0.1)	
instruments	Dec. 31, 2017	8	(8)	91	(91)	
	Dec. 31, 2018	117	(117)			

Hedging

ALTANA has established policies and procedures for assessing risks related to derivative financial instrument activities and uses derivative financial instruments exclusively for hedging purposes.

Forward Foreign Exchange Contracts: The Company uses forward foreign exchange contracts to hedge foreign currency exchange risks resulting from intercompany loans, accounts receivable and forecast transactions of subsidiaries with external counterparties. Hedging instruments with maximum terms of up to 18 months are used to hedge forecast transactions of subsidiaries in USD and JPY and are recognized as cash flow hedges. In accordance with the ALTANA hedging strategy, 75 % of the forecast transactions of the first six months, 60 % of the following six months, and 30 % of the subsequent six months of the forecast transactions are hedged. The volume of the hedged transactions as described above is reduced when the occurrence of the transactions is not highly probable. Currently, the maturity dates of these contracts are less than two years. Furthermore, forward foreign exchange contracts are used to hedge the foreign exchange risk attached to intercompany loans denominated in foreign currencies.

Cash Flow Hedges

Hedging of Anticipated Sales Denominated in Foreign Currencies: ALTANA has entered into forward foreign exchange contracts for forecast sales transactions denominated in USD and JPY for its subsidiaries and has designated them as cash flow hedges. At December 31, 2018 and 2017, the fair values are as follows:

		Positive fair value	Negative fair value	Total fair value
USD	Dec. 31, 2017	1,647	(1)	1,646
	Dec. 31, 2018	7	(1,674)	(1,666)
JPY	Dec. 31, 2017	2,265		2,265
	Dec. 31, 2018	1	(1,121)	(1,120)

Amounts relating to forward foreign exchange contracts are reclassified from accumulated other comprehensive income to profit or loss when the hedged item is realized. In 2018 a decrease in fair value of €4.8 million and in 2017 an increase in fair value of €6.5 million, respectively, was recognized in other comprehensive income. In 2018 and 2017, respectively, €2.4 million (increase in net sales) and €0.1 million (reduction in net sales), were reclassified from other comprehensive income to net sales. Ineffectiveness may occur in the context of hedging relationships. This is of minor importance for ALTANA and results exclusively from credit risk of the counterparties of the hedging transactions.

The following table shows the nominal amount and the carrying amount of the hedging transactions as well as the change in fair value of the underlying transaction and hedging instrument to determine their ineffectiveness. In addition, the amount reported in other comprehensive income for the designated and undesignated components in equity is disclosed.

	Nominal amount	Fair value	Change in fair value to identify ineffectiveness		Hedging / Cost of Hedging Res for Cash Flow Hed			5 5
			hedging underlying active instrument transaction		active		discontinued	
2018					designated component	non- designated component	designated component	non- designated component
Derivative assets								
thereof								
USD	1,501	7	7	(8)	17	(9)		
JPY	1,136	1	1	(1)	3	(2)	26	
Derivative liabilities								
thereof								
USD	36,241	(1,674)	(1,674)	1,570	(1,008)	(675)	(29)	(135)
JPY	32,493	(1,121)	(1,121)	1,153	(939)	(46)		

The following table shows the average hedging rate, the forecast cash flows of the hedged transactions which corresponds to the maturities of the forward foreign exchange transactions.

		Total nominal amount	Nominal amount due in 2019 (prior year: 2018)	Nominal amount due in 2020 (prior year: 2019)	average hedging rate
USD	Dec. 31, 2017	35,571	23,330	12,241	1.13
	Dec. 31, 2018	46,126	33,203	12,923	1.22
JPY	Dec. 31, 2017	3,498,000	2,279,000	1,219,000	123.74
	Dec. 31, 2018	4,375,000	3,122,000	1,253,000	130.10

The following table shows the gains or losses from cash flow hedges resulting from ineffectiveness, other adjustments (premature termination or rebalancing) and reclassifications to profit and loss due to realizations.

	gains / losses recognized in equity	Ineffectiveness recognized in profit and loss	Item of the statement of comprehensive income for recording ineffectiveness		on from the CFH fit or loss due to	Item in the statement of comprehensive income that contains the reclassification
2040				adjustment of the hedging relationship	realization	
2018						
Currency risk hedging	(2,797)		Other operating expenses / income		2,967	Net sales

The following table shows the development for the current reporting year for other comprehensive income from foreign currency cash flow hedges:

	designated component	non-designated component
Balance at Dec. 31, 2017	4,468	0
Change in fair value of derivative financial instruments	(2,973)	(1,386)
Reasons for reclassification:		
Realization of the underlying transaction	(2,943)	518
Balance at Dec. 31, 2018	(1,448)	(868)

Fair Value Hedges

Hedging of Contracted Sales Denominated in Foreign Currencies: With the initial application of IFRS 9 as of January 1, 2018 fair value hedges were discontinued.

