Consolidated Financial Statements

» In short «

With a continuously very good equity ratio of

51.5%

the Group has a solid and sustainable financing structure and healthy balance sheet ratios.

Consolidated Statement of Comprehensive Income

Consolidated Statement of Income

in thousand euros	Note No.	1/1–31/12/2020	1/1–31/12/2019
Revenue	4.1	767,196	855,235
Cost of Sales	4.2	505,005	563,435
Gross profit		**262,192**	**291,801**
Research and development expenses	4.3	43,655	44,052
Selling expenses	4.4	86,401	89,349
General administrative expenses	4.5	61,755	60,539
Impairment gains and losses	4.7	3,919	−2,746
Other operating income	4.8	20,616	16,846
Other operating expenses	4.9	35,604	23,045
EBIT		**59,312**	**88,915**
Financial income	4.10	5,458	5,345
Financial expenses	4.10	11,534	9,055
Financial result		**−6,077**	**−3,709**
Earnings before tax		**53,235**	**85,206**
Income taxes	4.11	−10,504	−17,565
Earnings after tax		**42,731**	**67,641**
Results from non-controlling interests	4.12	963	−11
Earnings attributable to shareholders		41,769	67,652
Earnings per share in euros (undiluted = diluted)	4.13	**0.73**	**1.18**

Consolidated Comprehensive Income

in thousand euros	Note No.	1/1 – 31/12/2020	1/1 – 31/12/2019
Earnings after tax		**42,731**	**67,641**
Items that will never be reclassified to profit or loss	5.16	−2,620	5,923
Actuarial gains/losses arising from the valuation of pensions and similar obligations		−2,096	6,704
Equity instruments measured at fair value through other comprehensive income		−1,375	977
Income taxes		851	−1,758
Items that are or may be reclassified to profit or loss	5.16	−7,207	7,063
Cash flow hedges		3,987	−169
Foreign currency exchange differences		−11,328	8,353
Income taxes		134	−1,121
Total other comprehensive income		**−9,827**	**12,986**
Total comprehensive income		**32,904**	**80,627**
Thereof attributable to:			
Non-controlling interests		889	−14
Shareholders		32,015	80,641

153 Consolidated Financial Statements 232

Consolidated Statement of Financial Position

Assets in thousand euros	Note no.	31/12/2020	31/12/2019
Non-current assets		**848,943**	**555,207**
Intangible assets	5.1	487,075	212,736
Property, plant and equipment	5.2/5.4	263,499	251,123
Investment property	5.3	4,175	4,263
Investments accounted for using the equity method	5.5	13,410	5,776
Financial investments	5.6	2,926	2,497
Other non-current assets	5.7	3,276	1,094
Deferred tax assets	5.8/4.11	74,583	77,718
Current assets		**489,900**	**528,126**
Inventories	5.9	191,406	153,678
Current trade receivables	5.10	138,010	136,881
Contract assets	5.11	74,735	54,875
Other current financial assets	5.12	6,492	5,449
Other current non-financial assets	5.13	10,958	8,557
Current financial investments	5.14	4,894	69,661
Cash and cash equivalents	5.15	63,405	99,025
Total assets		**1,338,843**	**1,083,333**

Equity and liabilities in thousand euros	Note no.	31/12/2020	31/12/2019
Equity	5.16	**689,391**	**655,444**
Share capital		148,819	148,819
Capital reserve		194,286	194,286
Other reserves		334,668	311,682
Non-controlling interests	5.17	11,618	657
Non-current liabilities		**233,029**	**176,008**
Pension provisions	5.18	35,178	31,643
Other non-current provisions	5.20	17,039	17,864
Non-current financial debt	5.22	138,410	122,562
Other non-current liabilities	5.23	29,545	2,254
Deferred tax liabilities	5.8/4.11	12,858	1,685
Current liabilities		**416,423**	**251,881**
Tax provisions	5.19	2,624	6,443
Other current provisions	5.20	52,482	51,887
Current financial debt	5.22	130,871	36,996
Current trade payables	5.24	89,747	83,730
Contract liabilities	5.27	46,274	43,882
Other current financial liabilities	5.25	75,327	12,520
Other current non-financial liabilities	5.26	19,098	16,423
Total equity and liabilities		**1,338,843**	**1,083,333**

Consolidated Statement of Cash Flows

in thousand euros	1/1–31/12/2020	1/1–31/12/2019
Earnings before tax	**53,235**	**85,206**
Financial income and expenses	7,716	3,786
Depreciation and amortization	50,879	43,809
Impairment losses and reversals of impairment losses	1,459	1,222
Profit/loss from asset disposals	−895	169
Other non-cash income/expenses	−651	−1,997
Change in provisions	−4,785	−7,765
Change in working capital	−3,736	−2,748
Change in other assets and liabilities	−934	−118
Cash flows from operating activities before income tax payments	**102,288**	**121,563**
Income tax payments	−12,540	−12,670
Cash flows from operating activities	**89,748**	**108,892**
Capital expenditure for intangible assets	−16,811	−11,473
Proceeds from sale of property, plant and equipment	3,312	627
Capital expenditure for property, plant and equipment	−26,489	−33,474
Acquisition of consolidated entities less acquired cash	−220,382	−774
Proceeds from sale for financial assets within the framework of short-term disposition	89,900	60,159
Capital expenditure for financial assets within the framework of short-term disposition	−20,000	−69,900
Proceeds from other financial investments	626	108
Capital expenditure for other financial investments	−405	0
Interest received and other income	1,805	346
Cash flows from investing activities	**−188,443**	**−54,381**
Dividends paid	−8,426	−20,033
Acquisition of non-controlling interests	−1,711	0
Proceeds from issuing bonds and loans	177,686	6,782
Repayments of bonds and loans	−86,073	−21,257
Payments for leases	−12,259	−9,875
Change in group financing	−537	2,003
Interest paid and other expenses	−4,964	−3,746
Cash flows from financing activities	**63,716**	**−46,127**
Change in cash and cash equivalents	**−34,980**	**8,384**
Effects of movements in exchange rates on cash held	−737	1,009
Change in cash and cash equivalents due to changes in the scope of consolidation and valuation adjustments	97	377
Cash and cash equivalents at the beginning of the period	99,025	89,255
Cash and cash equivalents at the end of the period	**63,405**	**99,025**

Statement of Changes in Equity

in thousand euros	Note no.	Share capital	Capital reserve	Retained earnings	Equity instruments measured through other comprehensive income
Balance at 1/1/2019		**148,819**	**194,286**	**281,938**	**197**
Changes in accounting policies [1]				−3,102	
Balance at 1/1/2019 [1]		**148,819**	**194,286**	**278,837**	**197**
Net profit for the period	4.12/4.13			67,652	
Other comprehensive income after tax	2.3/5.16/5.18/8.2				685
Total comprehensive income				**67,652**	**685**
Dividends				−20,033	
Other adjustments				1	
Balance at 31/12/2019		**148,819**	**194,286**	**326,456**	**882**
Balance at 1/1/2020		**148,819**	**194,286**	**326,456**	**882**
Net profit for the period	4.12/4.13			41,769	
Other comprehensive income after tax	2.3/5.16/5.18/8.2				−965
Total comprehensive income				**41,769**	**−965**
Changes in the scope of consolidation	2.1/2.4				
Acquisition of non-controlling interests	2.1			−1,565	
Dividends				−7,441	
Other adjustments				−23	
Balance at 31/12/2020		**148,819**	**194,286**	**359,196**	**−83**

[1] Adjusted due to initial application of IFRS 16

Cash flow hedges	Cumulative exchange differences	Actuarial effects	Equity attributable to shareholders of JENOPTIK AG	Non-controlling interests	Total	
−1,793	**795**	**−26,961**	**597,281**	**671**	**597,952**	**Balance at 1/1/2019**
			−3,102	0	−3,102	Changes in accounting policies[1]
−1,793	**795**	**−26,961**	**594,179**	**670**	**594,850**	**Balance at 1/1/2019[1]**
			67,652	−11	67,641	Net profit for the period
−97	7,205	5,196	12,989	−3	12,986	Other comprehensive income after tax
−97	**7,205**	**5,196**	**80,641**	**−14**	**80,627**	**Total comprehensive income**
			−20,033		−20,033	Dividends
			1		1	Other adjustments
−1,890	**8,000**	**−21,765**	**654,788**	**656**	**655,444**	**Balance at 31/12/2019**
−1,890	**8,000**	**−21,765**	**654,788**	**656**	**655,444**	**Balance at 1/1/2020**
			41,769	963	42,731	Net profit for the period
2,787	−9,918	−1,658	−9,754	−73	−9,827	Other comprehensive income after tax
2,787	**−9,918**	**−1,658**	**32,015**	**889**	**32,904**	**Total comprehensive income**
				10,218	10,218	Changes in the scope of consolidation
			−1,565	−146	−1,711	Acquisition of non-controlling interests
			−7,441		−7,441	Dividends
			−23		−23	Other adjustments
897	**−1,918**	**−23,423**	**677,774**	**11,617**	**689,391**	**Balance at 31/12/2020**

Notes

1 Presentation of the Group Structure

1.1 Parent company

The parent company is JENOPTIK AG, Jena, Germany, and is registered in the Commercial Register of Jena in Department B under the number 200146. JENOPTIK AG is listed on the German Stock Exchange in Frankfurt and traded on the TecDax and SDax, amongst others.

The list of shareholdings of the Jenoptik Technology Group is published in the Federal Gazette in accordance with § 313 (2) Nos. 1 to 4 of the German Commercial Code (Handelsgesetzbuch [HGB]) and is disclosed from page 231 in the Notes under the heading "List of Shareholdings of the Jenoptik Group". The entities to which the simplification relief regulations were applied as specified in § 264 (3) or § 264b of the HGB, are disclosed in the section "Required and Supplementary Disclosures under HGB".

1.2 Accounting principles

The consolidated financial statements of JENOPTIK AG were prepared for the 2020 fiscal year in accordance with the International Financial Reporting Standards (IFRS) and the binding interpretations of the International Financial Reporting Interpretations Committee (IFRIC) in force at the reporting date for use in the European Union.

The consolidated financial statements were presented in euros. Unless otherwise specified, all amounts are presented in thousand euros. Please note that there may be rounding differences compared to the mathematically exact amounts (monetary units, percentages, etc.). The consolidated statement of income was prepared in accordance with the cost of sales method.

