O ALTANA

Management Board Responsibility Statement Independent Auditors' Report Consolidated Financial Statements 2020

Management Board Responsibility Statement

The Consolidated Financial Statements 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 14 - 18 of the Corporate Report 2020.

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 24, 2021

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, 2020, 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, 2020 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, 2020. 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, 2020, and of its financial performance for the financial year from January 1 to December 31, 2020, 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 statement of corporate governance pursuant to § 289f Abs. 4 HGB included in section "Declaration on Corprorate Governance" of the Group Management Report
- the Corporate Governance Report included in section "Declaration on Corprorate Governance" of the Group Management 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 Mmanagement 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 26, 2021

PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft

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

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ALTANA Group Consolidated Income Statement

	Notes	2019	2020
in € thousand			
Net sales	4	2,248,943	2,178,160
Cost of sales	5	(1,424,750)	(1,357,135)
Gross profit		824,193	821,025
Selling and distribution expenses		(290,285)	(284,838)
Research and development expenses		(165,572)	(163,365)
General administration expenses		(105,090)	(104,805)
Other operating income ¹	6	12,108	11,800
Other operating expenses ¹	7	(12,869)	(94,076)
Operating income (EBIT)		262,485	185,741
Financial income	8	19,871	4,677
Financial expenses	9	(11,983)	(8,827)
Financial result		7,888	(4,150)
Income from at equity accounted investments		(39,090)	(38,900)
Income before income taxes (EBT)		231,283	142,691
Income taxes	10	(62,234)	(67,544)
Net income (EAT)		169,049	75,147
thereof attributable to non-controlling interests		1,620	1,872
thereof attributable to the shareholder of ALTANA AG		167,429	73,275

¹ Additions to and reversals of loss allowances relating to accounts receivable are reported net, prior year amounts were adjusted accordingly.

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ALTANA Group Consolidated Statement of Comprehensive Income

	2019	2020
in € thousand		
Net income (EAT)	169,049	75,147
Remeasurement of the net defined employee benefit obligation	(29,460)	(14,536)
Income taxes	8,856	3,989
Items that will not be reclassified subsequently to profit or loss	(20,604)	(10,547)
Translation adjustments	37,077	(117,281)
thereof attributable to non-controlling interests	(91)	(1,469)
Gains and losses from derivative financial instruments	2,513	3,622
Change in fair value of derivative financial instruments	(3,364)	(308)
Income taxes	231	(994)
Items that may be reclassified subsequently to profit or loss	36,457	(114,961)
Other comprehensive income	15,853	(125,508)
Comprehensive income	184,902	(50,361)
thereof attributable to non-controlling interests	1,520	396
thereof attributable to the shareholder of ALTANA AG	183,382	(50,757)

ALTANA Group Consolidated Statement of Financial Position

Assets	Notes	Dec. 31, 2019	Dec. 31, 2020
in € thousand			
Intangible assets	12	1,023,882	933,084
Property, plant and equipment	13	970,837	959,476
Long-term investments	14	45,732	48,964
Investments in at equity accounted companies	15	138,316	89,064
Deferred tax assets	10	21,980	29,167
Other non-current assets	20	10,900	10,737
Total non-current assets		2,211,647	2,070,492
Inventories		348,847	336,381
Trade accounts receivable	17	380,644	400,457
Income tax refunds		15,361	12,805
Other current assets	20	97,521	99,285
Marketable securities	18	19,961	24,311
Short-term financial assets	19	4,768	5,699
Cash and cash equivalents		264,556	313,692
Total current assets		1,131,658	1,192,630
Total assets		3,343,305	3,263,122

Total liabilities, provisions and shareholders' equity		3,343,305	3,263,122
		-36,370	418,505
Other current liabilities	26	57,525 438,576	70,419 418,509
Other current provisions	25	93,592	95,745
Current accrued income taxes		42,513	55,005
Trade accounts payable		182,457	186,562
Current debt	23	62,489	10,778
Total non-current liabilities		425,323	445,684
Other non-current liabilities	26	28,941	24,199
Deferred tax liabilities	10	68,721	71,198
Other non-current provisions	25	20,894	28,965
Employee benefit obligations	24	255,974	272,716
Non-current debt	23	50,793	48,606
Shareholders' equity	21	2,479,406	2,398,929
Non-controlling interests		12,960	13,240
Equity attributable to the shareholder of ALTANA AG		2,466,446	2,385,689
Accumulated other comprehensive income		107,907	(5,585
Retained earnings		2,071,165	2,103,900
Additional paid-in capital		151,276	151,276
Share capital ¹		136,098	136,098
in € thousand			
Liabilities, provisions and shareholders' equity	Notes	Dec. 31, 2019	Dec. 31, 2020

¹ Share capital consists of 136,097,896 no-par value shares.

ALTANA Group Consolidated Statement of Changes in Shareholders' Equity

	Share	e capital issued		I	Retained earnings	
	Number	Share	Additional	Retained	Remeasure- ment of the net defined em- ployee benefit	
	of shares	capital	paid-in capital	earnings	obligation	
in € thousand						
Balance at Jan. 1, 2019	136,097,896	136,098	151,276	2,075,166	(100,835)	
Other comprehensive income					(20,595)	
Net income (EAT)				167,429		
Comprehensive income				167,429	(20,595)	
Dividends paid				(50,000)		
Balance at Dec. 31, 2019	136,097,896	136,098	151,276	2,192,595	(121,430)	
Other comprehensive income					(10,540)	
Net income (EAT)				73,275		
Comprehensive income				73,275	(10,540)	
Dividends paid				(30,000)		
Balance at Dec. 31, 2020	136,097,896	136,098	151,276	2,235,870	(131,970)	

	controlling interests	Non-c		Accumulated other comprehensive income		
Shareholders' equity	Translation adjustments	Shareholders' equity	Equity attrib- utable to the shareholder of ALTANA AG	Translation adjustments	Derivative financial instruments	
2,344,617	(2,950)	14,503	2,333,064	72,956	(1,597)	
15,853	(91)	(9)	15,953	37,168	(620)	
169,049		1,620	167,429			
184,902	(91)	1,611	183,382	37,168	(620)	
(50,113)		(113)	(50,000)			
2,479,406	(3,041)	16,001	2,466,446	110,124	(2,217)	
(125,508)	(1,469)	(7)	(124,032)	(115,812)	2,320	
75,147		1,872	73,275			
(50,361)	(1,469)	1,865	(50,757)	(115,812)	2,320	
(30,116)		(116)	(30,000)			
2,398,929	(4,510)	17,750	2,385,689	(5,688)	103	

ALTANA Group Consolidated Statement of Cash Flows

	Notes	2019	2020
in € thousand			
Net income (EAT)		169,049	75,147
Depreciation and amortization of intangible assets and property, plant and equipment	12, 13	149,241	154,593
Impairment of intangible assets and property, plant and equipment	12, 13	4,068	85,621
Change in fair value of financial assets and securities	8, 9	(2,851)	(1,266
Net result from the disposal of intangible assets and property, plant and equipment	6, 7	433	(198
Net result from the disposal of long-term investments and marketable securities	8, 9	17	(443)
Change in inventories	16	29,572	11,853
Change in trade accounts receivable	17	6,265	(26,031
Change in income taxes	10	(12,341)	8,276
Change in provisions	24, 25	12,058	12,455
Change in trade accounts payable		(14,156)	7,817
Change in other assets and other liabilities	20, 26	9,561	6,549
Other	15	35,425	39,271
Cash flow from operating activities		386,341	373,644
Capital expenditure on intangible assets and property, plant and equipment	12, 13	(157,180)	(105,223
Proceeds from the disposal of intangible assets and property, plant and equipment	12, 13	798	4,380
Acquisitions, net of cash acquired	3	(8,587)	(106,091
Purchase of long-term investment and investments in at equity companies	14, 15	(47,569)	(6,314
Proceeds from the disposal of long-term investments	14	26	33
Payments on long-term loans		(16,000)	
Purchase of marketable securities	18	(42,500)	(37,078
Proceeds from the disposal of marketable securities	8, 9	44,296	31,906
Expenditure on short-term financial assets		(2,131)	(1,575
Cash flow from investing activities		(228,847)	(219,962

	Notes	2019	2020
in € thousand			
Dividends paid		(50,113)	(30,116)
Proceeds from issuance of long-term debt	23	3,924	
Payments on short-term debt	23	(88,455)	(69,819)
Cash flow from financing activities		(134,644)	(99,935)
Effect of exchange rate changes		2,054	(4,611)
Change in cash and cash equivalents		24,904	49,136
Cash and cash equivalents as of January 1	2	239,652	264,556
Cash and cash equivalents as of December 31	2	264,556	313,692
Additional information on cash flows included in the cash flows from operating activities			
Income taxes paid		(86,590)	(78,027)
Interest paid		(3,621)	(3,152)
Income taxes received		16,365	14,353
Interest received		10,390	1,228
Dividends received		809	782

Notes to Consolidated Financial Statements

1. Basis of Presentation The Consolidated Financial Statements of ALTANA AG and its subsidiaries (the "Company" or "ALTANA") as of December 31, 2020 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 24, 2021 and should be approved by the Supervisory Board in the Supervisory Board meeting on March 17, 2021.

ALTANA as a worldwide 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, products for the 3D printing sector, 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. Rounding may result in minor deviations of totals and percentages.

2. Significant Accounting Policies

Consolidation

The Consolidated Financial Statements of the Company include 22 (prior year: 22) subsidiaries in Germany and 46 (prior year: 42) subsidiaries abroad, over which ALTANA either directly or indirectly exercises control. All consolidated subsidiaries either have the same reporting date or prepare interim financial statements as of the reporting date of the Company.

In 2020, the ACTEGA division acquired two Swiss and one U.S. company through a share deal. The ECKART division acquired one British company through a share deal.

ALTANA holds 75.0 % 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 investments are accounted for by applying the equity method of accounting (see note 15): 39.0 % interest in Aldoro Indústria de Pós e Pigmentos Metálicos Ltda. (Aldoro), São Paulo (BRA), 33.3 % interest in Landa Corporation Ltd. (Landa), Rehovot (ISR), and 49.5 % 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 Federal Gazette (Bundesanzeiger). This list is also available on the internet at www.altana.com.

New Accounting Pronouncements Endorsed by the EU

In 2020, no new Standards or Interpretations were issued that have an effect on ALTANA's current and from today's perspective also on subsequent Consolidated Financial Statements. ALTANA has not early adopted any new standards or interpretations.

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:

		Average rate for the years Spot rate ended Dec. 31			,
		Dec. 31, 2019	Dec. 31, 2019 Dec. 31, 2020		
1 Euro					
Brazil	BRL	4.52	6.37	4.41	5.89
China	CNY	7.82	8.02	7.74	7.87
India	INR	80.19	89.66	78.84	84.64
Japan	JPY	121.94	126.49	122.01	121.85
Switzerland	CHF	1.09	1.08	1.11	1.07
U.S.	USD	1.12	1.23	1.12	1.14

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, defined benefit obligations and obligations from employee incentive 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, for example, of 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 25) and other liabilities (see note 26). 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. Prepayments from customers for which the performance obligation has not been fulfilled are recorded in contract liabilities (see note 26). 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, "Revenue from Contracts with Customers".

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 carryforwards.

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 carryforwards 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 gualifying 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 at least annually. 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. Not included are the "Right of Use assets" (RoU assets) from lease contracts:

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

The RoU assets from lease agreements are depreciated on a straight-line basis over the shorter of its useful life or the term of the agreement, including any renewal options. The fixed lease terms are applied as follows:

	Years
Buildings and leasehold	> 1 to 79
Plant and machinery	> 1 to 10
Equipment	> 1 to 10

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 recognized in other operating income to the extent the cost has been incurred and at the time all the conditions are fulfilled. Until then, government grants received are recorded in deferred income. Government grants received in connection with the coronavirus pandemic are recognized in profit or loss as a reduction of the related expenses, mainly personnel expenses (see note 11).