At December 31, 2017, in accordance with IAS 39 ALTANA designated forward foreign exchange contracts with a nominal value of USD 8.0 million and of JPY 731.0 million, respectively, as fair value hedges. The fair value of these hedging instruments amounted to \leq 0.4 million for the USD derivatives and \leq 0.6 million for the JPY derivatives. These contracts relate to sales transactions denominated in USD and JPY with subsidiaries. In 2017, the effect of the fair value hedge on profit or loss amounted to \leq 0.6 million and thereby offset the effect of the measurement of the hedged transactions.

Hedging of Intercompany Foreign Currency Loans and Receivables

In 2018, ALTANA entered into forward foreign exchange contracts with a nominal value of USD 325.3 million (2017: USD 247.5 million), of JPY 600.0 million (2017: JPY 700.0 million), of CHF 11.0 million (2017: CHF 4.0 million), of GBP 7.0 million (2017: GBP 5.0 million) and of CNY 66.0 million to hedge intercompany foreign currency loans and receivables for which no offsetting items existed. These forward foreign exchange contracts which serve as economic hedge of the foreign currency exchange rate risk are not designated in a hedging relationship that qualifies for hedge accounting and consequently, changes in their fair values are recognized in the financial result.

		Positive	Negative	Total
		fair value	fair value	fair value
USD	Dec. 31, 2017	14,317	(146)	14,171
	Dec. 31, 2018	57	(879)	(822)
JPY	Dec. 31, 2017	533		533
	Dec. 31, 2018		(272)	(272)
CHF	Dec. 31, 2017	228	(5)	223
	Dec. 31, 2018	4	(234)	(230)
GBP	Dec. 31, 2017		(19)	(19)
	Dec. 31, 2018			
CNY	Dec. 31, 2017			
	Dec. 31, 2018	1	(48)	(47)

Offsetting of Financial Instruments

Under the German Master Agreement for Financial Futures all derivative financial instruments that ALTANA has concluded are subject to offsetting agreements, which allow for offsetting in event of default by one party. The amounts reported in trade accounts receivable and trade accounts payable result from credit notes issued and received. The following tables present the amounts of the financial assets and financial liabilities actually offset in the statements of financial position as well as potential offsetting amounts under global netting and other offsetting agreements:

		Gross carrying amount	Offsetting amounts, offset in the statements of financial position	Net carrying amount	Potential off- setting amounts, not offset in the statements of financial position	Net amount after potential offsetting
Receivables from forward	D 24 2047	40.005	·	40.005	400	10.706
exchange transactions	Dec. 31, 2017	19,985		19,985	189	19,796
	Dec. 31, 2018	70		70	21	49
Trade accounts receivable	Dec. 31, 2017	380,580	8,669	371,911		371,911
	Dec. 31, 2018	393,803	9,623	384,180		384,180
Total	Dec. 31, 2017	400,565	8,669	391,897	189	391,707
	Dec. 31, 2018	393,873	9,623	384,251	21	384,229

		Gross carrying amount	Offsetting amounts, offset in the statements of financial position	Net carrying amount	Potential off- setting amounts, not offset in the statements of financial position	Net amount after potential offsetting
Liabilities from forward exchange transactions	Dec. 31, 2017	189		189	189	0
	Dec. 31, 2018	4,227		4,227	21	4,206
Trade accounts payable	Dec. 31, 2017	193,145	1,363	191,782		191,782
	Dec. 31, 2018	195,895	1,233	194,662		194,662
Total	Dec. 31, 2017	193,334	1,363	191,971	189	191,782
	Dec. 31, 2018	200,122	1,233	198,889	21	198,868

29. Commitments and Contingencies

Guarantees and Other Commitments

	Dec. 31, 2017	Dec. 31, 2018
Purchase commitments for intangible assets	718	1,535
Purchase commitments for property, plant and equipment	41,325	48,016
Guarantee for pension obligation from divestments	8,762	8,434
Irrevocable credit commitments	16,000	
Other contingent financial liabilities	3,607	4,003
	70.412	61.988

In 1995, the Company sold its Dietetics business line. In accordance with the German Civil Code, the Company remains liable for the pension commitments for holders of annuities and prospective beneficiaries since the sale was consummated as an asset deal. The Company is obliged to make payments on demand of the former employees, but has the right of refund from the acquirer according to the purchase agreement. No payments have been requested so far.