The fiscal year of JENOPTIK AG and of its subsidiaries included in the consolidated financial statements corresponds with the calendar year.

In order to improve the clarity of the presentation, individual items were aggregated in the statement of total other comprehensive income and the statement of financial position. The classifications used for these items are listed in the Notes.

Changes in accounting policies

The following IFRS were applied for the first time in the fiscal year 2020:

Amendments to IFRS 3: Definition of a business operation. The amendments to IFRS 3 regarding the definition of a business operation were published in October 2018. They are intended to help companies determine whether a transaction should be accounted for as a merger or acquisition of assets. They specify the minimum requirements for a business operation (existence of input factors and a substantial process that essentially enables outputs to be generated). The assessment previously required as to whether market participants are able to replace missing elements in this process, no longer applies. Additional guidance is intended to help assess whether an acquired process is substantial. In addition, the definitions of a business operation and output have been narrowed down to the extent that these must involve services to customers. An optional concentration test will also be introduced to facilitate a simplified assessment.

The changes did not affect the acquisitions of the company in the 2020 fiscal year but may affect future mergers of Jenoptik.

Amendments to IFRS 9, IAS 39 and IFRS 7: Interest Rate Benchmark Reform. – Phase 1 The amendments to IFRS 9, IAS 39 and IFRS 7 in relation to the Interest Rate Benchmark Reform were published in September 2019. The amendments represent the first phase of the IASB's work on the impact of the reform of the Interbank Offered Rates (IBOR). The internationally targeted reforms led to uncertainties regarding the long-term viability of the previous IBOR. The amendments provide for temporary reliefs both in IFRS 9 and IAS 39 that are intended to allow hedge accounting to be maintained in the period prior to the formal replacement of existing interest rate benchmarks through alternative, near risk-free rates (RFR). The reliefs apply to all hedging relationships directly affected by the reform of the interest rate benchmarks. When reviewing how a cash flow hedge can be recognized in the statement of financial position, the assumption is that the reforms will not lead to any changes to the interest rate benchmarks. The same applies to the assessment of the economic relationship under IFRS 9 or the effectiveness assessment in accordance with IAS 39.

The amendments are to be applied for fiscal years from January 1, 2020. There are no financial instruments in hedging transactions that are linked to the IBOR as the reference interest rate. To that extent, the changes have no impact on the consolidated financial statements for the fiscal year 2020.

Amendments to IFRS 16: Rental concessions in connection with COVID-19. In May 2020, the IASB published an amendment to IFRS 16 with an optional relief for lessees that allows for a waiver of the assessment as to whether a concession in conjunction with COVID-19 constitutes a modification of the lease under IFRS 16. Lessees can instead account for these rental concessions using the same method that would apply if this did not involve a modification of the lease contract.

The amendments are to be applied from June 1, 2020. As there were no rental concessions in the context of COVID-19 for the Jenoptik Group companies, the optional relief is not applicable, so the changes do not affect the consolidated financial statements.

Amendments to IAS 1 and IAS 8: Definition of materiality. The amendments to IAS 1 and IAS 8 in relation to the definition of materiality were published in October 2018. Information is deemed material if the omission, misrepresentation or obfuscation of such information could reasonably influence the decision of the primary addressees. For the first time, the new definition of materiality takes into account the concealment of information as a measure of materiality in terms of the information. It is aimed at the primary financial statement addressees as these have been defined in the conceptual framework since 2010. Furthermore, information must be reasonably able to influence their decisions in order to be deemed material. The amendments were made in order to adapt the definition to the statements on materiality in the 2018 framework concept and to make them generally more easily applicable.

The amendments are to be applied for fiscal years commencing January 1, 2020. The changes in content have already been taken into account in the context of previous materiality assessments, so these will not impact on the consolidated financial statements.

Changes in references to the IFRS framework concept. The amended framework concept was published by the IASB in March 2018. The published framework concept contained a revision of the basics of financial reporting and added topics that were previously not included in the regulations. As a result of the amendments in the framework concept, numerous references in individual standards and interpretations have been amended.

The amended references to the framework concept must be taken into account when applying the relevant standards and interpretations for fiscal years commencing January 1, 2020. The amendments to the references will have no material impact on the consolidated financial statements.

Standards which have been published but not yet adopted by the EU as mandatory

The application of the following standards and interpretations published by the IASB and adopted by the EU is not yet mandatory and were not taken into account by Jenoptik in the consolidated financial statements as of December 31, 2020. The Group has no plans to apply these standards early.

Amendments to IFRS 4: Extension of the temporary relief from the application of IFRS 9. IFRS 4 is not applicable to the Group. This amendment will therefore have no material impact on the consolidated financial statements.

Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4, and IFRS 16: Interest Rate Benchmark Reform. – Phase 2. In August 2020 the IASB passed amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4, and IFRS 16 in respect of the reform of the reference interest rates. The amendments provide for temporary relief when a reference interest rate (IBOR) is replaced by an alternative near-risk-free interest rate (RFR) and this has an impact on the financial reporting.

The amendments are valid for fiscal years commencing on or after January 1, 2021 and are to be applied retrospectively. Early application is permitted. There is no requirement for any amendment to previous periods. There are no financial instruments that are linked to the IBOR as the reference interest rate. Therefore Jenoptik does currently not anticipate any impact on the consolidated financial statements. However, the amendments may affect the future financial reporting of the Jenoptik Group with regard to financial instruments and leases.

Standards which have been published but not yet adopted by the EU as mandatory

The following standards published by the IASB have not yet been adopted by the European Union.

IFRS 17: Insurance contracts. The standard is not applicable to the Group and will therefore have no impact on the consolidated financial statements:

Amendments to IFRS 3: Reference to the framework concept. The IASB published amendments to IFRS 3 in May 2020: The amendments replace the reference to the Framework Concept for the Preparation and Presentation of Financial Statements published in 1989 with a reference to the Financial Reporting Framework Concept published in March 2018, with no significant amendment to the existing rules of the Standard.

The amendments are valid for fiscal years commencing on or after January 1, 2022 and are to be applied prospectively. Jenoptik does not expect the amendments to have any significant impact on the consolidated financial statements.

Amendments to IAS 1: Categorization of liabilities as current or non-current. In January 2020, the IASB published amendments to IAS 1 in order to clarify the rules on the classification of liabilities as current or non-current. The rights of the reporting entity as at the reporting date are therefore definitive for the classification of liabilities. A liability is to be classified as non-current if the entity is entitled to postpone the settlement of the liability by at least 12 months after the balance sheet date taking into account the circumstances or expectations on the reporting date.

The amendments are valid for fiscal years commencing on or after January 1, 2023. Based on the amendments to the standard, a different classification and a related reclassification of existing liabilities in the Jenoptik Group may be required.

Changes to IAS 1 and IAS 8: Disclosures on accounting policies. In accordance with the amendments to IAS 1 and IAS 8 published by the IASB in February 2020, only essential accounting methods are to be presented in the notes in future. To be essential, the accounting policy must be related to material transactions or other events and there must be a reason for it to be presented. In the future, company-specific versions should be in the foreground instead of standardized versions. The amendment to IAS 8 also clarifies how changes in accounting methods can be better distinguished from changes in estimates.

The changes are to be applied to fiscal years beginning on or after January 1, 2023. The scope of the necessary notes on accounting methods in the Jenoptik consolidated financial statements will change accordingly.

Amendments to IAS 16: Generation of revenues before an asset is operationally ready. The IASB published amendments to IAS 16 in May 2020. Thereafter, entities will no longer be permitted to deduct proceeds from the sale of goods produced, whilst an item of property, plant and equipment is being brought to their location and in the operational readiness intended by management, from the acquisition and production costs of this item of property, plant and equipment. Instead, these revenues, together with the production costs of of these goods must be recorded in the income statement.

The amendments are valid for fiscal years commencing on or after January 1, 2022 and are to be applied retrospectively to property, plant and equipment that has been brought to operational readiness during the reporting period of its initial application. Jenoptik does not expect the amendments to have any significant effect on the consolidated financial statements.

Amendments to IAS 37: Onerous contracts – costs for the performance of a contract. In May 2020, the IASB published amendments to IAS 37 in order to specify the costs which an entity has to take into consideration when assessing whether a contract is onerous or loss-making. The amendments based on costs which relate directly to the contract (directly related cost approach). The costs associated with the performance of contracts for the supply of goods or the provision of services, include both the directly attributable (incremental) costs of the performance of the contract as well as overheads that relate directly to activities for the performance of the contract. General administrative expenses are not directly related to the contract and are therefore not covered by the contract performance costs, unless the contract makes express provision for these to be passed on to the customer.

The amendments are valid for fiscal years commencing on or after January 1, 2022. Based on current accounting and valuation methods, Jenoptik does not expect these amendments to have any impact since the actual accounting principle corresponds to the objectivication of IAS 37.

Annual improvement process (2018–2020) – Amendment to IFRS 1: Initial application by a subsidiary. As part of its annual improvement process to the IFRS for the 2018-2020 cycle, the IASB carried out an amendment to IFRS 1. The amendment allows subsidiaries applying paragraph D16(a) of IFRS 1 to value accumulated conversion differences based on the amounts reported by the parent company, based on the date on which the parent company starts applying IFRS. This amendment is also valid for associated entities and joint ventures which apply IFRS 1.D16(a).

The amendment is valid for fiscal years commencing on or after January 1, 2022. Early application is allowed. The Jenoptik Group does not expect any impact on the consolidated financial statements.

Annual improvement process (2018–2020) – Amendments to IFRS 9: The charges for the 10 percent current value prior to the derecognition of financial liabilities. As part of its annual improvement process to the IFRS for the 2018−2020 cycle, the IASB published an amendment to IFRS 9. The amendment clarifies which charges an entity has to take into account when assessing whether the terms of a new or modified financial liability differ materially from those of the original financial liability. This only includes those fees which have been paid or received between the borrower and the lender, including those fees which have been paid or received either by the borrower or by the lender on behalf of the other respectively. An entity must apply the amendment to financial liabilities which are modified or replaced on or after the commencement of the fiscal year in which the amendment is first applicable.

The amendment is valid for fiscal years commencing on or after January 1, 2022. Early application is allowed. Jenoptik does not expect the amendments to have any significant impact on the consolidated financial statements.