Long-term Investments and Marketable Securities

In accordance with IFRS 9 the Company classifies all marketable securities and certain longterm investments (see note 14) 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 based on weighted average costs. Manufacturing costs comprise material, payroll and directly attributable overhead costs, including depreciation and amortization. Write-downs are reported in Material expenses.

Trade Accounts Receivable

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

ALTANA applies the simplified approach (expected credit loss model) 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. Risk provisions for expected credit losses on receivables not individually impaired are determined based on 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.

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.

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 existing equity instruments are not recognized in other comprehensive income; hence the measurement option provided by the standard is not applied.

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.

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).

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 (fair value hierarchy level 3), considering 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 of the net benefit employee obligations 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 also include personnel related obligations measured in accordance with IAS 19.

Leases

ALTANA leases land and buildings, technical equipment and machinery as well as operating and office equipment. The majority of the lease portfolio consists of lease contracts for vehicles. However, in relation to the carrying amount of the RoU assets, leased land and buildings account for the largest portion.

Lease contracts are usually concluded for a fixed term but can also include renewal and termination options. The leased assets do not serve as collateral and the lease contracts do not contain any specific covenants. The lease contracts are negotiated individually and contain various different terms and conditions.

Leases are recognized as RoU assets and a corresponding liability at the date on which the lessor makes the underlying asset available for use by the lessee. The RoU asset is depreciated on a straight line basis over the shorter of its useful life or the term of the contract.

Under the effective interest method, each payment is divided into payments on principal and interest. Interest expense is recognized in profit or loss over the term of the contract.

Assets and liabilities arising from a lease are initially recognized at their present value.

RoU assets are measured at cost and include the following: (a) the amount of the initial measurement of the lease liability, (b) any lease payments made on or before the commencement date less any lease incentives received, (c) any initial direct costs, and (d) costs of restoring the site.

The lease liabilities include the present value of the following lease payments: (a) fixed payments (including in-substance fixed payments), less any lease incentives; (b) variable lease payments that depend on an index or rate; (c) amounts expected to be paid by the lessee under residual value guarantees; (d) the exercise price of a purchase option if it is reasonably certain that the option will be exercised; and (e) payments of penalties for early termination of the lease.

Lease payments are discounted at ALTANA's incremental borrowing rate.

Payments made under short-term leases and under lease agreements for low-value assets are recognized immediately in profit or loss. Short-term lease contracts are leases with a term of 12 months or less. Low-value assets are typically operating and office equipment such as printers, copiers, etc. which have acquisition costs of no more than EUR 5,000.

Use of Estimates, Assumptions and Judgements

The preparation of the Consolidated Financial Statements requires management to make estimates, and assumptions as well as exercise judgements which 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 estimates made.

Management's judgement apart from estimates is based on expectations regarding future events and historical experience. This applies, for example, to the assessment of whether assets fulfill all conditions to be classified as assets held for sale, the assessment of the term of lease contracts in respect of whether the option to renew or terminate a lease is reasonably certain and, in the context of revenue recognition, with regard to the allocation of the transaction price.

Due to the coronavirus pandemic, uncertainties of estimates have increased. To address this the instruments for impairment testing and determining impairment losses on goodwill, intangible assets and property, plant and equipment have been supplemented by weighted scenario-based valuations. Additionally, the instruments used to determine the loss allowance on trade receivables were adjusted.

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:

Revenue recognition: Revenue and related rebates are determined on the basis of estimates relating to sales and agreed contractual conditions (see Revenue recognition).

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 24).

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 12 and 13.

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. Tax matters are subject to uncertainties regarding their assessment by the tax authorities and therefore it cannot be precluded that in individual cases tax authorities may conclude on these matters differently than ALTANA. If changes in the assessment are probable, a corresponding provision is recorded.

Leasing: In determining the term of a lease, management considers all facts and circumstances that provide an economic incentive to exercise an option to extent or terminate a lease. Renewal and termination options allow for operational flexibility in designing the terms of the contract and, by exercising or not exercising them, a certain extend of flexibility in the event of changed market conditions.

Due to ALTANA's financing structure, the lease liability is determined by applying a Groupwide yield curve, which is subject to an annual review. 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 2020

On December 6, 2019, ALTANA concluded an agreement with the American Gulf Scientific Inc., Houston, Texas (USA) to acquire their business with innovative additives for the exploration industry. The acquisition was consummated on January 2, 2020. The business was integrated into the BYK division.

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

in € million	
Goodwill	19.2
Other intangible assets	15.3
Inventories	5.7
Consideration transferred	40.2

The purchase price amounted to ≤ 40.2 million and was paid in cash. Based on the final allocation of the consideration transferred tax deductible goodwill of ≤ 19.2 million was recognized.

Since the acquisition the business has contributed \in 14.2 million to consolidated net sales and \in -0.2 million to consolidated net income.

On December 20, 2019 ALTANA concluded a contract with Conzzeta AG, Zurich (CHE) for the acquisition of all shares in the Swiss Schmid Rhyner AG, Adliswil. Schmid Rhyner is specialized in overprint varnish solutions and was integrated into the ACTEGA division. The acquisition was consummated on February 28, 2020. In 2019, the business generated annual sales of approximately \leq 50 million. The purchase price of \leq 63.3 million was paid in cash. The following table provides an overview of the final allocation of the consideration transferred to the assets acquired and liabilities assumed by ALTANA at the acquisition date.

in € million	
Goodwill	16.6
Other intangible assets	38.0
Property, plant and equipment	17.1
Inventories	7.6
Trade accounts receivable	8.2
Deferred tax assets	0.2
Other assets	1.8
Cash and cash equivalents	2.9
Provisions	(3.2)
Trade accounts payable	(2.4)
Deferred tax liabilities	(11.6)
Other liabilities	(11.9)
Consideration transferred	63.3

Based on the allocation of the consideration transferred goodwill of ≤ 16.6 million was recognized. Additionally, with the acquisition a shareholder loan of ≤ 10.9 million was assumed. Since the acquisition the business has contributed ≤ 33.0 million to consolidated net sales and ≤ -1.6 million to consolidated net income. Had the acquisition been consummated at the beginning of the year, the business would have contributed ≤ 39.4 million to consolidated net sales and ≤ -1.8 million to consolidated net income.

Furthermore in 2020, a smaller acquisition was made in the ECKART division. On May 28, 2020, the ECKART division acquired all shares in the British Aluminum Materials Technologies Ltd. (AMT), Worcester (GB), which operates in the 3D printing market with a special alloy, from AEROMET HOLDINGS Ltd. In 2019, the business generated net sales of ≤ 1.2 million. The purchase price amounted to ≤ 4.4 million and was paid in cash. Goodwill of ≤ 1.4 million was recognized.

In 2020, cash and cash equivalents totaling €2.9 million were acquired in all acquisitions.

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.

Acquisitions in 2019

On December 24, 2019, the ELANTAS division acquired the wire enamel business from Hubergroup India Private Ltd., Gujarat (IND) in an asset deal. Of the purchase price of \leq 5.7 million an amount of \leq 4.6 million was paid in cash. The remaining purchase price payment of \leq 1.1 million, which was contingent on the occurrence of a non-financial event was paid in January 2020. Until then, it was reported in financial liabilities (see note 23).

Acquisitions in 2017

As agreed, further payments of \in 4.3 million were made to Changzhou Hongbo Paint Co. Ltd., in 2018 and 2019 for the acquisition by an asset deal in the ELANTAS division (see note 23).

For the share deal also concluded in the ELANTAS division in 2017 with the American Cytec Industries Inc., which is part of the Belgian chemical group Solvay, the earn-out payment obligation recognized under financial liabilities, was reduced by USD 4.2 million (\in 3.7 million) in 2019 because the relevant sales targets presumably will not be met. In 2020, the change of the financial liability results from exchange rate fluctuations (see note 23).

Acquisitions subsequent to December 31, 2020

On September 9, 2020 ALTANA concluded a contract for the acquisition of the business of TLS Technik GmbH & Co. Spezialpulver KG (TLS), Bitterfeld. TLS is a leading manufacturer of metal powders for 3D printing. The acquisition was consummated on February 1, 2021. In 2019, the business generated net sales of about €9 million and will be integrated into the ECKART division.

The following table provides an overview of the preliminary allocation of the consideration transferred to the assets acquired and liabilities assumed by ALTANA at the acquisition date in 2021:

Consideration transferred	33.7
Trade accounts payable	(1.1)
Trade accounts receivable	1.3
Inventories	6.2
Property, plant and equipment	3.7
Other intangible assets	18.4
Goodwill	5.2
in € million	

On February 1, 2021, the preliminary purchase price amounted to \leq 33.7 million. Of this amount \leq 26.7 million was paid in cash. The remaining payment of the purchase price is contingent on the achievement of sales and earnings targets within 24 months after acquisition and will be recognized in financial liabilities in 2021. The provisional allocation of the consideration transferred results in goodwill of \leq 5.2 million.

		ВҮК	ECKART	ELANTAS	ACTEGA	ALTANA Group
Europe	2019	383,819	178,099	125,579	170,491	857,988
	2020	366,028	155,086	120,693	200,685	842,492
America	2019	297,018	83,391	97,643	142,520	620,572
	2020	292,877	69,548	84,955	138,552	585,932
Asia	2019	339,318	87,994	268,174	36,309	731,795
	2020	330,361	84,639	254,686	42,155	711,841
Other regions	2019	20,448	6,669	3,133	8,338	38,588
	2020	19,404	5,926	2,970	9,595	37,895
Total	2019	1,040,603	356,153	494,529	357,658	2,248,943
	2020	1,008,670	315,199	463,304	390,987	2,178,160

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:

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. The coronavirus pandemic had no impact on the principles of revenue recognition and related discounts.

In 2020 and 2019, ALTANA recognized revenue from contracts with customers amounting to $\leq 2,178.2$ million and $\leq 2,248.9$ million, respectively.

In 2020 and 2019, the refund liabilities from sales reductions amount to \leq 12.8 and \leq 8.5 million, respectively, and are reported in other provisions (see note 25) or other liabilities (see note 26). Prepayments from customers for which the performance obligation has not been fulfilled are recorded in contract liabilities (see note 26).

5. Cost of Sales

Cost of sales include the following items:

	2019	2020
Material expenses	960,852	899,328
Production expenses	463,898	457,807
	1,424,750	1,357,135

6. Other Operating Income

	2019	2020
Gains on disposal of intangible assets and property, plant and equipment	186	756
Government grants	377	489
Insurance reimbursements	1,187	482
Other	10,358	10,073
	12,108	11,800

7. Other Operating Expenses

	2019	2020
Bad debt expense ¹	385	5,555
Write-down of receivables without prior loss allowance	289	214
Losses from disposal of intangible assets and property, plant and equipment	619	558
Foreign exchange gains / (losses), net	1,381	670
Exceptional expenses	8,018	85,621
Charitable donations	315	265
Other	1,862	1,193
	12,869	94,076

¹ Additions to and reversals of loss allowances are reported net in bad debt expense, prior year amounts were adjusted accordingly.

Bad debt expense includes a risk provision for potentially increased insolvency risks resulting from the coronavirus pandemic (see note 17).

Foreign exchange gains and losses are as follows:

Net gain / net (loss)	(1,381)	(670)
Foreign exchange (losses)	(8,861)	(8,161)
Foreign exchange gains	7,480	7,491
	2019	2020

Exceptional expenses relate to the following:

	Notes	2019	2020
Impairment of goodwill	12		85,621
Impairment loss on intangible assets	12	1,209	
Impairment loss on property, plant and equipment	13	2,859	
Restructuring expenses		3,950	
		8,018	85,621

In 2020, the impairment of goodwill relates to the ECKART division (see note 12). In 2019, the BYK division incurred exceptional expenses comprising impairment losses and restructuring expenses of \in 8.0 million due to the discontinuation of a product group at one U.S. and one German production site.