The irrevocable loan commitment relates to the long-term loan that ALTANA granted to Landa Labs in 2017 which was fully repaid in 2018 (see note 15). No such commitment exists in 2018

Rental and Lease Arrangements

The Company rents and leases property and equipment used in its operations. The rental and lease contracts expire on various dates in the future.

Future minimum lease payments for non-cancelable operating and finance leases are:

		Finance lease		Operating lease	
	Dec. 31, 2017 Dec. 31, 2018		Dec. 31, 2017	Dec. 31, 2018	
2019 (prior year: 2018)	208	185	11,796	11,130	
2020 (prior year: 2019)	185	46	8,544	7,373	
2021 (prior year: 2020)	46		5,481	4,967	
2022 (prior year: 2021)			3,475	2,970	
2023 (prior year: 2022)			2,188	2,225	
Due thereafter			6,145	18,898	
Total minimum lease payments	439	231	37,629	47,563	
Less amount representing interest	6	2			
Present value of lease payments	433	229			
Less current portion	204	183			
Non-current lease obligation	229	46			

Total rent and lease expense was €18.8 million and €16.8 million for the years ended December 31, 2018 and 2017, respectively.

30. Related Party Transactions

Members of the Boards of ALTANA AG and SKion GmbH, the sole shareholder of the Company, as well as their close family members are considered related parties. Apart from the compensation as disclosed in note 31 and the regular dividends distributed to SKion GmbH no other business relationship existed, with the exception of a \leq 47 thousand reimbursement of costs incurred for the capital increase in Landa.

Mrs. Susanne Klatten is the sole shareholder of SKion GmbH and deputy chairwoman of the Supervisory Board of ALTANA AG. Mrs. Klatten is also shareholder and member of the Supervisory Board of Bayerische Motoren Werke AG (BMW) and shareholder and chairwoman of the Supervisory Board of SGL Carbon SE.

Other SKion GmbH investments include Envio Group, Eliquo Water Group and SKion Water International Group.

Associated companies in which ALTANA holds an ownership interest but which are not included in the consolidated financial statements and investments accounted for at equity are also considered related parties. Receivables and liabilities resulting from transactions with those related parties are reported in other assets and other liabilities.

The following table presents all balances and transactions with related parties:

	Dec. 31, 2017	Dec. 31, 2018
Receivables from related parties	46	84
Balances due to related parties	650	735

	2017	2018
Related party transactions		
Sales	403	500
Other income		48
Services and goods acquired	1,707	1,754
Lease expense	2,421	2,315

In 2018 and 2017, ALTANA purchased or leased company cars from the BMW Group. The relevant lease and purchase contracts were all concluded at arm's length.

The lease expense relates to leasing contracts for company cars with Alphabet Fuhrpark-management GmbH (BMW Group). In 2018 and 2017, further transactions with BMW Group are included in revenues in the amount of ≤ 0.4 million and ≤ 0.3 million, respectively.

31. Compensation of the Supervisory Board and Management Board The compensation of the Supervisory Board is governed by section 18 of ALTANA AG's articles of association. The amount of the compensation is based on the tasks and responsibilities of the Supervisory Board members and on the size and economic success of the Company. The compensation is comprised of a fixed and a variable component. The variable component is determined based on the operating income (EBIT) of ALTANA.

In 2018 and 2017, respectively, compensation of the Supervisory Board amounted to \in 1.1 million and \in 1.2 million of which \in 0.5 million and \in 0.6 million related to variable compensation and \in 0.6 million related to fixed compensation in both years. The salary paid to employee representatives, in addition to the compensation paid out to them related to their function as Supervisory Board members is at arm's length.

The amount of the compensation of the Management Board members of ALTANA AG is based on the size of the Company, its economic and financial situation, as well as on the amount and structure of the management board compensation in comparable companies. In addition, the scope of duties, the experience and the contribution of the respective Management Board member, as well as the compensation structure that otherwise exists in the Company are taken into account when assessing compensation. In the process of determining the compensation, the Supervisory Board uses compensation studies and works with an external expert.

The compensation of the Management Board is largely based on performance. It consists of a fixed component, variable bonuses (short-term bonus and long-term bonus) and a component with a long-term incentive. The predominant part of the variable compensation of the Management Board has a multi-year assessment basis. In addition to the compensation in cash, the Management Board members are entitled to post-employment benefits and receive compensation in kind, primarily in the form of company car usage and insurance premiums.