Annual improvement process (2018−2020) – Amendments to IAS 41: Taxation for valuations reported at fair value. IAS 41 is not applicable to the Group. This amendment will have no material impact on the consolidated financial statements.

1.3 Estimates

The preparation of the consolidated financial statements in accordance with IFRS, as are to be applied in the EU, requires that assumptions be made for certain items, affecting their recognition in the statement of financial position or in the consolidated statement of total other comprehensive income as well as the disclosure of contingent receivables and liabilities. All assumptions and estimates are made to the best of the Group's knowledge and belief in order to provide a true and fair picture of the asset, financial and earnings situation of the Group.

The underlying assumptions and estimates are continually reviewed. This gives the author of the consolidated financial statements a certain amount of discretionary leeway. Against the background of the COVID-19 pandemic, there is increased uncertainty as to estimates and risks with regard to significant adjustments to carrying amounts. The assumptions and estimates made for the preparation of these consolidated financial statements relate mainly to:

- the assumptions and parameters for the valuation of intangible assets identified in the context of purchase price allocations (see section "Corporate acquisitions" from page 167)
- the valuation of contingent purchase price liabilities arising from mergers (see section "Corporate acquisitions" from page 167 as well as "Financial Instruments" from page 172)
- the assessment of impairment to goodwill in particular in view on the COVID-19 pandemic (see section "Intangible assets" from page 185),
- the definition of useful lives for the assessment of intangible assets and property, plant and equipment (see section "Corporate acquisitions" from page 185 as well as section "Property, plant and equipment" from page 188),
- the assessment of impairment to non-current assets in accordance with IAS 36, in particular with regard to the forecast cash flows in view of the COVID-19 pandemic (see section "Impairment of property, plant, and equipment and intangible assets" from page 171),
- the assessment of the likelihood of extension, purchase or termination options for the valuation of the leasing liabilities in accordance with IFRS 16, being exercised (see section "Leasing" from page 190),
- the method for valuing inventories, as well as for defining valuation routines and discounts, (see section "Inventories" from page 194),
- the estimate of anticipated losses as part of the valuation of trade receivables, (see section "Trade receivables" from page 194),

- the actuarial parameters for the valuation of provisions for pensions and similar obligations (see section “Provisions for pensions and similar obligations” from page 201),
- the assumptions and methods for valuing other provisions – for example, warranty obligations and actuarial parameters of personnel provisions (see section “Other provisions” from page 204),
- the realizability of future tax breaks – in particular arising from losses carried forward – in the valuation of deferred tax assets (see section “Income taxes” from page 182).
- the identification of separate payment obligations and allocation of the transaction price (see section “Revenue” from page 176).

2 Consolidation Principles

2.1 The group of entities consolidated

Along with JENOPTIK AG, all significant subsidiaries have been included fully in the consolidated financial statements. The list of shareholdings is presented in the the section “List of Shareholdings in the Jenoptik Group” from page 231.

The consolidated financial statements of JENOPTIK AG include 49 (prior year: 37) fully consolidated subsidiaries. Of which 14 (prior year: 12) have their legal seat in Germany and 35 (prior year: 25) have theirs abroad. HILLOS GmbH, which was consolidated as a joint venture up to and including 31/12/2019, has been valued as an associated company with effect from 2020, consequently, 3 entities (prior year: 1) – together with an acquired joint venture – will now be included in the consolidated financial statements using the at-equity method.

In February 2020, Jenoptik acquired the Spanish INTEROB Group, consisting of INTEROB, S.L. and INTEROB RESEARCH AND SUPPLY, S.L. Further information is included in the section “Corporate Acquisitions” from page 167.

In March 2020, Jenoptik acquired the non-controlling interests of 33.42 percent in JENOPTIK Japan Co. Ltd. from its partner Kantum Ushikata Co., Ltd. and converted the company into a wholly-owned group subsidiary.

On the closing date of September 24, 2020, Jenoptik completed the acquisition of an initial 75-percent stake in Trioptics GmbH. The Group will acquire the remaining 25 percent from the owners at already firmly agreed conditions on December 31, 2021. On the basis of existing control and present ownership in relation to the remaining 25 percent of the shares, the company was consolidated to 100 percent. Further information is included in the section “Corporate acquisitions” from page 167.

Corporate mergers also took place in the year 2020. OVITEC GmbH, Jena, Germany, which had previously been consolidated in full, was merged with OTTO Vision Technology GmbH, Jena, Germany in the 1st half-year. RADARLUX Radar Systems GmbH, Leverkusen, Germany, which had previously been consolidated in full, was merged with JENOPTIK Robot GmbH, Monheim am Rhein, Germany in the 2nd half-year. In addition, the non-consolidated AD-Beteiligungs GmbH, Monheim am Rhein, Germany, was also merged with JENOPTIK Robot GmbH, Monheim am Rhein, Germany. All assets and liabilities, including all existing contractual relationships of the merged companies, have been transferred to OTTO Vision Technology GmbH and JENOPTIK Robot GmbH respectively.

A further 5 subsidiaries, 4 of which are non-operating entities, were not consolidated as their influence on the assets, financial and earnings position – both individually and in total – is of minor significance. The total revenue of the non-consolidated entities amounts to nearly 0.0 percent of group revenue; EBIT was around minus 0.1 percent of group EBIT. The estimated impact of a consolidation all the previously non-consolidated entities on the group's statement of financial position total is nearly 0.0 percent.

The subsidiaries in the table below have material investments held by non-controlling shareholders. Additional entities have insignificant investments held by non-controlling shareholders. The corresponding minority investments can be seen in the List of Shareholdings from page 231.

Name	Company's head office	Non-controlling interests
JENOPTIK Korea Corporation Ltd.	Korea	33.34
Trioptics Optical Test Instruments (China) Ltd.	China	49.00
Trioptics Hong Kong Limited (through Trioptics China)	Hong Kong	49.00
Trioptics Japan Co., Ltd.	Japan	38.75
Trioptics Korea Co., Ltd.	Korea	40.00
TRIOPTICS TAIWAN LTD.	Taiwan	49.00

The table on page 166 summarizes the financial information of subsidiaries with significant investments held by minority shareholders, based on their individual financial statements including IFRS adjustments and impacts arising from the purchase price allocation. Impacts of the consolidation were not taken into account. The revenue, earnings and cash flow figures of the TRIOPTICS companies represent contributions from the time of initial consolidation.

2.2 Consolidation procedures

The assets and liabilities of the domestic and foreign entities included fully in the consolidated financial statements are recognized in accordance with the uniform accounting policies and valuation methods applicable for the Jenoptik Group.

At the acquisition date, the capital consolidation is based on the acquisition method. In this context, the assets and liabilities of the subsidiaries are recognized at fair values. Furthermore, identifiable intangible assets are capitalized and contingent liabilities classified as liabilities as defined in IFRS 3.23. The remaining difference between the purchase price and the acquired net assets corresponds to the goodwill. This is subject to an annual impairment test in the subsequent periods in accordance with IAS 36.

Receivables and payables as well as expenses and income between the consolidated entities are eliminated. The Group's inter-company goods and services are delivered and rendered both on the basis of market prices as well as transfer prices and are determined on the basis of the "dealing-at-arm's-length" principle. Assets from inter-company deliveries included in the inventories and property, plant, and equipment are adjusted by interim results. Consolidation procedures recognized as profit or loss are subject to the delimitation of deferred taxes, with deferred tax assets and deferred tax liabilities being netted if there is a legally enforceable right to offset current tax refund claims against current tax liabilities and only if they concern income taxes levied by the same tax authority.

Changes in shareholdings in subsidiaries which reduce or increase the investment ratio without loss of control, are shown as transactions between equity investors, outside of profit or loss.

There was no change in the consolidation methods compared with the prior year.

2.3 Foreign currency conversion

Annual financial statements of the consolidated entities prepared in foreign currencies are converted on the basis of the functional currency concept as defined in IAS 21 "The Effects of Changes in Foreign Exchange Rates" by using the modified reporting date exchange rate method. Since the subsidiaries conduct their business activities independently from the financial, economic and organizational aspects, the functional currency of the entities is generally identical to that of their respective national currency.

Assets and liabilities are consequently converted at the exchange rate on the reporting date, whereas income and expenses are converted at the annual average exchange rate which is determined on a monthly basis. The resulting difference arising from the currency conversion is offset outside of profit or loss and shown separately in equity under foreign currency reserves.

If a consolidated entity leaves the group of consolidated entities, the corresponding difference arising from the foreign currency conversion is reversed through profit or loss.

in thousand euros	JENOPTIK Korea	Trioptics China	Trioptics Hong Kong	Trioptics Japan	Trioptics Korea	Trioptics Taiwan
Revenue	**6,417**	**4,292**	**5,567**	**2,241**	**1,226**	**4,434**
	(6,044)	n. a.	n. a.	n. a.	n. a.	n. a.
Earnings after tax	705	– 113	559	43	317	780
	(–171)	n. a.	n. a.	n. a.	n. a.	n. a.
Earnings after tax from non-controlling interests	235	– 56	274	17	127	382
	(–57)	n. a.	n. a.	n. a.	n. a.	n. a.
Other comprehensive income	– 6	12	– 133	– 28	80	11
	(–16)	n. a.	n. a.	n. a.	n. a.	n. a.
Total comprehensive income	698	– 101	426	15	397	790
	(–187)	n. a.	n. a.	n. a.	n. a.	n. a.
Total comprehensive income from non-controlling interests	233	– 50	209	6	159	387
	(–62)	n. a.	n. a.	n. a.	n. a.	n. a.
Non-current assets	363	1,879	3,343	3,863	1,496	2,417
	(178)	n. a.	n. a.	n. a.	n. a.	n. a.
Current assets	3,030	8,856	10,631	3,386	3,253	4,304
	(2,522)	n. a.	n. a.	n. a.	n. a.	n. a.
Non-current liabilities	38	989	553	936	274	726
	(47)	n. a.	n. a.	n. a.	n. a.	n. a.
Current liabilities	1,252	5,247	6,906	1,523	370	1,897
	(1,219)	n. a.	n. a.	n. a.	n. a.	n. a.
Net assets	2,103	4,498	6,515	4,790	4,105	4,099
	(1,435)	n. a.	n. a.	n. a.	n. a.	n. a.
Net assets from non-controlling interests	701	2,204	3,193	1,856	1,642	2,009
	(479)	n. a.	n. a.	n. a.	n. a.	n. a.
Cash flows from operating activities	1,036	920	1,130	– 133	1,241	200
	(179)	n. a.	n. a.	n. a.	n. a.	n. a.
Cash flows from investing activities	– 9	1	0	– 58	5	309
	(–4)	n. a.	n. a.	n. a.	n. a.	n. a.
Cash flows from financing activities	– 32	– 2,129	0	– 44	– 15	– 68
	(–10)	n. a.	n. a.	n. a.	n. a.	n. a.
Change in cash and cash equivalents	995	– 1,207	1,130	– 235	1,231	442
	(165)	n. a.	n. a.	n. a.	n. a.	n. a.