8. Financial Income

	2019	2020
Interest income	11,031	2,225
Gains on disposal of marketable securities	37	449
Income from fund-based financial instruments	1,276	154
Gains from the change in fair value of financial assets and securities	3,205	1,283
Gains from the change in fair value of financial liabilities	3,739	
Dividends received	196	356
Other financial income	387	210
	19,871	4,677

9. Financial Expenses

	2019	2020
Interest expenses	10,994	7,399
Losses on disposal of marketable securities	54	6
Losses from the change in fair value	354	18
Other financial expenses	581	1,404
	11,983	8,827

In 2020, foreign exchange losses of ≤ 0.8 million are included in other financial expenses, while in 2019 foreign exchange gains of ≤ 0.1 million were included in other financial income (see note 8).

In both years reported interest expenses include interest from lease contracts in the amount of ≤ 0.8 million.

10. Income Taxes

Income tax expense is as follows:

Income taxes	62,234	67,544
Deferred taxes	(10,515)	(8,863)
Current taxes	72,749	76,407
	2019	2020

In 2020, the combined income tax rate, derived from local subsidiaries, is 29.5 % (2019: 29%) and consists of the corporate tax rate of 15%, the solidarity surcharge on corporate tax of 5.5% in both years and the trade tax of about 14% in 2020 and 13% in 2019. 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:

	2019	2020
Income before income taxes (EBT)	231,283	142,691
Income from at equity accounted investments	(39,090)	(38,900)
Income before income taxes - adjusted (EBT adjusted)	270,373	181,591
Tax expense applying the expected average income tax rate of 29,5 % (Dec. 31, 2019: 29.0 %)	78,408	53,569
Impairment of goodwill		17,869
Non-deductible expenses	4,343	4,778
Tax rate differential	(7,777)	(311)
Tax free income	(3,294)	(1,617)
Tax related to prior years	(9,718)	(6,276)
Other	272	(468)
Income taxes	62,234	67,544
Effective income tax rate ¹	23.0%	37.2%

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

In 2020 and 2019, the effective income tax rate based on income before income taxes was 47.3 % and 26.9 %, respectively. In 2020, the effective tax rate was in particular effected by the impairment losses in the ECKART division, which are not tax deductible and therefore no related deferred tax assets were recognized.

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

		Dec. 31, 2019		Dec. 31, 2020
	Assets	Liabilities and provisions	Assets	Liabilities and provisions
Intangible assets	3,449	(88,446)	3,112	(84,325)
Property, plant and equipment	1,691	(48,540)	1,861	(56,617)
Long-term investments	338	(2,285)	341	(2,217)
Inventories	14,998	(223)	16,875	(786)
Receivables and other assets	1,620	(966)	4,725	(1,564)
Employee benefit obligations	55,735	(513)	59,800	(350)
Other provisions	5,036	(2,550)	5,369	(3,075)
Liabilities	11,006	(1,134)	7,599	(792)
Tax loss carryforwards	7,803		10,774	
Outside bases differences		(3,760)		(2,761)
Netting	(79,696)	79,696	(81,289)	81,289
Deferred taxes, net	21,980	(68,721)	29,167	(71,198)

20,447

509,221

23,368 509,796

The periods in which the tax loss carryforwards may be used are as follows:

	2019	2020
Tax loss carryforwards	52,309	55,928
unlimited	39,556	49,201
will expire through 2025 (prior year: 2024)	12,753	6,727

Deferred tax assets on tax loss carryforwards of ≤ 14.7 million and ≤ 23.7 million were not recognized as of December 31, 2020 and 2019, respectively, since the future utilization against taxable income is not probable. Tax loss carryforwards for which no deferred tax assets were recognized amounting to ≤ 9.1 million have unlimited carryforward periods, ≤ 5.6 million will expire through 2025.

For companies that generated a loss in the current year or in previous years, deferred tax assets of ≤ 0.9 million (previous year ≤ 1.3 million) were recognized since their realization is probable based on tax planning.

As of December 31, 2020 and 2019, deferred tax liabilities in the amount of \leq 40.8 million and \leq 43.3 million, respectively, representing the temporary differences between the net assets 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.

11. Other Information on the Income Statement

Personnel Expenses

Personnel expenses consist of the following items:

Expenses for pensions and other post-retirement benefits

	2019	2020
Wages and salaries	408,565	412,812
Social security contributions	77,863	75,962

Personnel expenses include expenses for employee incentive plans (see note 22). In 2020, expenses of \in 5.8 million and in 2019, income of \in 0.3 million, relate to the compensation plan for key members of the management, "ALTANA Equity Performance (AEP)," and \in 2.4 million and \in 2.0 million, respectively, to the compensation plan for employees, "ALTANA Profit Participation." In 2020, personnel expenses were reduced by government grants due to the coronavirus pandemic by \in 3.0 million.

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

	2019	2020
Number of employees by division		
ВҮК	2,325	2,328
ECKART	1,707	1,693
ELANTAS	1,088	1,078
ACTEGA	1,147	1,222
Holding ¹	191	212
	6,458	6,533

¹ The Holding division comprises next to the Group Holding company service and technology companies.

Amortization, Depreciation and Impairment Loss

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

	2019	2020
pairment of goodwill pairment loss on intangible assets	51,639	52,477
Depreciation of property, plant and equipment	97,603	102,116
Impairment of goodwill		85,621
Impairment loss on intangible assets	1,209	
Impairment loss on property, plant and equipment	2,859	
	153,310	240,214

For information on the impairment loss recognized on goodwill see note 12. For information on the impairment loss recognized on intangible assets and property, plant and equipment in 2019 see note 7.

Leases

The following effects occurred in the income statement:

	2019	2020
epreciation of RoU assets		
RoU assets - Land, leasehold and buildings	6,659	6,765
RoU assets - Plant and machinery	303	326
RoU assets - Equipment	3,067	3,395
	10,029	10,486
ase expenses for		
short-term leases	4,088	1,962
low value asset leases	957	708
variable lease payments - not included in the lease liability	1,909	2,074
interest	777	773

12. Intangible Assets

	Patents,			
	licenses and		Software	
	similar rights	Goodwill	and others	Total
Cost				
Balance at Jan. 1, 2019	852,379	651,003	123,379	1,626,761
Additions	1,929		8,386	10,315
Disposals	(344)		(2,839)	(3,183)
Transfers	(139)		2,380	2,241
Translation adjustments	8,096	9,087	357	17,540
Change in reporting entities	7,921			7,921
Balance at Dec. 31, 2019	869,842	660,090	131,663	1,661,595
Additions	632		8,243	8,875
Disposals	(2,272)		(995)	(3,267)
Transfers	1,185		(229)	956
Translation adjustments	(34,724)	(41,840)	(2,097)	(78,661)
Change in reporting entities	56,733	37,265	138	94,136
Balance at Dec. 31, 2020	891,396	655,515	136,723	1,683,634
Accumulated amortization				
Balance at Jan. 1, 2019	433,874	50,130	98,540	582,544
Additions	43,501	,	8,138	51,639
Disposals	(344)		(2,767)	(3,111)
Impairment	1,209			1,209
Transfers	(167)		1,111	
Translation adjustments	3,914		243	4,488
Balance at Dec. 31, 2019	481,987	50,461	105,265	637,713
Additions	44,237		8,240	52,477
Disposals	(2,272)		(927)	(3,199)
Impairment		85,621		85,621
Transfers			438	438
Translation adjustments	(18,271)	(2,692)	(1,537)	(22,500)
Balance at Dec. 31, 2020	505,681	133,390	111,479	750,550
Carrying amount				
Dec. 31, 2019	387,855	609,629	26,398	1,023,882
Dec. 31, 2020	385,715	522,125	25,244	933,084

In 2020, additions to patents, licenses and similar rights of ≤ 0.6 million related to REACH expenses incurred primarily in the BYK and ECKART divisions.

The additions to software and others related to digitalization projects and the further expansion of SAP applications within ALTANA and amount to \leq 4.9 million primarily in the BYK division and Holding division.

In 2020, changes in reporting entities related to the acquisition of Gulf Scientific in the BYK division with \in 34.5 million, the acquisition of Schmid Rhyner in the ACTECA division with \notin 54.6 million and the acquisition of AMT in the ECKART division with \notin 5.1 million (see note 3).

In 2019, additions to patents, licenses and similar rights in the BYK division related to technologies for color-identification and formulation of inks and coatings in the amount of ≤ 1.2 million. Furthermore, an additional amount of ≤ 0.7 million related to REACH expenses incurred primarily in the BYK and ELANTAS divisions. The additions to software and others related to the further digitalization and expansion of SAP applications of ALTANA and amount to ≤ 3.2 million in the BYK division and to ≤ 3.1 million in the Holding division.

In 2019, changes in reporting entities related to the acquisition of the Hubergroup India in the ELANTAS division with \in 5.7 million and the acquisition of Paul N. Gardner in the BYK division with \in 2.2 million.

In 2019, the BYK division recognized an impairment loss of ≤ 1.2 million in connection with the discontinuation of a product group (see note 7). The residual carrying amount of the impaired assets based on value in use at that time was ≤ 0.2 million.

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:

2021	51,184
2022	48,597
2023	45,111
2024	40,011
2025	36,354
Thereafter	159,078

As of December 31, 2020, and 2019, patents, licenses and similar rights include brand names with indefinite useful lives of \in 24.3 million and \in 24.7 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 allocation of the consideration transferred. They continue to be used and as in 2019 there was no need to recognize an impairment loss.

	Dec. 31, 2019	Dec. 31, 2020
ВҮК	356,894	347,631
ECKART	83,865	
ELANTAS	101,970	96,357
ACTEGA	66,900	78,137
	609,629	522,125

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

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 2021 to 2025. 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 were applied: discount rate after income taxes of 6.8 % (2019: 7.4 %); growth rates: BYK 1.75 %; ECKART, ELANTAS and ACTEGA 1.5 % both unchanged to 2019. 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 calculates the value in use for each cash-generating unit. If the impairment test indicated a need for an impairment, the exact amount of the impairment was determined based on a weighted scenario-based valuation.

In 2020, as a result of impairment testing of the ECKART division based on value in use, an impairment loss on goodwill amounting to €85.6 million was identified and recognized in other operating expenses. The impairment results from an assessment of the future business development, in which various probability weighted planning scenarios were included, due to the overall economic uncertainties. Compared to ALTANA's other divisions the sales and earnings development of the ECKART division was more strongly affected by weak demand from the coronavirus pandemic, particularly as the share of the division's total sales with automotive and cosmetics industries is significantly higher. This results in a weaker weighted scenario-based assessment of the future business development. In 2019, no impairment losses on goodwill were recognized.

Sensitivity analyses indicated that even a reasonably likely change in the significant underlying parameters would not result in an impairment loss in any other division.

In the period since the performance of the impairment test until December 31, 2020, no impairment indicators were identified.

Impairment Test for Intangible Assets with an indefinite useful life In 2020 and 2019, no impairment losses on intangible assets with an indefinite useful life were recognized.