The short-term bonus for 2018 was determined on a one-year basis. It is based on the development of earnings before interest, taxes and depreciation and amortization (EBITDA) as well as the return on capital employed (ROCE), each in comparison to the respective target values established by the Supervisory Board. The long-term bonus 2018 was calculated based on the development of net income after cost of capital ("ALTANA Value Added") over a period of three years. In 2018, as a component with long-term incentive, the Management Board members were granted AEP Awards under the "ALTANA Equity Performance 2018" (AEP) plan. None of the members of the Management Board was entitled to special benefits in the case of premature or regular termination of their engagement.

In 2018 and 2017, total compensation paid in cash to the Management Board including remuneration in kind amounted to \in 3.7 million and \in 4.2 million, respectively, of which \in 1.6 million and \in 1.6 million related to fixed compensation, and \in 2.1 million and \in 2.6 million related to variable compensation. On December 31, 2018 and 2017, provisions for post-employment benefits of \in 3.3 million and \in 3.5 million were recognized; the corresponding service cost amounted to \in 0.5 million and \in 0.6 million, respectively.

In 2018, the Management Board members received AEP Awards as compensation with a long-term incentive effect from the "ALTANA Equity Performance 2018" (AEP) plan. In 2018 and 2017, a preliminary number of 1,941 and 1,869 AEP Awards, respectively, were granted to the Management Board, with a value of \leq 0.7 million in the both years. The final number of AEP Awards as well as the payout amount at the end of the four-year term of the plan depends on the development of the company value. In 2018, at the end of the term of the AEP Tranche 2014, 2,127 AEP Awards were finally allocated, resulting in payments of \leq 0.7 million to the beneficiaries. In 2017, at the end of the term of the AEP Tranche 2013, 1,751 AEP Awards were finally allocated, resulting in payments of \leq 0.6 million to beneficiaries. As of December 31, 2018 and 2017, respectively, provisions for AEP Awards amounted to \leq 1.3 million and \leq 1.4 million; personal investment was measured at \leq 0.8 million and \leq 0.9 million, and is recognized in other liabilities (see note 27). In the years reported, these amounts include deposits made by the members of the Management Board of \leq 0.4 million each. For more details on the AEP see note 23.

For former members of the Management Board and their surviving dependants, a pension provision in the amount of €18.0 million and €19.6 million was recorded as of December 31, 2018 and 2017, respectively. Pension payments totaled €1.3 million and €1.4 million, respectively.

32. Fees Paid to the Auditor

	2018
Audit of the financial statements	1,486
Other assurance services	38
Tax advisory services	52
Other services	64
	1,640

33. Subsequent Events

On January 3, 2019, the second tranche of the capital increase of USD 50 million resolved in June 2018 was paid to Landa.

34. Additional Information

Companies that are exempt from publishing their financial statements according to section 264 (3) and section 264b of the German Commercial Code (HGB):

ALTANA Management Services GmbH, Wesel

ALTANA Newco I GmbH, Wesel

Eckart International Trading GmbH, Wesel

BYK-Chemie GmbH, Wesel

MIVERA Vermögensanlagen GmbH, Wesel

Weseler Grundstücksverwaltungs B.V. & Co. KG, Wesel

BYK-Gardner GmbH, Geretsried

ECKART GmbH, Hartenstein

ALTANA Chemie Beteiligungs GmbH, Hartenstein

ECKART Beteiligungs GmbH, Hartenstein

Hartensteiner Verwaltungs B.V. & Co. KG, Hartenstein

ELANTAS GmbH, Wesel

ELANTAS Europe GmbH, Hamburg

ACTEGA GmbH, Wesel

ACTEGA DS GmbH, Bremen

ACTEGA Metal Print GmbH, Lehrte

ACTEGA Rhenania GmbH, Grevenbroich

ACTEGA Terra GmbH, Lehrte

Supervisory Board of ALTANA AG

Dr. Klaus-Jürgen Schmieder

Chairman

(appointed until the Annual General Meeting 2019) Former Member of the Management Board of L'Air Liquide S.A.

Ulrich Gajewiak*

Deputy Chairman

(appointed until the Annual General Meeting 2023) Head of Complaints Management of BYK-Chemie GmbH

Chairman of the Group's works council

Susanne Klatten

Deputy Chairwoman

(appointed until the Annual General Meeting 2023)

Entrepreneur

Other functions:

Bayerische Motoren Werke AG¹ SGL Carbon SE¹ (Chairwoman) UnternehmerTUM GmbH²

Dr. Anette Brüne*

(appointed until the Annual General Meeting 2023) Head of Marketing & Sales Services of BYK-Chemie GmbH

Dr. Monika Engel-Bader

(appointed until the Annual General Meeting 2022) Former Managing Director of Chemetall Consultant Other functions:

Euler Hermes Deutschland AG¹

OXEA S.à.r.l.²

OXEA Holding GmbH²

Armin Glashauser*

(appointed until the Annual General Meeting 2023) Full-time head of works council ECKART GmbH

Olaf Jung*

(until March 15, 2018)

Staff member production ACTEGA DS GmbH

Klaus Koch*

(appointed until the Annual General Meeting 2023) Manager operational controlling ECKART GmbH

Dr. Lothar Steinebach

(until March 15, 2018)

Former Management Board member of

Henkel AG & Co. KGaA

Other functions:

Carl Zeiss AG¹

Diem Client Partner AG²

Ralf Schmitz GmbH & Co. KGaA1

thyssenkrupp AG1

Beate Schlaven

(since March 15, 2018 appoited until the Annual General Meeting 2023)

Employee Quality Management ACTEGA Rhenania GmbH

Dr. Jens Schulte

(since March 15, 2018 appoited until the Annual General Meeting 2023)

Member of the Management Board of Schott AG

Other functions: NNAISENSE S.A.²

^{*} Employee representative

¹ Membership in other statutory supervisory boards

² Membership in other comparable domestic and foreign supervisory bodies

Dr. Antonio Trius

(appointed until the Annual General Meeting 2022)
Former Managing Director of Cognis GmbH
Other functions:
Azelis S.A.²
Cuantum Medical Cosmetics S.L.²
Lonza Group AG ²
MAXAM SL²

Stefan Weis*

(appointed until the Annual General Meeting 2023) Secretary of the Board of the Mining, Chemical and Energy Industrial Union (IG BCE)

Dr. Matthias L. Wolfgruber

(appointed until the Annual General Meeting 2021)
Former Chairman of the Management Board of
ALTANA AG
Other functions:
ARDEX GmbH² (Chairman)
Cabot Corporation²
Grillo Werke AG¹
LANXESS AG¹ (Chairman)

^{*} Employee representative

¹ Membership in other statutory supervisory boards

² Membership in other comparable domestic and foreign supervisory bodies

Supervisory Board Committees

The Supervisory Board of ALTANA AG has established the following committees:

Human Resources Committee

Dr. Klaus-Jürgen Schmieder (Chairman)

Ulrich Gajewiak

Olaf Jung (until March 15, 2018)

Susanne Klatten

Beate Schlaven (since March 15, 2018)

Audit Committee

Dr. Lothar Steinebach (Chairman until March, 15, 2018)

Dr. Jens Schulte (Chairman since March 15, 2018)

Armin Glashauser

Dr. Antonio Trius

Stefan Weis

Mediation Committee

(in accordance with section 27 (3) of the German

Codetermination Act)

Dr. Klaus-Jürgen Schmieder (Chairman)

Ulrich Gajewiak

Susanne Klatten

Klaus Koch

Management Board of ALTANA AG

Martin Babilas

Chairman (appointed until May 2, 2020)

Other functions:

ACTEGA North America Inc.²

BYK-Chemie GmbH¹ (Chairman)

ECKART GmbH¹ (Chairman)

ELANTAS Beck India Ltd.² (Chairman)

ELANTAS Europe Srl.²

ELANTAS PDG Inc.² (Chairman)

ELANTAS (Tongling) Co., Ltd. ²

Stefan Genten

(appointed until July 31, 2023)

Other functions:

ELANTAS Beck India Ltd²

Dr. Willmar Schwabe GmbH & Co. KG²

Dr. Christoph Schlünken

(appointed until October 31, 2022)

Other functions:

ACTEGA Metal Print GmbH²

ALTANA QUÍMICOS MÉXICO S. Servicios de R.L. de C.V.²

BYK Additives (Shanghai) Co., Ltd.² (Chairman)

BYK-Chemie GmbH¹

BYK USA Inc.² (Chairman)

ECKART GmbH¹

PolyAd Services LLC²

¹ Membership in other statutory supervisory boards

² Membership in other comparable domestic and foreign supervisory bodies

Contact

ALTANA AG
Corporate Communications
Abelstr. 43
46483 Wesel, Germany
Tel +49 281 670 -10900
Fax +49 281 670 -10999
press@altana.com

Credits

Publisher
ALTANA AG
Abelstr. 43, 46483 Wesel, Germany
Tel +49 281 670 -8
Fax +49 281 670 -10999
info@altana.com
www.altana.com

This report was prepared with the support of the editorial system of the firesys GmbH.

ALTANA AG Abelstr. 43 46483 Wesel, Germany Tel +49 281 670 - 10990 Fax +49 281 670 - 10999