The figures in brackets relate to the prior year.

Receivables and payables in the individual financial statements of consolidated entities prepared in a local currency which is not the functional currency of the subsidiary, are converted at the exchange rate on the balance sheet date in accordance with IAS 21. Differences arising from the foreign currency conversion are recognized through profit and loss under other operating income or other operating expenses and, if these are derived from financial transactions, are recognized under financial income or financial expenses (see details on the Income Statement from page 178) This excludes currency conversion differences arising from loans and advances which constitute a part of the net investment in a foreign operation. These differences from foreign currency conversions are recorded in other comprehensive income outside or profit or loss until the sale of the net investment; It is only at the time of their disposal that the cumulative amount is reclassified into the income statement.

The exchange rates used for the conversion are shown in the table below:

		Annual average exchange rate		Exchange rate on the reporting date	
	1 EUR =	1/1 to 31/12/2020	1/1 to 31/12/2019	31/12/2020	31/12/22019
Australia	AUD	1.6554	1.6106	1.5896	1.5995
Canada	CAD	1.5294	1.4857	1.5633	1.4598
Switzerland	CHF	1.0703	1.1127	1.0802	1.0854
China	CNY	7.8708	7.7339	8.0225	7.8205
Great Britain	GBP	0.8892	0.8773	0.8990	0.8508
Hongkong	HKD	9.2193*	n. a.	9.5142	n. a.
India	INR	84.5795	78.8501	89.6605	80.1870
Japan	JPY	121.7754	122.0564	126.4900	121.9400
Korea	KRW	1,345.1058	1,304.8987	1,336.0000	1,296.2800
Malaysia	MYR	4.7935	4.6372	4.9340	4.5953
Singapore	SGD	1.5736	1.5272	1.6218	1.5111
Taiwan	TWD	33.8093*	n. a.	34.2880	n. a.
US	USD	1.1413	1.1196	1.2271	1.1234

* Average exchange rate since initial consolidation of TRIOPTICS Group in September 2020

2.4 Acquisitions and sales of entities

Acquisition of INTEROB

With the signing of the contract on January 25, 2020 and the closing on February 4, 2020, Jenoptik acquired a 100 percent stake respectively in INTEROB, S.L., Valladolid, Spain and INTEROB RESEARCH AND SUPPLY, S.L., Valladolid, Spain (jointly referred to as INTEROB) via JENOPTIK Automatisierungstechnik GmbH. INTEROB specializes in the design, construction and integration of customized automation solutions as well as robotics applications. With the acquisition, the Jenoptik Group is tapping into additional regional and technological growth potential in the automotive industry and is continuing the development, begun with the acquisition of Prodomax and Five Lakes, towards becoming a full-service provider for automated production solutions.

The purchase price in the sum of 34,726 thousand euros comprises a fixed cash component (29,437 thousand euros) as well as a conditional component (nominal 7,113 thousand euros, current value 5,289 thousand euros) which is based on the attainment of agreed earnings figures in the years 2020 to 2022 and recognized at fair value on the date of the initial consolidation.

The conditional component of the purchase price includes a standard earn-out as well as an earn-out premium in the event that the targets are exceeded by the acquired companies. The actual EBITDA achieved and the deviation from the projected EBITDA in the respective fiscal years are the parameters by which the amounts of both components of the earn-out are measured. In this context, the level of the earn-out is not limited

The anticipated earn-out payments were discounted at an interest rate dependent upon maturity and risk.

In return, Jenoptik acquired the following net assets as at the date of the initial consolidation:

in thousand euros	Total
Non-current assets	**30,779**
Intangible Assets	27,805
Property, plant, and equipment	2,730
Other non-current assets	244
Current assets	**20,782**
Trade receivables	7,270
Contract assets	12,258
Other current assets	1,047
Cash and cash equivalents	207
Non-current liabilities	**5,000**
Financial liabilities	2,757
Deferred tax liabilities	2,178
Other non-current liabilities	65
Current liabilities	**11,835**
Financial liabilities	4,184
Liabilities from trade receivables	6,557
Other current liabilities	1,094

The acquired assets include receivables with a gross value of 7,396 thousand euros. The general default risk was taken into account through an impairment loss in the amount of the anticipated loss of 126 thousand euros. The acquired assets also included cash and cash equivalents amounting to 207 thousand euros.

In connection with the acquisition of shares in the INTEROB, in addition to the revaluation of property, plant and equipment, a customer base plus the order backlog were identified in particular as intangible assets as part of the purchase price allocation. The intangible assets are amortized over periods of between three and seven years. Goodwill in the sum of 19,841 thousand euros was also recorded for the acquisition of the skilled personnel as well as for synergy effects arising from additional applications in the field of automation solutions and robotics applications, the enlargement of the customer base and opening up of new markets, which is included in the intangible assets . The INTEROB goodwill is allocated to the group of cash-generating units "Light & Production" and is not tax-deductible.

Contingent liabilities were not identified during the corporate acquisition.

Costs incurred up to December 31, 2020 for the acquisition of INTEROB totaled 303 thousand euros. The costs in the sum of 139 thousand euros incurred in the year 2020 were shown under other operating expenses.

Acquisition of TRIOPTICS

On the closing date of September 24, 2020, Jenoptik successfully completed the acquisition of the initial 75-percent stake in the optics specialist Trioptics GmbH, Wedel, Germany. All conditions for the transaction have therefore been met and all the necessary regulatory approvals for the acquisition are in place. The Group will acquire the remaining 25 percent of Trioptics GmbH from the owners on December 31, 2021 at already agreed terms. On the basis of the existing control and present ownership in relation to the remaining 25 percent of the shares, the company was consolidated to 100 percent.

The acquisition of Trioptics GmbH also gave Jenoptik the controlling interest in its following subsidiaries:

- JENOPTIK Berlin GmbH, Berlin, Germany
- TRIOPTICS Singapore PTE. LTD., Singapore
- Trioptics Optical Test Instruments (China) Ltd., China
- Trioptics Hong Kong Limited, Hong Kong
- Trioptics Japan Co., Ltd., Shizuoka, Japan
- Trioptics Korea Co., Ltd., Suwon, Korea
- TRIOPTICS TAIWAN LTD., Taoyuan, Taiwan
- Trioptics, Inc., Rancho Cucamonga, California, USA

Jenoptik also acquired a 50 percent stake in Trioptics France S.A.R.L., Villeurbane, France, which will be included in the consolidated financial statements as an Joint Venture with effect from the closing date.

The acquisition of Trioptics GmbH allows Jenoptik to further sharpen its focus on high-growth cutting-edge industries. TRIOPTICS' complementary portfolio allows for additional offerings of measuring systems and manufacturing facilities for sensor solutions and optical micro-components. TRIOPTICS employs more than 400 personnel worldwide and generates more than half its revenue in Asia.

The information below is based on provisional figures. The provisional aspect relates to the determination of the net assets acquired from the TRIOPTICS entities. The first-time consolidation is expected to be finalized in the first half-year 2021.

The purchase price in the sum of 308,151 thousand euros comprises a cash component for the acquisition of the 75 percent stake (220,701 thousand euros), a downstream purchase price for the remaining 25 percent of the shares (nominal 78,148 thousand euros, present value 76,939 thousand euros) as well as several conditional purchase price components (nominal 12,517 thousand euros, present value 10,511 thousand euros). The remaining purchase price liabilities were discounted at an interest rate dependent upon maturity and risk.

The conditional components of the purchase price, accounted for at fair value, include earn-out components dependent upon on the EBITDA for 2020 and 2021, as well as a revenue-dependent bonus/malus scheme based on the year 2021. The conditional components range between minus 15 million euros and plus 45 million euros.

In return, the following net assets were acquired as at the date of the initial consolidation:

in thousand euros	Total
Non-current assets	**283,904**
Intangible Assets	254,062
Property, plant, and equipment	24,164
Other non-current assets	5,678
Current assets	**86,555**
Inventories	39,070
Trade receivables	10,277
Other current assets	6,668
Cash and cash equivalents	30,540
Non-current liabilities	**28,809**
Financial debt	12,376
Deferred tax liabilities	13,431
Other non-current liabilities	3,002
Current liabilities	**23,281**
Other current provisions	3,124
Financial debt	2,572
Liabilities from trade receivables	2,928
Contract liabilities	10,610
Other current liabilities	4,048

The acquired assets include receivables with a gross value of 12,182 thousand euros. The general default risk was taken into account through an impairment loss in the amount of the anticipated loss of 1,905 thousand euros. The acquired assets also include cash and cash equivalents amounting to 30,540 thousand euros.

In connection with the acquisition of shares in Trioptics GmbH, in addition to the revaluation of inventories, in particular a customer base, technologies, a brand and an order backlog were identified as intangible assets as part of the purchase price allocation. The intangible assets are amortized over periods of between four and a half months and seven years. Goodwill in the sum of 211,304 thousand euros was also recorded for the acquisition of the skilled personnel as well as for synergy effects arising from areas of application for the optical components, the enlarged customer base and opening up of markets, which is included in the intangible assets. The group goodwill is allocated to the group of cash-generating units "Light & Optics" and is not tax-deductible.

Contingent liabilities were not identified during the corporate acquisition.

Minority shareholders hold investments in some Trioptics GmbH subsidiaries. The non-controlling interests of the entities were taken into account respectively with the share of the revalued net assets without recognition of goodwill. The total existing shareholdings of non-controlling shareholders at the date of the initial consolidation were valued at 10,218 thousand euros.

The costs incurred up to December 31, 2020 for the acquisition of TRIOPTICS totaled 2,686 thousand euros. The costs in the sum of 2,378 thousand euros incurred in the year 2020 were shown under other operating expenses.