13. Property, Plant and Equipment

	Land, leasehold and buildings	Plant and machinery	Equipment	Advances / construction in progress	Total
Cost					
Balance at Jan. 1, 2019	645,942	769,318	243,922	118,419	1,777,601
Change in accounting policies	37,122	1,112	5,963	,	44,197
Additions	39,302	32,582	14,510	68,034	154,428
Disposals	(4,592)	(6,163)	(7,774)	(426)	(18,955)
Transfers	21,558	19,678	32,841	(76,319)	(2,242
Translation adjustments	4,001	5,675	1,157	1,134	11,967
Change in reporting entities					
Balance at Dec. 31, 2019	743,333	822,202	290,619	110,842	1,966,996
Change in accounting policies			-		
Additions	22,187	25,394	16,406	46,395	110,382
Disposals	(6,082)	(2,171)	(7,177)	(691)	(16,121)
Transfers	18,228	48,067	(1,862)	(65,388)	(955
Translation adjustments	(19,567)	(25,431)	(7,285)	(2,690)	(54,973
Change in reporting entities	11,058	5,567	221	298	17,144
Balance at Dec. 31, 2020	769,157	873,628	290,922	88,766	2,022,473
Accumulated depreciation					
Balance at Jan. 1, 2019	259,790	490,518	158,814	317	909,439
Additions	29,516	45,410	22,677		97,603
Disposals	(4,559)	(5,789)	(7,197)		(17,545
Impairment	179	2,680			2,859
Transfers	(1,058)	(469)	584		(943
Translation adjustments	1,029	3,053	662	2	4,746
Change in reporting entities					
Balance at Dec. 31, 2019	284,897	535,403	175,540	319	996,159
Additions	31,427	47,037	23,652		102,116
Disposals	(3,076)	(1,739)	(6,754)		(11,569)
Impairment					
Transfers	(130)	(2,702)	2,394		(438)
Translation adjustments	(6,005)	(13,608)	(3,657)	(8)	(23,278
Change in reporting entities	7				7
Balance at Dec. 31, 2020	307,120	564,391	191,175	311	1,062,997
Carrying amount					
Dec. 31, 2019	458,436	286,799	115,079	110,523	970,837
Dec. 31, 2020	462,037	309,237	99,747	88,455	959,476

	Land,			
	leasehold and	Plant and		
	buildings	machinery	Equipment	Total
Cost				
Balance at Jan. 1, 2019	37,122	1,112	6,715	44,949
Additions	4,419	156	2,987	7,562
Disposals	(8)		(363)	(371)
Translation adjustments	600	7	45	652
Change in reporting entities				
Balance at Dec. 31, 2019	42,133	1,275	9,384	52,792
Additions	9,729	185	4,133	14,047
Disposals	(1,705)	(14)	(1,518)	(3,237)
Translation adjustments	(3,743)	(15)	(292)	(4,050)
Change in reporting entities	72		72	144
Balance at Dec. 31, 2020	46,486	1,431	11,779	59,696
Accumulated depreciation				
Balance at Jan. 1, 2019			526	526
Additions	6,659	303	3,067	10,029
Disposals	(1)		(120)	(121)
Translation adjustments	(14)	1	4	(9)
Change in reporting entities				,
Balance at Dec. 31, 2019	6,644	304	3,477	10,425
Additions	6,765	326	3,395	10,486
Disposals	(1,604)	(13)	(1,183)	(2,800)
Translation adjustments	(726)	(7)	(109)	(842)
Change in reporting entities	7			7
Balance at Dec. 31, 2020	11,086	610	5,580	17,276
Carrying amount				
Dec. 31, 2019	35,489	971	5,907	42,367
Dec. 31, 2020	35,400	821	6,199	42,420

The following table presents the RoU assets resulting from leases that are recognized in property, plant and equipment:

In 2020, additions in the BYK division of ≤ 20.2 million related to European facilities and of ≤ 17.2 million to U.S. facilities. An additional ≤ 9.2 million related to Asian and ≤ 2.1 million to Mexican facilities. In the ECKART division additions of ≤ 15.5 million related to European facilities and ≤ 9.7 million related to U.S. facilities. For the expansion of its production and laboratory capacities, the ELANTAS division invested ≤ 7.5 million in Germany and Italy, ≤ 2.1 million in its U.S. facilities, ≤ 4.5 million in Asia and ≤ 0.2 million in Brazil. To expand its production and research capacities the ACTEGA division invested ≤ 11.8 million in its European locations, ≤ 6.3 million in its U.S. locations and ≤ 1.3 million in its locations in Brazil.

In connection with capital expenditures ALTANA recognized directly attributable borrowing costs of ≤ 0.3 million. The calculation was based on an interest rate of 2.1 %.

In 2019, additions in the BYK division of \in 34.2 million related to the European facilities, of which Germany accounted for \in 26.0 million. \in 43.9 million were invested in U.S. production and research facilities and further \in 11.8 million were invested in Asia. Additions of \in 11.9 million in the ECKART division related to its European facilities and additions of \in 9.1 million related to several U.S. facilities. For the expansion of its production and laboratory capacities, the ELANTAS division invested \in 7.6 million in Germany and Italy and \in 4.0 million in its Asian facilities. To expand its production and research capacities the ACTEGA division invested \in 15.8 million in the European locations, \in 6.2 million in its locations in Brazil and \in 3.5 million in its U.S. locations.

In connection with capital expenditures ALTANA recognized directly attributable borrowing costs of ≤ 0.8 million. The calculation was based on an interest rate of 2.0%.

In both years reported land and buildings with a book value of ≤ 0.6 million related to investment property and had a fair value of ≤ 4.2 . million as of December 31, 2020 and ≤ 3.8 million as of December 31, 2019. 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 3). 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 2020 and 2019.

In 2019, the BYK division recognized an impairment loss in connection with the discontinuation of a product group in the amount of \in 2.9 million (see note 7). The residual carrying amount of the impaired assets based on value in use at that time was \in 1.7 million.

		Other	
	Other	long-term	
	investments	financial assets	Total
Cost			
Balance at Jan. 1, 2019	15,866	6,457	22,323
Additions	3,609	16,767	20,376
Disposals		(26)	(26
Translation adjustments	47	121	168
Change in fair value	2,891		2,891
Change in reporting entities			
Balance at Dec. 31, 2019	22,413	23,319	45,732
Additions	2,250	1,682	3,932
Disposals		(33)	(33
Translation adjustments	(212)	(540)	(752
Change in fair value	41		41
Change in reporting entities		44	44
Balance at Dec. 31, 2020	24,492	24,472	48,964
Carrying amount			
Dec. 31, 2019	22,413	23,319	45,732
Dec. 31, 2020	24,492	24,472	48,964

14. Long-term Investments

In 2020, ALTANA acquired a 13.5% interest in TAU ACT GmbH, which is reported in other investments.

In 2019, ALTANA granted a long-term loan of \leq 16.0 million to Israeli Landa Labs. In 2020, interest in the amount of \leq 0.8 million accrued. This loan is fully secured by shares in Landa and Landa Labs.

In 2019, the change in the fair value of €2.9 million mainly relates to the interest in CiDRA Holdings LLC, USA. Additionally, the interest in CiDRA was increased to 4.8%. As part of the carve-out transaction in 2020, the existing shares in CiDRA Holdings LLC, USA were divided into CiDRA Holdings LLC (4.8%) and CiDRA Concrete Holdings LLC (3.9%). The transaction did not result in a material impact on the carrying amount of the investment.

In the years reported, no impairment losses were recognized.

As of December 31, 2020 and 2019, an amount of ≤ 0.1 million of other long-term financial assets related to employee loans bearing a weighted average interest rate of 3.3 % in 2020 and 4.0 % in 2019.

In 2020 and 2019, several funding agreements were signed to finance another Israeli investment of €1.6 million. These are recorded in other long-term financial assets.

In 2018, ALTANA granted a long-term loan, due at maturity, of USD 7.1 million to an unrelated U.S. investment fund as part of a U.S. development program. The loan is reported in other long-term financial assets. In return, ALTANA has received a loan of USD 9.9 million, also due at maturity (see note 23).

The Taunus Treuhandgesellschaft m.b.H. Steuerberatungsgesellschaft and the Seedamm-Versicherungs-Vermittungs GmbH are reported in other long-term financial assets and not in investments in at equity accounted companies, due to their insignificance.

15. Investments in at Equity Accounted Companies

Balance at Dec. 31, 2020	89,064
Translation adjustments	(9,926
Dividends	(426
Proportionate result from associates	(38,900
Additions	
3alance at Dec. 31, 2019	138,316
Translation adjustments	13,76
Dividends	(61
Proportionate result from associates	(39,09
Additions	46,38
Balance at Jan. 1, 2019	117,86
	counted companie
	at equity ac
	Investments in

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 39.0 % 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 33.3% investment in Landa its share in the net assets amounted to ≤ 28.9 million. An amount of ≤ 75.1 million was allocated to development cost and no goodwill was identified. From 2016 until 2019, capital increases were effected, in which ALTANA participated with an amount of ≤ 134.4 million. Landa develops printing presses and consumables for the new nanography technology for water-based digital printing. Following the delivery of the first beta machines in 2018, 2019 saw the start of the market launch with the delivery of the first non-beta machines. Accordingly, amortization of the development costs identified at the time of acquisition started in 2019.

Investments in joint ventures are accounted for by applying the equity method of accounting.

At the date of acquisition of dp polar in 2017 for a purchase price of ≤ 3.5 million ALTANA's share of equity of its 43.8% interest amounted to ≤ 1.5 million. From the total purchase price an amount of ≤ 2.0 million was allocated to development cost and no goodwill was recognized. After the capital increase in 2019, in which ALTANA participated with ≤ 3.2 million, ALTANA's share of equity amounts to 49.5%. Since the acquisition ≤ 3.4 million has been allocated to development costs. Pro rata amortization of the identified development costs has not yet commenced. Based on the proportionate result of ≤ -36 thousand (previous year: ≤ -0.4 million), the carrying amount of ≤ 6.0 million is the same as in the previous year.

The following financial information relates to all associated companies and represents the amounts reported in the financial statements of the relevant associated companies and not ALTANA's proportionate share of these amounts.

	Dec. 31, 2019	Dec. 31, 2020
Financial statement		
Non-current assets ¹	332,299	245,235
Current assets	141,825	77,871
Total assets	474,124	323,106
Non-current liabilities	20,183	19,717
Current liabilities	43,711	30,950
Total liabilities and provisions	63,894	50,667
Net assets	410,230	272,439
Income statement		
Net sales	22,346	27,625
Net income (EAT) / Comprehensive income	(109,089)	(117,006)

¹Prior year amounts were adjusted to improve the presentation.

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

	Dec. 31, 2019	Dec. 31, 2020
Net assets (100 %)	410,230	272,439
The Group's share of net assets	137,322	91,291
Proportionate goodwill ¹	2,572	1,823
Other	(7,578)	(10,013)
Carrying amount	132,316	83,101

 $^{1}\mbox{Prior}$ year amounts were adjusted to improve the presentation.

Other changes mainly relate to effects from the local share-based payment plan of an associated company.

The line item Other in the consolidated Statement of Cash Flows mainly relates to results from at equity accounted investments.

16. Inventories

	Dec. 31, 2019	Dec. 31, 2020
Raw materials and supplies	118,298	117,150
Work in progress	33,011	30,850
Finished products and goods	197,083	187,782
Prepayments	455	599
	348,847	336,381

In 2020 and 2019, inventories are stated net of write-downs of \in 25.9 million and \in 23.1 million, respectively.

17. Trade Accounts Receivable

	Dec. 31, 2019	Dec. 31, 2020
Trade accounts receivable	387,849	412,581
Loss allowance	(7,205)	(12,124)
	380,644	400,457

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

	2019	2020
Allowance at the beginning of the year	7,247	7,205
Translation adjustments	39	(232)
Additions	2,527	7,000
Reversal	(2,142)	(1,445)
Utilization	(466)	(450)
Change in reporting entities		46
Allowance at the end of the year	7,205	12,124

Additions include a risk provision for potentially increased insolvency risks resulting from the coronavirus pandemic of \notin 4.1 million.

Impairment losses recognized in profit or loss are as follows:

	2019	2020
Amounts written off	289	214
Addition to loss allowance	2,527	7,000
Reversal of loss allowance	(2,142)	(1,445)
	674	5,769

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

	2019	2020
Trade accounts receivable (gross) at Jan. 1	391,427	387,849
Translation adjustments	2,768	(14,767)
Additions	2,395,191	2,366,605
Disposals	(2,400,782)	(2,334,805)
Utilization of loss allowance	(466)	(450)
Amounts written off	(289)	(214)
Change in reporting entities		8,363
Trade accounts receivable (gross) at Dec. 31	387,849	412,581

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 days past due	31-90 days past due	> 90 days past due
Dec. 31, 2019							
Carrying amount - gross	387,849	6,475	381,374	337,601	31,643	9,477	2,653
Expected loss rate			0.34%	0.14%	1.04%	2.97%	8.33%
Loss allowance	7,205	5,903	1,302	471	329	281	221
Carrying amount	380,644	572	380,072	337,130	31,314	9,196	2,432
Dec. 31, 2020							
Carrying amount - gross	412,581	8,159	404,422	371,828	23,551	5,647	3,396
Expected loss rate			1.32%	1.14%	2.01%	5.42%	9.39%
Loss allowance	12,124	6,769	5,355	4,257	473	306	319
Carrying amount	400,457	1,390	399,067	367,571	23,078	5,341	3,077

As of December 31, 2020 and 2019, the exposure to credit risk was as follows:

As of December 31, 2020 and 2019, respectively, the maximum carrying amount subject to credit risk amounts to \leq 412.6 million and \leq 387.8 million.