With the inclusion of INTEROB, the consolidated financial statements contain revenue of 19,440 thousand euros and earnings after tax of 283 thousand euros. With the inclusion of TRIOPTICS the consolidated financial statements contains revenue of 27,806 thousand euros and earnings after tax of minus 34 thousand euros. Earnings after tax include the expenses from scheduled amortization of intangible assets identified as part of the purchase price allocation.

On the premise that all corporate acquisitions had already taken place as of January 1, 2020, the Jenoptik Group would show revenue of 815,837 thousand euros and consolidated earnings after tax of 42,131 thousand euros. In order to determine this information, it was assumed that the fair values and useful lives of the intangible assets identified in the context of the allocation of the purchase price as of January 1, 2020 are identical to those as at the initial consolidation date. These pro-forma figures were produced solely for comparison purposes. They do not provide a reliable indication either of the operating results that would actually have been achieved if the acquisition had been made at the beginning of the period or of future results.

There were no sales of companies in the 2020 fiscal year.

2.5 Notes on other entities

Jenoptik holds shares in 6 (prior year: 6) other entities with a maximum 50 percent investment quota respectively. These investments are of minor importance respectively and overall for the asset, financial and earnings situation of Jenoptik. Therefore, based on the principle of cost effectiveness and materiality, the equity valuation was not applied to these investments. The general disclosures on the investments are contained in the list of shareholdings of the Jenoptik Group from page 231.

3 Accounting Policies and Valuation Methods

3.1 Accounting and valuation effects related to COVID-19

With view on the influence of Covid-19 pandemic on the operational activity of Jenoptik companies, there is a continuous analysis of possible balance sheet effects and the impact on the net assets, financial position and results of operations of the Group.

A detailed explanation of the effects on the operational business is included in the management report.

Significant accounting and valuation effects arise in particular from public support benefits the Group has used around the economic consequences of COVID-19 and macroeconomic developments. These concern in particular short-time working allowance as well as abroad partly granted other government support services due to sales declines. If the country-specific prerequisites for the respective support measures are fulfilled as well as certainly, these claims are recognized in the balance sheet in other non-financial assets. In the 2020 financial year, the support benefits of 12,514 thousand euros were recognized, which led to lower personnel costs and thus a corresponding improvement of the earnings situation. At the balance sheet date, receivables from support services amounted to 2,462 thousand euros.

Further explanations on accounting and valuation effects are contained in the respective information on the income statement and in the balance sheet.

3.2 Goodwill

Goodwill as stated in IFRS 3 corresponds to the positive difference between the consideration for a corporate merger and the newly acquired, revalued assets and liabilities, including certain contingent liabilities remaining after a purchase price has been allocated. Within the framework of this purchase price allocation, the identifiable assets and liabilities are not recognized at their previous carrying amounts but at their fair value. During an acquisition of a controlling interest, non-controlling interests are valued according to their proportion of the identifiable net assets.

Goodwill is recognized as an asset and subject to an impairment test at least once a year on a defined date or whenever there is an indication that the cash-generating unit could be impaired. An impairment loss is recognized immediately through profit or loss and not reversed in later reporting periods.

3.3 Intangible assets

Intangible assets acquired in return for payment, primarily patents, trademarks, software and customer relationships, are capitalized at their acquisition costs. Intangible assets with finite useful lives are subject to scheduled amortization on a straight-line basis over their economic useful lives. This is generally a period of between three and ten years. The Group reviews whether its intangible assets with finite useful lives have suffered an impairment loss (see section "Impairment losses on property, plant, and equipment and intangible assets").

Internally generated intangible assets are capitalized if the recognition criteria specified in IAS 38 "Intangible Assets" have been fulfilled.

Internally generated intangible assets are subject to schedule amortization on a straight-line basis over their anticipated useful lives. This is generally a period of between five and ten years.

Development costs are capitalized if a newly developed product or process can be clearly identified, is technically realizable and if there plans for production, own use, or marketing. Furthermore, it is assumed that, if capitalized, there is sufficient probability that the development costs will be covered by future financial cash inflows and can be reliably determined. Finally, there must be adequate resources available to conclude the development and enable the asset to be used or sold.

Capitalized development costs are subject to scheduled amortization over the anticipated sales period of the products – in principle however no longer than five years. In this context, the acquisition and production costs cover all the costs directly attributable to the development process as well as appropriate portions of the overheads relating to the development. If the requirements for capitalization have not been fulfilled, the expenditures are recognized through profit or loss in the year they occurred.

Amortization on intangible assets is apportioned on the basis of the causer principle to the corresponding function areas in the statement of income.

Research costs are recorded as current expenses in research and development expenses in accordance with IAS 38.

3.4 Property, plant, and equipment

Property, plant, and equipment are valued at acquisition and production cost, less scheduled, straight-line depreciation. The depreciation method reflects the anticipated pattern of consumption of the future economic benefits. If the acquisition cost of individual components of an asset is material (particularly in the case of buildings), the depreciation is applied separately for each part of the property, plant and equipment. Where necessary, impairment losses reduce the amortized acquisition and production costs. In principle, government grants for non-current assets are deducted from the acquisition and production costs in accordance with IAS 20 “Accounting for and Presentation of Government Grants” (see section entitled “Government Grants”). Production costs are calculated on the basis of directly attributable specific costs as well as proportionate, directly attributable cost of materials and production overheads including depreciation. In accordance with IAS 23 “Borrowing Costs”, borrowing costs directly attributable to acquisition or production costs of a qualifying asset are capitalized as a portion of the acquisition or production costs.

Costs incurred for repairing property, plant, and equipment are generally treated as an expense. Subsequent acquisition costs for any components of property, plant, and equipment replaced at regular intervals, can be capitalized insofar as future economic benefits can be reasonably expected and the respective costs can be reliably measured.

Unchanged to the previous year, scheduled depreciation is essentially based on the following useful lives:

	Useful life
Buildings	12 – 80 years
Machinery and technical equipment	5 – 15 years
Other equipment, operating and office equipment	3 – 15 years

If any items of property, plant, and equipment are decommissioned, sold or relinquished, the gain or loss arising from the difference between the proceeds of the sale and the residual carrying amount are recorded under other operating income or other operating expenses.

3.5 Impairment of property, plant, and equipment and intangible assets

Property, plant, and equipment and intangible assets with finite useful lives are assessed at each reporting date to see if there are any indications of possible impairment losses for the corresponding assets in accordance with IAS 36 “Impairment of Assets”. If any such indications for specific assets or a cash-generating unit are identified, an impairment test will be performed on these assets.

The differentiation between the cash-generating units for goodwill purposes is carried out on the basis of the divisions, as well as for property, plant and equipment and other intangible assets at the business unit level.

As part of the impairment test, the recoverable amount of an asset or cash-generating unit is first determined and then compared with the corresponding carrying amount in order to identify if there is any need for an impairment to be applied.

The recoverable amount is the higher of an asset’s fair value less costs to sell and value in use of an asset or a cash-generating unit.

The amount designated as at fair value less costs to sell is that which could be achieved through the sale of an asset in a transaction at arm’s length between knowledgeable and willing parties.

Value in use is determined on the basis of discounted anticipated future cash inflows. This is based on a fair market interest rate before tax that reflects the risks of using the asset that are not yet considered in the estimated future cash inflows.

If the recoverable amount of an asset is estimated to be less than the carrying amount, it is depreciated to the recoverable amount. The impairment loss is recognized in other operating expenses, affecting profit or loss.

If an impairment loss is reversed in a subsequent accounting period, the carrying amount of the asset must then be adjusted to the recoverable amount determined. The maximum limit for the reversal of an impairment loss is determined by the amount of the amortized acquisition or production costs that would have been recorded if an impairment loss had not been recognized in prior periods. The impairment loss reversal is immediately recoded in other operating income, affecting profit or loss.

3.6 Government grants

IAS 20 distinguishes between grants related to acquiring non-current assets and grants related to income.

IAS 20 fundamentally provides for grants to be accounted for through profit or loss in the same period as the relevant expenses. In the reporting year this essentially relates to public subsidies to mitigate the economic consequences of COVID-19 as well as macroeconomic developments.

In the Jenoptik Group grants for non-current assets are deducted from the acquisition and production costs. Correspondingly, the amount to be written off is determined on the basis of the reduced acquisition and production costs.

3.7 Leases

On commencement of contract, the Group assesses whether a contract constitutes or contains a lease. This is the case if the contract provides the entitlement for the use of an identified asset in return for payment of a remuneration to be monitored for a specific period. As a lessee, Jenoptik fundamentally accounts for the rights of use of the lease items and the corresponding lease liabilities in accordance with IFRS 16.

Rights of use are valued at acquisition costs less all accumulated depreciation. The acquisition costs include the recognized lease liabilities, the initial direct costs incurred as well as the lease payments made at or before provision. Rights of use are subject to planned, straight-line depreciation over the shorter of the two periods of duration and anticipated useful life and for real estate class assets amount to one to 25 years and for machinery, technical equipment as well as other equipment, operating and office equipment class assets, one to five years. The rights of use are recognized in the statement of financial position in the item in which the underlying asset would be shown if it were the property of the Group.

The lease liabilities are recognized at the current value and include fixed payments, variable lease payments linked to an index or interest rate, payments arising from a contractually guaranteed residual value, payments from the exercising of renewal or purchase options deemed to be sufficiently secure and contractual penalties for the exercising of sufficiently secure termination options.

When calculating the current value of the lease payment, the Group applies its incremental borrowing rate on the date of provision if the interest rate underlying the lease cannot be readily determined. The Group's lease liabilities are shown in the items "Non-current financial debt" and "Current financial debt".

The Group makes use of the practical recognition exemption offered by IFRS 16 and recognizes the lease payments for short-term leases (excluding property) as well as small-value leased assets as expenses on a straight-line basis over the term of the lease.

3.8 Investment property

Investment property comprises plots of land and buildings held for gaining rental income or for the purpose of their value increasing. These properties are not held for the Group's own production, for supplying goods or rendering services, for administration purposes or for any sales in the ordinary course of business activities.

In accordance with the right of choice under IAS 40 "Investment property", such assets are to be accounted for at amortized acquisition or construction costs. The fair values to be stated are determined using the discounted cash flow method.

The straight-line depreciation method is based on a useful life of between 20 to 80 years.

In accordance with IAS 36, depreciation resulting from impairment losses on investment property is made if the value in use or fair value less costs to sell of the respective asset is less than the carrying amount. If the reasons for an impairment loss resulting from depreciation from a prior period cease to exist, corresponding write ups are recorded.

3.9 Financial instruments

Financial instruments are contracts giving rise to a financial asset of one entity and to a financial liability or an equity instrument of another entity. As defined in IAS 32, such instruments include on the one side primary financial instruments such as trade receivables and trade payables or financial receivables and financial payables. On the other side, they also include derivative financial instruments which are used for hedging risks arising from fluctuations in interest and foreign currency exchange rates.

Financial assets and financial liabilities are recognized in the consolidated statement of financial position from the date on which the Group becomes a contractual party in the a financial instrument agreement.

Depending upon the Group's business model for managing assets and the question as to whether the contractual cash flows of the financial instruments exclusively constitute repayments and interest payments on the outstanding nominal amount, the existing financial instruments are categorized in accordance with IFRS 9 either as "at amortized acquisition costs", "at fair value outside profit or loss in other comprehensive income", or "at fair value recorded through profit or loss" and valued accordingly.

The amortized acquisition costs of a financial asset or a financial liability is defined as the amount at which the financial asset or financial liability was valued at initial recognition:

- minus any repayments
- minus any impairment losses or potential inability to be recovered, as well as
- plus/minus the cumulative distribution of any difference between the original amount and the amount repayable on maturity (e.g. discount and transaction costs). Under the effective interest method, this difference is spread over the full contractual term of the financial asset or financial liability.

The amortized acquisition cost for current receivables and payables generally reflect the nominal amount or the repayment value.

Fair value generally corresponds to the market or stock market value. If there is no active market, the fair value is checked by using financial mathematical methods such as by discounting estimated future cash flows at market interest rates or by applying standard option price models and by confirmations issued by the banks that sold the instruments.

a) Primary financial instruments

Shares in entities

Initial recognition in the statement of financial position is based on the fair value.

In the Jenoptik Group, all long-term shareholdings in companies are classified as "outside profit or loss at fair value in other comprehensive income" based on the exercising of the voting right granted in accordance with IFRS 9 and valued at fair value. In the absence of any identifiable market prices, the fair values of these financial instruments are determined on the basis of discounted cash flows. Changes in value are recorded in other comprehensive income outside of profit or loss

Shares in entities wich are included at-equity

Shares in entities over which Jenoptik exerts key influence, are valued using the at-equity method under IAS 28. For this purpose, the original investment carrying amount is updated with the shares in the company's Consolidated statement of changes in equity to which the shareholders are entitled. Shares in the profit or loss are recognized under profit or loss, whilst shares in other comprehensive income are recorded outside profit or loss.

Loans

Loans involve credit granted by the Jenoptik Group and are to be valued at the amortized acquisition costs in accordance with IFRS 9.

Non-current, non-interest-bearing loans and low interest-bearing loans are accounted for at current value. If any objective, substantial evidence of impairment can be identified, then unscheduled depreciation is applied.

Trade receivables

Trade receivables are non-interest bearing due to their short term nature and are recognized at nominal value less impairment losses on the basis of anticipated bad debts (amortized acquisition costs). The anticipated bad debts are determined in accordance with IFRS 9 via the simplified method. In this context, consideration is given to both the individual default risk as well as an anticipated default risk derived from past events for a group of receivables with comparable default risks (portfolio-based impairment) through the recognition of a provision for risk in the amount of the bad debts anticipated over the entire period, using an impairment loss account. When the loss of a trade receivable is finally realized, the receivable is written off by using any impairment previously recognized. Similarly, the receivable is derecognized when the contractual rights relating to the cash flows arising from the receivable expire, or the rights to receive the cash flows are transferred in a transaction in which all the risks and opportunities associated with the ownership of the receivable are transferred. As part of the factoring, the receivables are held for collection of in some cases for resale.

Other financial assets

Other financial assets are recognized at amortized acquisition costs. All identifiable default risks are accounted for by a corresponding impairment.

Non-current, non-interest-bearing or low interest-bearing receivables are discounted.

Current financial investments

Current cash deposits and current financial receivables are classified “at amortized acquisition costs” in accordance with IFRS 9, securities are classified at fair value through profit or loss and valued accordingly.

Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, checks and bank credit balances available on demand with an original maturity of up to three months. These are recognized at the nominal amount less a provision for the risk of anticipated loan defaults.

Financial liabilities and equity instruments

In principle, financial liabilities are valued at amortized acquisition costs by applying the effective interest method. This does not apply to financial liabilities which are accounted for at fair value through profit or loss.

An equity instrument is any contractual agreement containing a residual interest in the assets of the Group after all liabilities have been deducted. Shares which have been issued are classified as equity, whereby the costs (less related income tax benefits) directly attributable to the issue of treasury shares, have been deducted from equity.

Liabilities to banks

Interest-bearing bank loans and overdraft lines of credit are accounted for at the amounts received less any directly attributable disbursement expenses. Financing costs, including premiums due to be paid on repayment or redemption, are accounted for on an accrual basis by applying the effective interest method, and increase the carrying amount of the instrument insofar as they have not been settled at the date of its inception.

b) Derivative financial instruments

The Jenoptik Group uses derivative financial instruments for hedging risks arising from fluctuations in interest and foreign currency exchange rates. They serve to reduce earnings volatility resulting from interest and foreign currency exchange rate risks. Fair value is determined by taking into account the market conditions – interest rates, foreign currency exchange rates – at the balance sheet date and using the valuation methods shown below.

Derivative financial instruments are not used for speculation purposes. The use of derivative financial instruments is subject to a group guideline which governs the use of derivative financial instruments. In order to hedge risks from fluctuations in interest and foreign currency exchange rates, the Group uses cash flow hedges.

Changes in the fair value of derivative financial instruments which serve to hedge cash flow risks, are documented. If the hedge accounting has been classified as effective, the changes in fair value are recognized outside of profit or loss in other comprehensive income. Reclassifications from equity to profit or loss are carried out in the period during which the hedged underlying transaction affects profit or loss. Fluctuations in value arising from financial instruments which are classified as not effective are recorded directly in profit or loss.

3.10 Inventories

Inventories are recognized at the lower of acquisition or production costs and their net realizable value.

The net realizable value is the estimated proceeds from sale less the estimated production costs and any further costs incurred up to sale. For determining the net realizable value, devaluation routines are applied in addition to case-by-case assessment. The range, market price (based on existing orders) as well as marketability serves as indicators of lower net sales proceeds. In this context, the specific discount rates are regularly reviewed and, if necessary, adapted.

Acquisition costs also include any other costs incurred to restore the inventories to their current condition. These take into account any reductions such as rebates, bonuses or trade discounts.

Production costs include the full costs relating to production that have been determined on the basis of normal production capacity utilization. In addition to direct costs, these also include the appropriate portion of the necessary material and production overheads as well as production related depreciation which can be directly attributable to the production process. In this context, particular account is taken of the costs that are allocated to specific production cost centers. Administrative expenses are also taken into account insofar as they can be allocated to production. If carrying amounts at the reporting date have decreased owing to lower prices on the sales market, then these are recognized. In principle, the valuation of similar inventory assets is based on the average cost method. If the reasons that led to a write-down of inventories cease to exist and the net realizable value has consequently increased, the reversals of write-downs are recognized as a reduction in material expenses in the corresponding periods in which they occur.

3.11 Borrowing costs

Borrowing costs that can be directly attributed to the construction or production of a qualifying asset are capitalized as a portion of the acquisition or production costs of this asset.

3.12 Contract assets and contract liabilities

A contract asset is the not-yet-unconditional claim to the receipt of a consideration in return for goods or services transferred to a customer. If the Group meets its contractual obligations by transferring goods or services to a customer before the customer pays the consideration or before the payment is due, a contract asset will be recognized for the conditional claim to consideration in return. This gives rise to contract assets as the difference between the realized revenue from the respective order, less payments received and customer billings. Receivables from customers arising from invoices issued, are shown under trade receivables.

If the requested payments received and due, as well as the customer billings issued, exceed the realized revenue, a contract liability will be shown. A contract liability therefore constitutes the obligation of the group to transfer goods or services to a customer for which it, the group, has received a consideration from the customer or for which a requested payment is due. Contract liabilities are recognized as proceeds as soon as the Group fulfills its contractual obligations.

The contractual liabilities additionally include obligations arising from agreed contractual penalties which must be taken into account in order to reduce revenue.

Contract assets reported in accordance with IFRS 15 are valued at the nominal value, taking into account impairment losses in the default amounts anticipated over the entire useful life.

3.13 Deferred taxes

The accounting for and valuation of deferred taxes is performed in accordance with IAS 12 "Income taxes". Deferred tax assets and deferred tax liabilities are shown as separate items in the statement of financial position in order to take into account future tax effects resulting from timing differences between the statement of financial position valuations of assets and liabilities and tax losses carried forward.

Deferred tax assets and deferred tax liabilities are computed in the amount of the anticipated tax burden or tax relief in subsequent fiscal years on the basis of the tax rate applicable on the date of realization. The effects of changes in tax rates on deferred taxes are recognized in the reporting period during which the legislative procedure on which the change in the tax rate is based has been completed.

Deferred tax assets on differences in the statement of financial position and on tax losses carried forward are only recognized if it is probable that these tax advantages can be realized in the foreseeable future.

Deferred tax assets and deferred tax liabilities are offset against each other insofar as taxes are levied by the same authority and relate to the same tax period. In accordance with the regulations of IAS 12, there is no discounting of deferred tax assets and liabilities.

3.14 Provisions for pensions and similar obligations

Pensions and similar obligations comprise the pension obligations of the Jenoptik Group arising from both defined benefit as well as defined contribution retirement schemes.

In accordance with IAS 19, pension obligations for defined benefit schemes are determined by applying the so-called projected unit credit method. An actuarial expert opinion for this procedure is obtained at least once a year.

In Germany, the mortality rates are determined in accordance with the Klaus Heubeck guideline mortality tables 2018 G. The BVG/LPP 2015 mortality tables apply in Switzerland and in France it's the current tables of the INSEE. Actuarial gains and losses are recognized outside profit or loss in other comprehensive income. Past-service expenses are shown under personnel expenses and the interest portion of the addition to provisions is recorded in the financial result.