18. Marketable Securities

Marketable securities are measured at fair value through profit or loss. The carrying amounts which equal their fair value were as follows:

	Dec. 31, 2019	Dec. 31, 2020
Money market funds	19,934	24,284
Share and equity funds	27	27
	19,961	24,311

19. Short-term Financial Assets

ALTANA invested in cash equivalents with a term of more than three months but less than one year. As of December 31, 2020 and 2019, \in 5.7 million and \in 4.8 million, respectively, were invested.

20. Other Assets

		Dec. 31, 2019		Dec. 31, 2020
	Other non- current assets	Other current assets	Other non- current assets	Other current assets
Balances due from employees	32	209	35	341
Cash surrender value of life insurance	1,865		1,860	
Balances due from fiscal authorities	250	18,984	232	18,449
Prepayments	45	2,702	19	3,239
Receivables from related parties		72		215
Prepaid expenses	246	8,871	728	10,357
Derivative financial instruments	848	359	918	2,443
Notes receivable		59,664		56,718
Other	7,614	6,660	6,945	7,523
	10,900	97,521	10,737	99,285

21. Shareholders' Equity

Issued Share Capital

The share capital was \in 136,097,896, represented by 136,097,896 no-par value shares representing \in 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 2020, a dividend of \leq 30.0 million was distributed to the shareholder. The Management Board proposes to the Annual General Meeting to distribute dividends in the amount of \leq 50.0 million from unappropriated retained earnings as of December 31, 2020 of \leq 1,236.9 million of ALTANA AG and to carry forward the remaining amount of \leq 1,186.9 million.

Accumulated Other Comprehensive Income

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 IFRS 9 are met.

Furthermore, accumulated other comprehensive income includes the translation adjustment of consolidated subsidiaries where the functional currency is a currency other than the Euro.

Notes on Other Comprehensive Income

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

			2019			2020
	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	(29,460)	8,856	(20,604)	(14,536)	3,989	(10,547)
Items that will not be reclassified subsequently to profit or loss	(29,460)	8,856	(20,604)	(14,536)	3,989	(10,547)
Translation adjustments (including non-controlling interests)	37,077		37,077	(117,281)		(117,281)
Gains and losses from derivative financial instruments	2,513	(778)	1,735	3,622	(1,086)	2,536
Change in fair value of derivative financial instruments	(3,364)	1,009	(2,355)	(308)	92	(216)
Items that may be reclassified subsequently to profit or loss	36,226	231	36,457	(113,967)	(994)	(114,961)
Other comprehensive income	6,766	9,087	15,853	(128,503)	2,995	(125,508)

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 Company. The majority of ALTANA's operations are financed by the Company's operating cash flows. Excess funds required are financed by borrowings.

In 2020, ALTANA's shareholders' equity decreased by \in 80.5 million to \in 2,399.0 million. The debt to asset ratio was at 26 %. Long-term debt represent 14 % and short-term debt represent 13 % of total liabilities and equity.

The remaining amount of \leq 48 million of the promissory note loans issued in prior periods totaling \leq 350 million, was repaid in 2020. A syndicated credit line of \leq 250 million with a term until 2022 continues to be 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:

	Dec. 31, 2019	Dec. 31, 2020
Assets	62,748	64,827
Non-current assets	20,934	19,161
Current assets	41,814	45,666
Liabilities	10,908	11,869
Non-current liabilities	3,092	2,821
Current liabilities	7,816	9,048
Net sales	49,811	44,986
Net income (EAT)	6,481	7,488

In 2020 and 2019, respectively, cash and cash equivalents of ELANTAS Beck India amounted to €1.4 million and €0.8 million. In 2020 and 2019, respectively, net income of €1.9 million and €1.6 million related to non-controlling interests and dividends of €0.1 million were distributed to them in both years. On December 31, 2020 and 2019, non-controlling interests held 25.0% of the shares.

22. Employee **ALTANA Equity Performance (AEP)**

Incentive Plans

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 relative to the value of ALTANA's shareholders' equity. At the beginning of each incentive plan AEP rights, so-called AEP Awards, are granted to the key management members. The awards will be settled at the value determined at the end of the respective plan's term. Payment is limited to a maximum of 250 % of the value of the preliminary awards granted. No payment is made in the event of a negative performance. In case of a positive performance over the subsequent period of four years, catch up payments are made for the respective plan.

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.

For the AEP tranche 2016, 10,365 AEP Awards were finally allocated at the end of the term on December 31, 2019 and the resulting payment of €2.9 million was made in 2020. In 2019, no payments were made for the AEP Tranche 2015 since no AEP awards were finally allocated at the end of the term on December 31, 2018.

	Awards granted	Initial fair value in € per award	Fair value in € per award as of Dec.31, 2020	End of term
Tranche AEP 2017	10,249	293.58	323.30	31.12.2020
Tranche AEP 2018	10,478	299.12	332.78	31.12.2021
Tranche AEP 2019	11,659	279.07	324.12	31.12.2022
Tranche AEP 2020	12,035	276.28	362.84	31.12.2023

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

In 2020, expenses for all plans including personal investments amounted to \leq 5.8 million while in 2019 income for all plans of \leq 0.3 million were recognized. Provisions amounted to \leq 8.9 million and \leq 6.4 million, as of December 31, 2020 and 2019, respectively and include \leq 3.3 million for the fully vested AEP tranche 2017. Total personal investment, which is reported in other liabilities, was measured at \leq 4.6 million and \leq 4.4 million as of December 31, 2020 and 2019 (see note 26).

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, 2020 and 2019, \notin 40.7 million and \notin 36.3 million, respectively, were recognized in other liabilities for the APPRs issued in 2020 and previous years. In 2020 and 2019, the one-time payment and the interest incurred resulted in an expense of \notin 2.4 million and \notin 2.0 million, respectively, which was recognized in personnel expenses.

		Dec. 31, 2019		Dec. 31, 2020
	Non-current debt	Current debt	Non-current debt	Current debt
Borrowings from banks	4,193	1,137	2,688	1,567
Promissory note loans (German Schuldscheine)		48,000		
Lease obligations	34,227	8,679	34,591	8,886
Other	12,373	4,673	11,327	325
	50,793	62,489	48,606	10,778

23. Debt

For general corporate financing purposes ALTANA uses different financing instruments. The promissory note loans (German Schuldschein) issued in previous years totaling \leq 350 million were repaid in full in 2020 for the remaining outstanding amount of \leq 48 million. As of December 31, 2020, ALTANA continues to have an undrawn syndicated credit line of \leq 250 million which was issued by seven banks. Furthermore, as of December 31, 2020, largely unused lines of credit in the amount of \leq 8.8 million were available to ALTANA. The terms and conditions are based on market conditions and no collateral is provided.

As of December 31, 2020 and 2019, no foreign currency denominated bank borrowings existed.

The item Other includes the earn-out liability from the previous years acquisition of all shares in Cytec Olean Inc. from Cytec Industries Inc. The unpaid purchase price of Changzhou Hongbo Paint was settled in full in 2019. Also included is a loan of \in 8.1 million (USD 9.9 million) which ALTANA received from an U.S. investment fund (see note 14). As of December 31, 2019, it also includes the remaining purchase price payment of \in 1.1 million related to the acquisition of the Hubergroup India (see note 3) and \in 3.2 million from the capital increase in the investment in dp polar (see note 15). The corresponding payments were made in 2020.

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, 2018	62,959	82,641
Changes in financial liabilities affecting cash flow	3,924	(88,455)
Acquisitions		265
non-cash changes		
Translation adjustments	(1,862)	2,597
Change in fair value	(2,563)	(1,177)
Changes in maturity	(49,177)	49,177
Leasing	37,512	14,247
Other		3,195
Balance at Dec. 31, 2019	50,793	62,489
Changes in financial liabilities affecting cash flow		(69,819)
Acquisitions		9,959
Changes in investments affecting cash flow		(3,195)
non-cash changes		
Translation adjustments	(1,046)	(3,396)
Change in fair value		
Changes in maturity	(1,505)	1,505
Leasing	364	13,235
Other		
Balance at Dec. 31, 2020	48,606	10,778

As of December 31, 2019, the item Other exclusively relates to liabilities resulting from the capital increase in dp polar.

			Due within		
		Due within one	two to five	Due after	
		year	years	five years	Total
Borrowings from banks	Dec. 31, 2019	1,137	4,072	121	5,330
	Dec. 31, 2020	1,567	2,555	133	4,255
Promissory note loans					
(German Schuldscheine)	Dec. 31, 2019	48,000			48,000
	Dec. 31, 2020				
Other	Dec. 31, 2019	4,673	3,561	8,812	17,046
	Dec. 31, 2020	326	1,915	9,412	11,653
Total	Dec. 31, 2019	53,810	7,633	8,933	70,376
	Dec. 31, 2020	1,893	4,470	9,545	15,908
Lease obligations	Dec. 31, 2019				42,906
	Dec. 31, 2020				43,476
Total debt	Dec. 31, 2019				113,282
	Dec. 31, 2020				59,384

As of December 31, 2020 and 2019, the maturity of total debt was as follows:

In the following table the maturity of the lease obligation is presented:

	Dec. 31, 2019	Dec. 31, 2020
Due within one year	11,810	9,080
Due within two to five years	18,333	17,937
Due after five years	18,758	22,078
Total minimum lease payments	48,901	49,095
Less amount representing interest	5,995	5,619
Present value of the lease liability	42,906	43,476
Less current portion	8,679	8,886
Non-current lease liability	34,227	34,590

In 2020 and 2019, respectively, cash payments from lease agreements amounted to ≤ 13.8 million and ≤ 15.5 million, of which ≤ 10.3 million and ≤ 9.7 million were attributable to payments of principal of lease liabilities, ≤ 0.8 million and ≤ 0.8 million payments of interest and ≤ 2.7 million and ≤ 5.0 million to the exercise of recognition assumptions. The expenses from lease contracts in 2020 and 2019 are presented in note 11.

As of December 31, 2020 and 2019, potential future cash payments in the amount of ≤ 0.4 million and ≤ 0.6 million, respectively, were not included in the lease obligations as it is not reasonably certain that the corresponding lease agreements will be extended (or not terminated).

As of December 31, 2020 and 2019, lease agreements entered into by ALTANA as lessee but not yet commenced will result in future cash outflows of ≤ 0.3 million ≤ 0.2 million, respectively.

24. Employee Benefit Obligations

Defined Benefit Plans

The defined benefit obligation comprises unfunded and funded plans. Of these plans approximately 91% relate to obligations in Germany, the Netherlands, and the U.S. as follows:

Defined benefit obligation	413,245	460,235
Other	21,748	42,292
U.S.	17,817	17,358
The Netherlands	33,273	34,004
Germany	340,407	366,581
		500.51,2020
	Dec. 31, 2019	Dec. 31, 2020

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 dependents' 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 dependents' 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 lifetime 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 defined benefit 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. This defined benefit plan was closed as of December 31, 2020 and a defined contribution plan was established instead as of January 1, 2021. The closure of the defined benefit plan results in no further benefits accruing under this plan for service periods after December 31, 2020. Instead, since January 1, 2021 contributions will be made into the new defined contribution plan. In 2020, the closure of the plan resulted in income of €2.8 million from past service cost.

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. Since their closure none of these three 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, 2019			Dec. 31,		
	Domestic	Foreign	Total	Domestic	Foreign	Total
Defined benefit obligation - funded	95,827	69,537	165,364	105,524	90,368	195,892
Fair value of plan assets	95,827	61,562	157,389	105,523	82,132	187,655
Funded status		7,975	7,975	1	8,236	8,237
Defined benefit obligation - unfunded	244,580	3,301	247,881	261,057	3,286	264,343
Net defined benefit obligation	244,580	11,276	255,856	261,058	11,522	272,580
Provision for other post- retirement benefits		118	118		136	136
Reported amount	244,580	11,394	255,974	261,058	11,658	272,716

	Present value of the defined ben- efit obligation	Fair value of plan assets	Total
Balance at Jan. 1, 2019	349,554	(129,223)	220,331
Service cost			
Current service cost	13,104		13,104
Past service cost	751		751
Interest expense/(income)	7,944	(3,128)	4,816
Administration cost		245	245
	21,799	(2,883)	18,916
Remeasurement			
Return on plan assets excluding amounts included in interest income		(17,355)	(17,355)
Gains/(losses) from changes in demographic assumptions	(362)		(362)
Gains/(losses) from changes in financial assumptions	39,529		39,529
Experience-based adjustments	7,648		7,648
	46,815	(17,355)	29,460
Translation adjustment	793	(681)	112
Contributions:			
Employer		(8,194)	(8,194)
Beneficiaries of the plan	3,489	(3,489)	
Pension payments	(9,205)	4,436	(4,769)
Balance at Dec. 31, 2019	413,245	(157,389)	255,856
Service cost			
Current service cost	14,785		14,785
Past service cost	(2,609)		(2,609)
Effects of settlement	(456)		(456)
Interest expense/(income)	6,272	(2,516)	3,756
Administration cost		243	243
	17,992	(2,273)	15,719
Remeasurement			
Return on plan assets excluding amounts included in interest income		(4,722)	(4,722)
Gains/(losses) from changes in			
demographic assumptions	(1,271)		(1,271)
Gains/(losses) from changes in financial assumptions	19,231		19,231
Experience-based adjustments	1,322		1,322
		(4,722)	14,560
Translation adjustment	(2,066)	1,930	(136)
Contributions:	(2,000)		(001)
Employer		(9,264)	(9,264)
Beneficiaries of the plan	4,314	(4,314)	(9,204)
Pension payments	(10,535)	5,614	(4,921)
Change in reporting entities		(17,237)	766
Balance at Dec. 31, 2020	460,235	(187,655)	272,580

			Dec. 31, 2019			Dec. 31, 2020
	German plans	Dutch plans	U.S. plans	German plans	Dutch plans	U.S. plans
		1.50/		4.00/	1.20/	2.40/
Discount rate	1.5%	1.5%	3.0%	1.2%	1.2%	2.1%
Rate of pension increase	1.8%			1.8%		

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

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 and is unchanged to the previous year.

In 2020, for the Netherlands, the most recent mortality table, "AG Prognosetafel 2020," is used, while in 2019 the "AG Prognosetafel 2018" which is subject to age-related adjustments was used. The "RPI2012 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, 2019		Dec. 31, 2020
		Effect on defined b	enefit obligation	Effect on defined benefit obligation	
		Defined benefit obligation	Change	Defined benefit obligation	Change
		in € thousand	in %	in € thousand	in %
Present value of the defined benefit obligation ¹		391,497		417,943	
Discount rate	Increase by 50 basis points	364,271	(7.0)	389,493	(6.8)
	Decrease by 50 basis points	422,478	7.9	450,362	7.8
Rate of pension increase	Increase by 50 basis points	404,138	3.2	431,358	3.2
	Decrease by 50 basis points	382,605	(2.3)	408,430	(2.3)
Life expectancy	Increase by 1 year	402,323	2.8	430,129	2.9
	Decrease by 1 year	380,621	(2.8)	405,512	(3.0)

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

			Dec. 31, 2019			Dec. 31, 2020
	Price quota- tion in an active market	No price quota- tion in an active market	Total	Price quota- tion in an active market	No price quota- tion in an active market	Total
Bonds	7,909		7,909	13,426		13,426
Money market funds	5,963		5,963	6,101		6,101
Mixed funds	89,865		89,865	99,422		99,422
Shares	8,664		8,664	14,284		14,284
Insurances		44,515	44,515		47,980	47,980
Cash and cash equivalents	398		398	1,411		1,411
Other		75	75	389	4,642	5,031
Fair value of plan assets	112,799	44,590	157,389	135,033	52,622	187,655

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

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.

In 2020 and 2019, the actual return on the plan assets amounted to \in 7.0 million and \in 20.2 million, respectively.

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

In 2021, the Company expects to pay benefits of \in 13.8 million to retirees compared to \in 12.9 million in 2020 and expects payments from plan assets of \in 8.2 million compared to \in 7.7 million in 2020. Contributions to plan assets by the employer are expected to be paid in an amount of \in 7.8 million in 2021 compared to \in 9.4 million in 2020. The expected expense for defined benefit plans including net interest expenses for 2021 is estimated to amount to \in 17.4 million compared to \in 18.2 million in 2020.

In both years reported the weighted average duration of the German, Dutch and U.S. employee benefit obligation is 20 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 ≤ 25.6 million and ≤ 26.9 million in 2020 and 2019, respectively. No further obligations exist besides the contributions paid.

25. Other Provisions

		Sales and			
	Employees	marketing	Warranty	Other	Total
Balance at Jan. 1, 2020	67,834	19,254	2,845	24,553	114,486
Additions	49,336	18,450	668	10,365	78,819
Accretion	250				250
Utilization	(39,577)	(15,902)	(607)	(7,880)	(63,966)
Reversal	(913)	(1,382)	(442)	(1,530)	(4,267)
Translation adjustments	(1,743)	(501)	(21)	(734)	(2,999)
Change in reporting entities	526	805	235	821	2,387
Balance at Dec. 31, 2020	75,713	20,724	2,678	25,595	124,710
Thereof non-current					
at Dec. 31, 2019	18,024	172		2,698	20,894
at Dec. 31, 2020	20,252	673		8,040	28,965

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 December 31, 2020 and 2019, provisions for sales bonuses amounted to \in 8.2 million and \in 7.4 million, respectively. In 2020 and 2019, \in 6.0 million and \in 6.3 million were used and \in 0.5 million and \in 1.0 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 2021.

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

26. Other Liabilities Other liabilities consist of the following:

		Dec. 31, 2019		Dec. 31, 2020
	Other	Other	Other	Other
	non-current liabilities	current liabilities	non-current liabilities	current liabilities
Balances due to fiscal authorities (incl. payroll taxes)		11,763		15,256
Personnel-related liabilities		13,285		11,345
Social security contributions	464	3,701		4,494
Employee incentive plans	26,642	14,020	23,047	22,221
Credit notes to customers		1,628		1,677
Liabilities due to related parties		93		93
Derivative financial instruments	131	2,807		67
Deferred income	1,613	1,162	1,152	1,546
Contract liability		1,390		1,756
Refund liability		1,056		4,599
Other	91	6,620		7,365
	28,941	57,525	24,199	70,419

27. 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. 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.

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, 2020 and 2019.

			Dec. 31, 2019	Dec. 31, 2019
			Carrying amount	Fair value
		Financial assets	Hedging instruments (hedge accounting)	
	at amortized	at fair value through profit or loss	at fair value	
Cash and cash equivalents	264,556			264,556
thereof in				
Cash and cash equivalents	264,556			264,556
Short-term financial assets	4,768			4,768
thereof in				
Short-term financial assets	4,768			4,768
Trade accounts receivable	381,049			381,049
thereof in				
Trade accounts receivable	380,644			380,644
Other current assets	405			405
Other interest-bearing non-derivative financial assets	22,913			22,67
thereof in				
Long-term investments	22,366			22,128
Other current assets	547			547
Other non-interest-bearing non-derivative financial assets	60,459	913		61,372
thereof in				,
Long-term investments		717		717
Other non-current assets		196		196
Other current assets	60,459			60,459
Marketable securities and long-term investments		42,610		42,610
thereof in				
Long-term investments		22,649		22,649
Marketable securities		19,961		19,96 ⁻
Derivative financial assets - hedge accounting			39	39
thereof in				
Other current assets			39	39
Derivative financial assets - without hedge accounting		1,168		1,168
thereof in				
Other non-current assets		848		848
Other current assets		320		320
	733,745	44,691	39	778,237

			Dec. 31, 2020	Dec. 31, 2020
			Carrying amount	Fair value
		Financial assets	Hedging instruments (hedge accounting)	
	at amortized cost	at fair value through profit or loss	at fair value	
Cosh and cosh anninglants	212 602			313,692
Cash and cash equivalents thereof in	313,692			515,092
Cash and cash equivalents	313,692			313,692
Short-term financial assets				5,699
thereof in				5,055
Short-term financial assets	5,699			5,699
Trade accounts receivable	401,056			401,056
thereof in				401,050
Trade accounts receivable	400,457			400,457
Other current assets				599
Other interest-bearing non-derivative financial assets	23,235			24,466
thereof in				
Long-term investments	22,661			23,892
Other current assets	574			574
Other non-interest-bearing non-derivative financial assets	57,718	1,842		59,560
thereof in				
Long-term investments		1,586		1,586
Other non-current assets		256		256
Other current assets	57,718			57,718
Marketable securities and long-term investments		49,028		49,028
thereof in				
Long-term investments		24,717		24,717
Marketable securities		24,311		24,311
Derivative financial assets - hedge accounting			277	277
thereof in				
Other current assets			277	277
Derivative financial assets - without hedge accounting		3,084		3,084
thereof in				
Other non-current assets		918		918
Other current assets		2,166		2,166
	801,400	53,954	277	856,862

			Dec. 31, 2019	Dec. 31, 2019
			Carrying amount	Fair value
		Financial liabilities	Hedging instruments (hedge accounting)	
	at amortized	at fair value	at fair value	
Trade accounts payable	184,085		· ·	184,085
thereof in				
Trade accounts payable	182,457			182,457
Other current liabilities	1,628			1,628
Other interest-bearing non-derivative financial liabilities	62,235			62,390
thereof in				
Non-current debt	13,005			12,235
Current debt	49,137			50,062
Other current liabilities	93			93
Other non-interest-bearing non-derivative financial liabilities	11,618	3,917		15,535
thereof in				
Non-current debt		3,561		3,561
Current debt	4,317	356		4,673
Other current liabilities	7,301			7,301
Derivative financial liabilities - hedge accounting			2,166	2,166
thereof in				
Other non-current liabilities			131	131
Other current liabilities			2,035	2,035
Derivative financial liabilities - without hedge accounting		772		772
thereof in				
Other current liabilities		772		772
	257,938	4,689	2,166	264,948

			Dec. 31, 2020	Dec. 31, 2020
			Carrying amount	Fair value
		Financial liabilities	Hedging instruments (hedge accounting)	
	at amortized cost	at fair value	at fair value	
Trade accounts payable	188,239			188,239
thereof in				
Trade accounts payable	186,562			186,562
Other current liabilities	1,677			1,677
Other interest-bearing non-derivative financial liabilities	12,415			12,711
thereof in				
Non-current debt	10,755			11,051
Current debt	1,567			1,567
Other current liabilities	93			93
Other non-interest-bearing non-derivative financial liabilities	10,437	3,586		14,023
thereof in				
Non-current debt		3,260		3,260
Current debt		326		326
Other current liabilities	10,437			10,437
Derivative financial liabilities - hedge accounting			18	18
thereof in				
Other non-current liabilities				
Other current liabilities			18	18
Derivative financial liabilities - without hedge accounting		49		49
thereof in				
Other current liabilities		49		49
	211,091	3,635	18	215,040

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 for which hedge accounting is not applied to or in case of an equity instrument for which the option to recognize changes in fair value in other comprehensive income (OCI option) is not exercised.