Assets that meet the requirements for plan assets under IAS 19.8 are recognized at their current value and offset against the pension obligations.

For defined contribution schemes, the contributions payable are recognized immediately as an expense.

3.15 Tax provisions

Tax provisions contain obligations arising from current income taxes. Deferred taxes are disclosed in separate items in the statement of financial position.

Tax provisions for corporation tax and business tax or similar income tax expenses are determined on the basis of the taxable income of the consolidated entities, less any prepayments made.

3.16 Other provisions

In accordance with IAS 37 "Provisions, Contingent Liabilities and Contingent Assets", provisions are set aside insofar as there is any current liability to a third party resulting from a past event that is likely to lead to an outflow of resources in the future and the amount of which can be reliably estimated. Other provisions are only set aside for legal or de facto obligations to third parties that are more likely than not at the reporting date.

Provisions are recognized at their settlement value discounted at the reporting date, providing the interest effect is significant. The settlement value also includes the anticipated price or cost increases. The discounting is based on non-negative interest rates before taxes that reflect current market expectations with regard to the interest effect and which are dependent upon the corresponding term of the obligation. The interest portion arising from the compounded of the provision, as well as any effects of changes in interest rates, are recognized in the financial result.

Provisions are valued on the basis of empirical values, taking the circumstances at the balance sheet date into consideration. Provisions for guarantees and warranties are set aside for individual cases and on a lump-sum basis. The amount of the provision is based on the historical development of guarantees and warranties as well as on a consideration of all future potential guarantee or warranty claims, weighted by the probability of their occurrence.
Claims to the right of recourse are only taken into account if these claims are virtually certain.

3.17 Share-based payments

The members of the Executive Board and some senior management personnel of JENOPTIK AG receive multi-year variable remuneration in the form of long term incentives (LTI) or performance shares. Both types of these virtual shares are accounted for in accordance with IFRS 2 as share-based remuneration with settlement in cash. At the balance sheet date and depending upon the contractual provisions, a provision is set aside in the amount either of the pro rata temporis or full fair value of the payment obligation. Changes in fair value are recognized through profit or loss until they are realized.

3.18 Contingent liabilities

Contingent liabilities are potential obligations that are based on past events and whose existence is only confirmed by the occurrence of one or more uncertain future events, which are, however, outside the control of the Jenoptik Group. Moreover, current obligations can constitute contingent liabilities if there is insufficient certainty regarding the likelihood of outflows of resources to set aside a provision and/or the amount of the obligation cannot be reliably estimated. The valuations of the contingent liabilities correspond to the existing scope of liability at the balance sheet date. In principle, they are not accounted for in the statement of financial position but are explained in the Notes.

3.19 Revenue

Proceeds from contracts with customers are recognized in accordance with IFRS 15 if the control of the goods or services is transferred to the customer. These are recognized in the amount of the consideration in return that the Group is expected to receive in exchange for these goods or services. For sales transactions with multiple performance obligations, the revenues are determined based on stand-alone selling prices.

Proceeds from the sale of goods are generally recorded at the time when control of the asset passes to the customer. The determination of this timing takes into account, among other things, the transfer of the legal ownership, the physical transfer of possession and any potentially agreed acceptance of the products by the customer.

In certain cases, the goods produced by Jenoptik as part of a specific order process represent assets with no alternative benefit to the Group. Subject to a claim for payment for the service rendered to date, the revenue is realized over a specific period, whereby the degree of completion is determined according to the input-oriented cost-to-cost method. This applies both to the production of individual assets as well as to development projects with subsequent volume production (customer-specific volume production).

Proceeds from the rendering of services which represent separate performance obligations within the meaning of IFRS 15 and from which the customer can benefit at the same time as the service is rendered, are recognized over time according to the degree of completion as at the balance sheet date, whereby the degree of completion is generally determined according to the input-oriented cost-to-cost method.

The Group is usually subject to statutory warranties for the repair of defects that were present at the time of sale. These so-called assurance-type warranties are recognized under provisions for warranties in accordance with IAS 37. If agreed guarantees and warranty claims significantly exceed the usual framework (so-called service-type warranties), these are assessed and accounted for as a separate service obligation. In this case, the revenue for the applicable portion is realized on a straight-line basis over the agreed period of the service-type warranty.

Rental income received from property is recognized on a straight-line basis over the term of the corresponding rental contracts and disclosed in revenue.

If a contract contains a number of delimitable components (multi-component contracts), these will be implemented separately in accordance with the above principles.

In determining the consideration in return that Jenoptik receives for fulfilling a customer order, agreed variable components are estimated at the beginning of the contract and then included in the transaction price when it is highly likely that the elimination of the uncertainty associated with the variable components of the consideration in return will not lead to a cancellation of revenue which has already been recognized. At Jenoptik, this applies to both agreed discounts and bonuses as well as to possible contractual penalties.

Based on the fact that advances received from the customer are generally short-term, the Group takes advantage of the simplification relief offered by IFRS 15 and refrains from taking a financing component into account when determining the consideration in return.

3.20 Cost of sales

Cost of sales show the costs incurred to generate revenue. This item also includes the costs for setting aside provisions for warranties and guarantees. The scheduled depreciation/amortization on intangible assets and property, plant, and equipment is shown in accordance with the principle of cause and included in cost of sales insofar as they are attributed to the production process.

3.21 Research and development expenses

Research and development expenses include non-capitalizable research and development expenses, with the exception of research and development expenses for customer orders which are disclosed under cost of sales.

3.22 Selling expenses and general administrative expenses

Along with personnel expenses and cost of materials, selling expenses include the costs incurred for distribution, advertising, sales promotion, market research, and customer service. In addition, selling expenses also include the costs for contract initiation which are immediately recognized as an expense as a result of the application of the practical remedy under IFRS 15, since the period of depreciation for the asset that the Group would otherwise have recognized is not more than one year. Amortization of customer relationships and order backlogs acquired as part of corporate mergers are also recorded in the selling expenses.

General administrative expenses include personnel expenses and the cost of materials as well as administration-related depreciation.

153 — 232 Consolidated Financial Statements

3.23 Impairment gains and losses on trade receivables

Value adjustments and reversals for trade receivables and contract assets in accordance with IFRS 9 are reported in the consolidated statement of income for the first time in a separate item. In the prior year, for materiality reasons the corresponding amounts were reported in other operating income and other operating expenses.

3.24 Other operating income and expenses

Income from the reversal of provisions is recorded in the functional costs, insofar as the provision was also generated in the corresponding functional costs. If the provision was set aside in other operating expenses, the provision reversal will also be shown in other operating expenses. Furthermore, these items include currency exchange gains and losses arising from operational receivables and liabilities as well as net gains and losses arising from hedging instruments for these items. The items also include effects arising from the hedging of net positions. In addition to other taxes, restructuring expenses as well as expenses for group projects are also allocated to other operating expenses. Income and expenses from the measurement of the fair value of contingent considerations arising from corporate acquisitions are shown in these items if the contingent considerations are dependent upon financial parameters within the EBIT.

3.25 Financial income and financial expenses

The financial income and financial expenses of the Group mainly comprise interest income and interest expenses. In addition, the financial result includes currency exchange gains and losses arising from financial assets and liabilities as well as net gains and losses arising from hedging instruments for these financial assets and liabilities.

4 Disclosures on the Statement of Income

4.1 Revenue

In contrast to 2019, revenue reduced overall by 88,039 thousand euros or 10.3 percent to 767,196 thousand euros.

Detailed disclosures on revenue according to division and region are shown in the Segment report from page 119. An additional breakdown of revenues by target markets is included in the Management report on page 106.

A breakdown of revenue, recognized over time and at the point in time is shown in the table below. Despite the decline in revenue the increase in revenue recognized over time results on the one hand from the revenue contribution of the acquired INTEROB and on the other hand from a higher proportion of customer-specific products, which require realization over time.

The revenue recognized over time included revenue from customer-specific volume production in the sum of 144,161 thousand euros (prior year: 129,427 thousand euros). In addition, revenue for customer-specific individual production, services provided and arising from the Traffic Service Provision contracts were recorded over time.

Revenue in the Light & Safety division also included other revenue from embedded operating lease contracts in the sum of 11,139 thousand euros (prior year: 10,284 thousand euros).

Revenue for performance obligations that had already been fulfilled in previous years was realized in the fiscal year just passed in the sum of 482 thousand euros (prior year: 372 thousand euros), in particular on the basis of variable components of the consideration in return, the amounts of which were previously subject to uncertainty.

in thousand euros	Light & Optics	Light & Production	Light & Safety	VINCORION	Other	Group
External revenue	**317,993 (350,037)**	**178,950 (228,907)**	**114,008 (108,681)**	**151,730 (164,798)**	**4,516 (2,812)**	**767,196 (855,235)**
thereof recognized over time	137,666 (128,275)	89,191 (74,840)	39,469 (30,236)	24,479 (23,443)	4,516 (2,812)	295,321 (259,607)
thereof recognized at a point in time	180,327 (221,762)	89,759 (154,067)	74,538 (78,445)	127,251 (141,354)	0 (0)	471,876 (595,629)

The figures in brackets relate to the prior year.

Revenue also included revenues arising from the so-called "bill and hold" agreements in the sum of 13,528 thousand euros (prior year: 7,639 thousand euros). The increase is attributable to agreements initiated by customers.

4.2 Cost of sales

in thousand euros	1/1–31/12/2020	1/1–31/12/2019
Cost of materials	292,595	340,914
Personnel expenses	156,913	168,966
Depreciation and amortization	28,099	28,264
Other expenses	27,398	25,290
Total	**505,005**	**563,435**

Compared with 2019, the cost of sales reduced overall by 58,430 thousand euros or 10.4 percent to 505,005 thousand euros. The decrease in the cost of sales is mainly due to the lower revenue.

4.3 Research and development expenses

In 2020, research and development expenses increased overall compared with the prior year, by 397 thousand euros to 43,655 thousand euros.

These cover all expenses attributable to research and development activities. These statement of income items did not include expenses paid by customers in connection with research and development services in the sum of 16,318 thousand euros (prior year: 20,408 thousand euros). Such expenditures were allocated to cost of sales.

In the fiscal year just past, costs in the sum of 8,641 thousand euros (prior year: 3,801 thousand euros) were capitalized in the intangible assets for internal development projects.