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. As of December 31, 2020 and 2019, investments not traded on the stock exchange amounting to \in 24.7 million and \in 22.6 million, respectively, are measured at fair value (hierarchy level 3). A sale of these investments is currently not planned.

The carrying amounts of the long-term investments, which are allocated to the other non-interest-bearing non-derivative financial assets, correspond to their fair values and are allocated to hierarchy level 3. The fair value can increase by a maximum of ≤ 0.2 million and relates to the funding agreement for another Israeli investment described in note 14.

The carrying amounts of derivative financial assets and liabilities equal their fair values. These are generally measured as the present value of the expected future cash inflows and outflows of the financial instruments in consideration of the credit risk and are allocated to hierarchy level 2.

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 present values are calculated taking the currency, interest rates and duration parameters at each reporting date into consideration (hierarchy level 2). The fair value of the other non-interest-bearing non-derivative financial liabilities allocated to other non-current liabilities is also determined as the present value of the expected future cash inflows and outflows of the financial instruments and is allocated to hierarchy level 2.

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 +/- €1.1 million (2019: +/- €2.0 million). As of December 31, 2020 and 2019, these debts amount to €3.6 million and €3.9 million. In 2020, the decrease of the liability results from exchange rate effects of €0.3 million. In 2019, the decrease of the liabilities results from the change in the fair value measurement of €3.7 million, from payments amounting to €0.9 million and from exchange rate effects of €0.2 million. Exchange rate effects are reported in other comprehensive income.

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 determined as a multiple of a profit target considering different scenarios.

The options have a term of multiple years.

As of December 31, 2020 and 2019, the carrying amount of the derivative share option was ≤ 0.9 million and ≤ 0.8 million, respectively. Unrealized gains of ≤ 0.1 million and ≤ 0.2 million are reported in the financial result.

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 mainly includes impairment losses on trade accounts receivable.

	Net financial	Net operating	
	result	result	Net result
Dec. 31, 2019			
at amortized cost	1,166	(648)	519
thereof from:			
Financial assets	3,736	(648)	3,089
Financial liabilities	(2,570)		(2,570)
at fair value through profit or loss	8,274		8,274
thereof from:			
Financial assets	4,535		4,535
Financial liabilities	3,739		3,739
Derivatives at fair value through profit and loss	114		114
Total	9,555	(648)	8,907

	Net financial	Net operating	
	result	result	Net result
Dec. 31, 2020			
at amortized cost	(4,026)	(5,753)	(9,779)
thereof from:			
Financial assets	(539)	(5,753)	(6,292)
Financial liabilities	(3,487)		(3,487)
at fair value through profit or loss	1,824		1,824
thereof from:			
Financial assets	1,824		1,824
Financial liabilities			
Derivatives at fair value through profit and loss	4,173		4,173
Total	1,971	(5,753)	(3,782)

In 2020 and 2019, the net financial result includes interest income generated by financial instruments measured at amortized cost amounting to ≤ 2.0 million and ≤ 3.5 million and interest expense incurred by financial instruments measured at amortized cost amounting to ≤ 1.7 million and ≤ 2.6 million. Interest income and interest expense are measured by applying the effective interest method.

In 2020 and 2019, impairment losses on financial instruments at amortized cost amount to \in 7.2 million and \in 2.8 million. Of these amounts \in 7.2 million and \in 2.8 million relate to trade accounts receivable. In 2020, impairment losses include risk provisions for potentially increased insolvency risks resulting from the coronavirus pandemic amounting to \in 4.1 million.

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 (for lease liabilities not included in the following table see separate disclosure in note 23) and derivative financial instruments with a positive and a negative fair value. All non-derivative and derivative financial instruments as of December 31, 2020 and 2019, 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	
		Due within one	two to five	Due after
		year	years	five years
Trade accounts payable	Dec. 31, 2019	184,085		
	Dec. 31, 2020	188,239		
Other interest-bearing non-derivative				
financial liabilities	Dec. 31, 2019	50,459	4,137	8,934
	Dec. 31, 2020	1,701	2,580	8,201
Other non-interest-bearing non-				
derivative financial liabilities	Dec. 31, 2019	11,974	3,561	
	Dec. 31, 2020	10,763	1,915	1,345
Irrevocable credit commitments and				
other financial contingent liabilities	Dec. 31, 2019	3,430		
	Dec. 31, 2020	9,764		
Total	Dec. 31, 2019	249,948	7,698	8,934
	Dec. 31, 2020	210,467	4,495	9,546

			Due within	
		Due within one	two to five	Due afte
		year	years	five years
Forward foreign exchange contracts with positive fair value				
Cash inflow	Dec. 31, 2019	25,444	2,016	
Cash outflow	Dec. 31, 2019	(25,224)	(1,985)	
Net	Dec. 31, 2019	220	31	
Cash inflow	Dec. 31, 2020	97,314		
Cash outflow	Dec. 31, 2020	(95,005)		
Net	Dec. 31, 2020	2,309		
Forward foreign exchange contracts with negative fair value				
Cash inflow	Dec. 31, 2019	76,526	6,248	
Cash outflow	Dec. 31, 2019	(79,669)	(6,476)	
Net	Dec. 31, 2019	(3,143)	(228)	
Cash inflow	Dec. 31, 2020	9,037		
Cash outflow	Dec. 31, 2020	(9,136)		
Net	Dec. 31, 2020	(98)		

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 17), 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 component.

As of December 31, 2020 and 2019, other receivables and assets include bills receivable from Chinese customers in the amount of \in 56.8 million and \in 59.8 million for which a risk provision of \in 0.1 million and \in 0.2 million was recognized. Due to this low credit risk, ALTANA uses this option: The expected credit default is determined based on an expected loss within 12 months ("low credit risk assets").

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

	Dec. 31, 2019	Dec. 31, 2020
Exposure applying the impairment model		
Financial assets - at amortized cost	733,745	801,400
Exposure without application of the impairment model		
Financial assets - at fair value through profit or loss	44,691	53,954
Total	778,436	855,354

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

Regarding the possible negative financial impact of the coronavirus pandemic see note 17.

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, CHF 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		Change in other comprehensive income	
		exchange rate plus 10 %	exchange rate minus 10 %	exchange rate plus 10 %	exchange rate minus 10 %
Derivatives					
USD	Dec. 31, 2019	2,525	(2,525)	2,672	(2,672)
	Dec. 31, 2020	3,026	(3,026)	302	(302)
JPY	Dec. 31, 2019	246	(246)	2,891	(2,891)
	Dec. 31, 2020	949	(949)	191	(191)
CHF	Dec. 31, 2019	1,016	(1,016)		
-	Dec. 31, 2020	595	(595)		
CNY	Dec. 31, 2019	1,386	(1,386)		
	Dec. 31, 2020	1,040	(1,040)		
Total	Dec. 31, 2019	5,173	(5,173)	5,563	(5,563)
	Dec. 31, 2020	5,610	(5,610)	493	(493)

		Effect on profit or loss		
		exchange rate plus 10 %	exchange rate minus 10 %	
Other financial instruments				
USD	Dec. 31, 2019	(4,107)	4,107	
	Dec. 31, 2020	(3,645)	3,645	
JPY	Dec. 31, 2019	(1,042)	1,042	
	Dec. 31, 2020	(1,228)	1,228	
CNY	Dec. 31, 2019	(1,416)	1,416	
	Dec. 31, 2020	(1,028)	1,028	
Total	Dec. 31, 2019	(6,565)	6,565	
	Dec. 31, 2020	(5,901)	5,901	

Interest Rate Risk: ALTANA is exposed to changes in interest rates. The majority of interestsensitive 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. This has no effect on the other comprehensive income.

The following table shows the profit or loss effect 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.

		Effect on profit or los	
		plus 50 basis points	minus 50 basis points
Other financial instruments	Dec. 31, 2019	109	(109)
	Dec. 31, 2020	131	(131)

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, In-house bank accounts as well as accounts receivable and accounts payable.

In 2020, ALTANA's In-house Bank was further expanded. The objective is to centralize the foreign currency exposures of the Group companies by using In-house bank accounts. ALTANA AG determines its foreign currency exposure daily through the ALTANA In-house bank and hedges this exposure by foreign currency balances and forward transactions taking into account natural hedges. The focus is placed on the major foreign group currencies.

Until December 31, 2019 forecast transactions of subsidiaries with external counterparties were hedged as follows: Hedging instruments with maximum terms of up to 18 months were used to hedge forecast transactions of subsidiaries in USD and JPY and were 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 were hedged. The volume of the hedged transactions as described above was reduced when the occurrence of the transactions was not highly probable. The forward exchange contracts concluded under this hedging strategy still have a remaining maturity of a maximum of five months.

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, 2020 and 2019, the fair values are as follows:

		Positive fair value	Negative fair value	Total fair value
USD	Dec. 31, 2019		(1,277)	(1,277)
	Dec. 31, 2020	138		138
JPY	Dec. 31, 2019	39	(889)	(850)
	Dec. 31, 2020	140	(18)	121
Gesamt	Dec. 31, 2019	39	(2,166)	(2,127)
	Dec. 31, 2020	277	(18)	259

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 2020 and 2019, a decrease in fair value of ≤ 0.3 million and ≤ 3.4 million, respectively, was recognized in other comprehensive income. In 2020 and 2019, ≤ 3.6 million and ≤ 3.0 million, respectively, were reclassified as reduction of net sales 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			ge in fair value neffectiveness		He	dging / Cost of He for Cas	edging Reserve h Flow Hedges
				hedging instrument	underlying transaction		active		discontinued
						designated component	non- designated component	designated component	non- designated component
Derivative assets									
thereof									
USD	Dec. 31, 2019								
	Dec. 31, 2020	3,745	138	138	(147)	229	(156)	57	(63)
JPY	Dec. 31, 2019	4,329	39	39	(34)	41	(2)		
	Dec. 31, 2020	5,402	140	140	(129)	147	(5)		
Derivative liabilities									
thereof									
USD	Dec. 31, 2019	25,412	(1,277)	(1,277)	1,229	(527)	(836)	(405)	(242)
	Dec. 31, 2020							42	(73)
JPY	Dec. 31, 2019	26,505	(889)	(889)	929	(973)	(12)	(206)	(5)
	Dec. 31, 2020	2,194	(18)	(18)	21	(21)	0	(11)	0

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

		Total nominal amount	Nominal amount due in 2021 (prior year: 2020)	Nominal amount due in 2022 (prior year: 2021)	average hedging rate
USD	Dec. 31, 2019	30,349	26,280	4,069	1.19
	Dec. 31, 2020	4,430	4,430		1.18
JPY	Dec. 31, 2019	3,863,000	3,273,000	590,000	125.28
	Dec. 31, 2020	938,000	938,000		123.49

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.

	Dec. 31, 2020	148		Other operating expenses / income		(3,622)	Net sales
	Dec. 31, 2019	(3,167)	(0)	Other operating expenses / income		(2,994)	Net sales
Currency risk hedging							
					adjustment of the hedging relationship	realization	
	gains / losses recognized in equity	recognized in	Ineffectiveness recognized in profit and loss	Item of the statement of comprehensive income for recording ineffectiveness	Reclassification from the CFH reserve to profit or loss due to		Item in the statement of comprehensive income that contains the reclassification

The following table shows the development of other comprehensive income from foreign currency cash flow hedges:

	designated component	non-designated component
Balance at Jan. 1, 2019	(1,448)	(868)
Change in fair value of derivative financial instruments	(2,175)	(1,189)
Reasons for reclassification:		
Realization of the underlying transaction	1,552 ¹	961
Balance at Dec. 31, 2019	(2,071)	(1,096)
Change in fair value of derivative financial instruments	21	(329)
Reasons for reclassification:		
Realization of the underlying transaction	2,494	1,128
Balance at Dec. 31, 2020	444	(297)

¹This includes a hedging effect of €-481 thousand resulting from a capital increase in the investment in Landa, accounted for applying the equity method.

Hedging of Intercompany Foreign Currency Exposure

Foreign currency loans and foreign currency In-house bank accounts: In 2020, ALTANA entered into forward foreign exchange contracts with a nominal value of USD 176.6 million (2019: USD 145.0 million), of JPY 8,270.0 million (2019: JPY 630.0 million) and of CHF 244.3 million (2019: CHF 15.0 million) to hedge intercompany foreign currency loans and In-house bank accounts 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 and consequently, changes in their fair values are recognized in the financial result. Foreign currency accounts receivable: In 2020, ALTANA entered into forward foreign exchange contracts with a nominal value of CNY 229.7 million (2019: CNY 271.3 million) to hedge foreign currency accounts receivable. The hedged items are sales to one subsidiary denominated in CNY which are not designated in a hedging relationship. The change in fair value of these forward foreign exchange contracts is reported in financial result accordingly.

Fair value of foreign currency items: The following table provides the fair value of all foreign currency items.

		Positive	Negative	Total
-		fair value	fair value	fair value
USD	Dec. 31, 2019		(303)	(15)
030	Dec. 31, 2019	1,263	(303)	1,263
JPY	Dec. 31, 2020	1,205	(45)	(45)
JF 1	Dec. 31, 2019	304	(45)	(43) 304
CHF	Dec. 31, 2020		(367)	(356)
	Dec. 31, 2020	487		487
GBP	Dec. 31, 2019			
	Dec. 31, 2020	5	(2)	3
CNY	Dec. 31, 2019	21	(56)	(35)
	Dec. 31, 2020	108	(4)	104
MXN	Dec. 31, 2019			
	Dec. 31, 2020		(43)	(43)
Gesamt	Dec. 31, 2019	320	(772)	(451)
	Dec. 31, 2020	2,166	(49)	2,117

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:

			Offsetting		Potential offsetting	
			amounts, offset in the statements		amounts, not offset in the	Net amount after
		Gross carrying amount	of financial position	Net carrying amount	statements of financial position	potential offsetting
Receivables from forward foreign exchange transactions	Dec. 31, 2019	359		359	359	0
	Dec. 31, 2020	2,443	-	2,443	67	2,376
Trade accounts receivable	Dec. 31, 2019	389,261	8,618	380,644		380,644
	Dec. 31, 2020	408,018	7,561	400,457		400,457
Total	Dec. 31, 2019	389,620	8,618	381,003	359	380,644
	Dec. 31, 2020	410,461	7,561	402,900	67	402,833

		Gross carrying amount	Offsetting amounts, offset in the statements of financial position	Net carrying amount	Potential offsetting amounts, not offset in the statements of financial position	Net amount after potential offsetting
Liabilities from forward foreign exchange transactions	Dec. 31, 2019	2,938		2,938	359	2,579
	Dec. 31, 2020	67		67	67	
Trade accounts payable	Dec. 31, 2019	183,550	1,093	182,457		182,457
	Dec. 31, 2020	187,866	1,304	186,562		186,562
Total	Dec. 31, 2019	186,488	1,093	185,396	359	185,037
	Dec. 31, 2020	187,933	1,304	186,629	67	186,562

28. Commitments and **Guarantees and Other Commitments** Contingencies

	Dec. 31, 2019	Dec. 31, 2020
Purchase commitments for intangible assets	2,463	2,339
Purchase commitments for property, plant and equipment	27,870	26,043
Guarantee for pension obligation from divestments	9,392	8,869
Other contingent financial liabilities	3,430	6,677
	43,155	43,928

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.

In 2020, the increase in Other contingent financial liabilities results from a financial commitment for Landa in the amount of \in 3.4 million.

29. 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 30 and the regular dividends distributed to SKion GmbH no other business relationship existed.

> 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 SKion Digital Printing GmbH, Enviro Group, Eliquo Water Group, SKion Water International Group and Paques 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, 2019	Dec. 31, 2020
Receivables from related parties	95	295
Liabilities due to related parties	3,705	477

	2019	2020
Related party transactions		
Sales	547	336
Other income	36	179
Services and goods acquired	1,886	2,211
Lease expense / lease payments	2,529	2,425
Interest income	24	

In 2020 and 2019, 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 respectively lease payments relate to lease contracts for company cars with Alphabet Fuhrparkmanagement GmbH (BMW Group). In 2020 and 2019, further transactions with BMW Group are included in revenues in the amount of ≤ 0.3 million and ≤ 0.5 million, respectively.

In 2019, SKion Digital Printing GmbH, a subsidiary of SKion GmbH, reimbursed costs of \in 35 thousand and interest of \in 24 thousand in connection with the loan granted to Landa Labs.

30. 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 2020 and 2019, respectively, compensation of the Supervisory Board amounted to $\in 0.9$ million and $\in 1.0$ million of which $\in 0.3$ million and $\in 0.4$ 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 independent 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 2020 was determined on a one-year basis. It is based on the development of earnings before interest, taxes and depreciation and amortization (EBITDA) and EBITDA in relation to consolidated sales (EBITDA margin), each in comparison to the respective target values established by the Supervisory Board. The long-term bonus 2020 was calculated based on the nominal sales development in relation to a group of comparable chemical companies, the operating sales development and the development of net income after cost of capital ("ALTANA Value Added") over an assessment period of three years, each in comparison to the respective target values established by the Supervisory board. In 2020, as a component with long-term incentive, the Management Board members were granted AEP Awards under the "ALTANA Equity Performance 2020" (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.

2020

In 2020 and 2019, total compensation paid in cash to the Management Board including remuneration in kind amounted to \leq 4.5 million and \leq 3.6 million, respectively, of which \leq 1.8 million related to fixed compensation in both years, and \leq 2.7 million and \leq 1.8 million, respectively, related to variable compensation. On December 31, 2020 and 2019, provisions for post-employment benefits of \leq 4.5 million and \leq 4.1 million were recognized; the corresponding service cost amounted to \leq 0.6 million in both years reported.

In 2020, the Management Board members received AEP Awards as compensation with a long-term incentive effect from the "ALTANA Equity Performance 2020" (AEP) plan. In 2020 and 2019, 2,823 and 2,795 AEP Awards, respectively, were granted to the Management Board, with a value of €0.8 million in both years reported. 2019, at the end of the term of the AEP Tranche 2016 1,544 AEP Awards were finally allocated and payments of €0.5 million were paid to the beneficiaries in 2020. In 2019, after the end of the term (December 31, 2018) of the AEP Tranche 2015, no AEP Awards were finally allocated and no payment was made to the beneficiaries. When the AEP Tranche 2019 was issued, the relevant plan conditions were adjusted and changed for the current 2017 and 2018 tranches. As of December 31, 2020 and 2019, respectively, provisions for AEP Awards amounted to €2.1 million and €0.9 million; personal investment was measured at €0.8 million and €0.7 million and is recognized in other liabilities (see note 26). In 2020 and 2019, these amounts include deposits made by the members of the Management Board of €0.5 million and €0.4 million, respectively. For more details on the AEP see note 22.

For former members of the Management Board and their surviving dependents, a pension provision in the amount of \in 18.7 million and \in 18.5 million was recorded as of December 31, 2020 and 2019, respectively. Pension payments totaled \in 1.0 million and \in 1.1 million, respectively.

31. Fees Paid to the Auditor

	LULU
Audit of the financial statements	1,375
Other assurance services	45
Tax advisory services	4
	1,424

32. Subsequent Events

In addition to the acquisitions reported in note 3, on February 4, 2021 ALTANA submitted a binding offer in the double-digit million range for the acquisition of a business to be integrated into the ACTEGA division.

33. Additional Information The financial statements of ALTANA AG and its subsidiaries are included in the Consolidated Financial Statements of SKion GmbH, Bad Homburg v.d.H. SKion GmbH is the parent company which prepares the Consolidated Financial Statements for the smallest and the largest group of companies to which ALTANA AG belongs as a subsidiary. The Consolidated Financial Statements are filed with the commercial register of Bad Homburg v.d.H., HRB 7569 and are published in the Federal Gazette.

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 ALTANA New Technologies GmbH, Wesel HELIOSONIC GmbH, Wesel ECKART International Trading GmbH, Hartenstein 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 and Member (until May 28, 2020) Former Member of the Management Board of L'Air Liquide S.A. Member of the Supervisory Board since 2001

Dr. Matthias L. Wolfgruber Chairman (since May 29, 2020) (appointed until the Annual General Meeting 2021) Former Chairman of the Management Board of ALTANA AG Member of the Supervisory Board since 2016 Other functions: ARDEX GmbH² (Chairman) Cabot Corporation² Grillo Werke AG¹ LANXESS AG¹ (Chairman)

Ulrich Gajewiak* Deputy Chairman (appointed until the Annual General Meeting 2023) Chairman of the works council at the Wesel site Chairman of the Group's works council Member of the Supervisory Board since 2003

Susanne Klatten

Deputy Chairwoman (appointed until the Annual General Meeting 2023) Entrepreneur Member of the Supervisory Board since 1993 Other functions: Bayerische Motoren Werke AG¹ SGL Carbon SE¹ (Chairwoman) SprinD GmbH² UnternehmerTUM GmbH²

Dr. Anette Brüne*

(appointed until the Annual General Meeting 2023) Global Head of Marketing & Sales Services of BYK Member of the Supervisory Board since 2013

Dr. Monika Engel-Bader

(appointed until the Annual General Meeting 2022) Former Managing Director of Chemetall GmbH Consultant Member of the Supervisory Board since 2012 Other functions: OQ Chemicals International Holding GmbH² OQ Chemicals Holding GmbH²

Armin Glashauser*

(appointed until the Annual General Meeting 2023) Head of works council ECKART GmbH Member of the Supervisory Board since 2007

Klaus Koch*

(appointed until the Annual General Meeting 2023) Manager operational controlling ECKART GmbH Member of the Supervisory Board since 2010

Prof. Dr. Frank Richter

(since May 29, 2020, appointed until the Annual General Meeting 2025) Managing Director of SKion GmbH Member of the Supervisory Board since 2020

Beate Schlaven* (appointed until the Annual General Meeting 2023) Employee Quality Management ACTEGA Rhenania GmbH Member of the Supervisory Board since 2018

* Employee representative

² Membership in other comparable domestic and foreign supervisory bodies

¹ Membership in other statutory supervisory boards

Dr. Jens Schulte

(appointed until the Annual General Meeting 2023) Member of the Management Board of Schott AG Member of the Supervisory Board since 2018 Other functions: NNAISENSE S.A.²

Stefan Soltmann*

(appointed until the Annual General Meeting 2023) Head of the Labor and Operational Politics Section of the Mining, Chemical and Energy Industrial Union (IG BCE) Member of the Supervisory Board since 2019 Other functions: Dow Olefinverbund GmbH¹

Dr. Antonio Trius

(appointed until the Annual General Meeting 2022) Former Managing Director of Cognis GmbH Member of the Supervisory Board since 2012 Other functions: Azelis Finance Sarl² Cuantum Medical Cosmetics S.L.² Igenomix SL²

* 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 (until May 28, 2020, Chairman) Dr. Matthias L. Wolfgruber (since May 29, 2020, Chairman) Ulrich Gajewiak Susanne Klatten Beate Schlaven

Audit Committee Dr. Jens Schulte (Chairman) Armin Glashauser Stefan Soltmann Dr. Antonio Trius

Mediation Committee (in accordance with section 27 (3) of the German Codetermination Act) Dr. Klaus-Jürgen Schmieder (until May 28, 2020 Chairman) Dr. Matthias L. Wolfgruber (since May 29, 2020, Chairman) Ulrich Gajewiak Susanne Klatten Klaus Koch Management Board of ALTANA AG

Martin Babilas Chairman (appointed until April 30, 2025) 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 Ltd.²

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 USA Inc.² (Chairman) ECKART GmbH¹ Landa Corporation Ltd.²

* Employee representative

¹ Membership in other statutory supervisory boards

² Membership in other comparable domestic and foreign supervisory bodies

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