More detailed information on the Group's research and development activities is provided in the Combined Management Report in the section "Research and development" from page 92.

4.4 Selling expenses

In 2020, selling expenses reduced overall compared to 2019 by 2,948 thousand euros or 3.3 percent to 86,401 thousand euros. This is attributable to general cost reductions in the course of COVID-19 which outweighed the addition of TRIOPTICS and INTEROB to the scope of consolidation.

Selling expenses essentially comprise material costs in the sum of 6,119 thousand euros (prior year: 4,356 thousand euros), personnel expenses in the sum of 48,980 thousand euros (prior year: 51,736 thousand euros) and depreciation and amortization in the sum of 12,173 thousand euros (prior year: 7,053 thousand euros).

4.5 General administrative expenses

In 2020, general administrative expenses increased compared to the prior year by 1,216 thousand euros to 61,755 thousand euros. This is due in particular to the addition of TRIOPTICS and INTEROB to the scope of consolidation.

General administrative expenses essentially comprise personnel expenses in the sum of 46,157 thousand euros (prior year: 43,884 thousand euros) and depreciation and amortization in the sum of 7,238 thousand euros (prior year: 5,542 thousand euros) and other expenses of 8,359 thousand euros (prior year: 11,112 thousand euros).

4.6 Expenses according to types of expense

The following main types of expenses are included in revenue, selling and administrative expenses as well as in the research and development expenses:

in thousand euros	1/1–31/12/2020	1/1–31/12/2019
Cost of materials	312,479	344,776
Personnel expenses	291,049	301,076
Depreciation and amortization	50,343	43,802
Other expenses	42,945	67,720
Total	**696,816**	**757,374**

The change in the types of expense is attributable in particular to the lower revenue. The increase in depreciation and amortization is mainly due to intangible assets identified as part of the purchase price allocations resulting from the acquisition of TRIOPTICS and INTEROB.

4.7 Impairment gains and losses on trade receivables

in thousand euros	1/1–31/12/2020	1/1–31/12/2019
Impairment gains	5,814	1,740
Impairment losses	1,895	4,486
Total	**3,919**	**−2,746**

The impairment gains and losses shown in this item are in accordance with IFRS 9 and relate to trade receivables and contract assets.

Impairment gains and losses from trade receivables show an overall positive result. Reversals of impairment losses significantly exceeded impairment expenses. This is mainly due to an increased focus on receivables management, which led to a significant decrease in longer-term overdue receivables and consequently to a decrease in generalized individual value adjustments.

Impairment losses fell by 2,591 thousand euros compared to the prior year (prior year: 4,486 thousand euros). This is primarily attributable to the significant improvement in the maturity structure of trade receivables. The improvement in the maturity structure of trade receivables was achieved through targeted measures aimed at increasing efficiency in receivables management.

Further information on income and expenses in connection with impairments to receivables is shown in Section 8.2 "Financial Instruments" (from page 172) as well as Section "Current trade receivables" (from page 194).

4.8 Other operating income

in thousand euros	1/1 – 31/12/2020	1/1 – 31/12/2019
Income from currency gains	8,299	7,042
Income from services, offsets and rental	2,062	2,527
Income from non-cash contributions	1,936	1,930
Income from sale of intangible assets and property, plant and equipment	1,587	136
Income from adjustment to fair values of earn-out liabilities	1,567	819
Income from government grants	1,259	988
Income from at-equity accounting	703	530
Income from damage claims / insurance payments	651	508
Income from sale of materials	126	262
Others	2,425	2,104
Total	**20,616**	**16,846**

In 2020, other operating income increased by 3,770 thousand euros and consequently by 22.4 percent to 20,616 thousand euros.

Income from from foreign currency exchange gains mainly include gains arising from fluctuations in exchange rates between the transaction date and the payment date of receivables and payables in foreign currencies, as well as exchange rate gains arising from the valuation at the exchange rate on the reporting date.

Income from services, offsets and rentals which is not derived from the normal business activity of the entities, is shown under other operating income.

Income from government grants essentially related to grants for research and development projects that Jenoptik received from the Federal Ministry for Education and Research and other federal and European institutions.

The income from the adjustment to the fair values of contingent liabilities relates to variable purchase price components arising from the acquisition of OTTO and INTEROB.

Other operating income includes, among other things, income from the operation of staff canteens.

4.9 Other operating expenses

in thousand euros	1/1 – 31/12/2020	1/1 – 31/12/2019
Reorganization and restructuring	13,191	0
Foreign currency exchange losses	10,121	9,143
Acquisition costs	3,611	2,052
Expenses for group projects	3,300	3,696
Impairments of intangible assets and property, plant and equipment	1,733	1,248
Expenses for services and rentals	1,464	2,560
Income from fair value adjustment of contingent liabilities	1,091	0
Losses from disposals of intangible assets and property, plant and equipment	681	172
Other taxes	458	611
Amortization of intangible assets from a first-time consolidation	0	918
Additions/reversals of provisions	– 644	– 158
Others	597	2,801
Total	**35,604**	**23,045**

Other operating expenses rose compared with the prior year by 54.5 percent to 35,604 thousand euros.

The expenses incurred from foreign currency exchange losses primarily include losses from changes in currency exchange rates between the transaction date and the date of payment of foreign currency receivables or payables, as well as from the valuation at the exchange rate on the reporting date. In addition, the results from the hedging of net exposures in foreign currency led to a loss. Exchange rate gains resulting from these items are recognized under other operating income. Foreign currency gains and losses led to a net loss of 1,822 thousand euros in 2020 (prior year: net loss of 2,101 thousand euros).

Group projects mainly involve non-capitalizable expenses for the implementation of a new group-wide ERP system, as well as expenses for measures designed to increase the efficiency of Jenoptik's management processes and organization.

Impairment losses on intangible assets and property, plant and equipment, are in particular the result of a property write-down. The impairment loss was based on future realizable rental income, which was lower by comparison with prior years.

The transaction costs include, in particular, consultation costs in connection with the acquisition of INTEROB and TRIOPTICS as well as other costs for the auditing of potential corporate acquisitions.

The addition to and reversal of provisions included reversals of minus 644 thousand euros (prior year: minus 158 thousand euros) which could not be directly allocated to functional costs. More information on these items can be found in the section "Other provisions" from page 204.

Restructuring expenses include cost-cutting and efficiency improvement measures which were required mainly as a result of the structural shift in the automotive industry to electro-mobility and the ongoing COVID-19 pandemic. In addition, restructuring expenses for measures in the VINCORION division for process and structural streamlining to achieve the desired product focusing and greater independence.

The expenses from the adjustment to the fair values of contingent liabilities relate to variable purchase price components arising from the acquisition of TRIOPTICS.

Other operating expenses in the 2020 fiscal year include, amongst others, expenses for the operation of staff canteens.

4.10 Financial income and financial expenses

in thousand euros	1/1–31/12/2020	1/1–31/12/2019
Income from measuring financial instruments in foreign currency	3,227	4,295
Income from the reversal of impairment losses on current financial investments as well as cash and cash equivalents	337	631
Other interest and similar income	1,893	419
Total financial income	**5,458**	**5,345**
Expenses for measuring financial instruments in foreign currency	4,600	3,782
Financing costs for syndicated loans, promissory note loans and bridge financing	2,832	1,863
Accrued interest on other provisions and liabilities	1,214	702
Interest expenses for leases	1,507	1,617
Net interest expenses for pension provisions	264	585
Other interest and similar expenses	1,118	506
Total financial expenses	**11,534**	**9,055**
Total	**−6,077**	**−3,709**

The net balance of financial income and financial expenses reduced by 2,367 thousand euros or 63.8 percent to minus 6,077 thousand euros (prior year: minus 3,709 thousand euros).

Income from the foreign currency valuation of financial transactions in the sum of 3,227 thousand euros (prior year: 4,295 thousand euros) and countervailing expenses in the sum of 4,600 thousand euros (prior year: 3,782 thousand euros) led to a net loss of 1,373 thousand euros in fiscal year 2020 (prior year: net gain of 513 thousand euros). This result is attributable to currency exchange gains and losses arising from the group financing.

The change in the impairment loss set aside for current cash deposits as well as cash and and cash equivalents resulted in the income of 330 thousand euros in the 2020 fiscal year (income 337 thousand euros and expenses 7 thousand euros; prior year: income of 631 thousand euros), mainly due to the reduction in the cash deposits and cash equivalents as at the end of the fiscal year compared with the prior year.

The items financing costs for syndicated loans, debenture bonds and bridging loans include not only interest expenses but also the commitment fees and transaction fees paid to the banks.

153 232 Consolidated Financial Statements

Other interest and similar income primarily comprise investment income. In 2020, this item included in particular the payout from a former property-owning, limited partnership. This item also includes income from dividend payments from investment companies, income from current financial investments as well as impairments to and reversals of financial investments.

Interest expenses for leases reduced by 110 thousand euros to 1,507 thousand euros (prior year: 1,617 thousand euros).

The item other interest and similar expenses include, in particular, guarantee and bank charges, as well as interest expenses for other loans and interest rate derivatives.

4.11 Income taxes

Current income tax expenses (paid or owing), as well as deferred tax assets and deferred tax liabilities in the individual countries, are shown as income taxes. The current income tax expenses of the Jenoptik Group was calculated by applying the tax rates applicable at the balance sheet date.

The calculation of the deferred taxes for the domestic entities was based on a tax rate of 29.73 percent (prior year: 29.80 percent). In addition to the corporation tax at 15.0 percent (prior year: 15.0 percent) and the solidarity surcharge of 5.5 percent of the corporation tax charge (prior year 5.5 percent), an effective trade tax rate of 13.91 percent (prior year: 13.98 percent) was taken into account. The calculation of deferred taxes for foreign entities is based on the tax rates applicable in the respective country.

Deferred taxes are recognized as either tax expenses or tax income in the statement of income, unless these directly relate to items recognized outside of profit or loss in other comprehensive income. In this event, deferred taxes are also recognized outside of profit or loss in other comprehensive income.

Uncertainties regarding income tax treatment are analyzed on an ongoing basis. If it is probable that the tax authorities will not accept uncertain income tax treatment, an appropriate risk provision is made. The amount of risk provisioning corresponds to the amount that, taking into account any tax uncertainties, represents the most likely value or the expected value. Uncertain tax issues are not considered separately, but considered together.

Tax expenses were classified according to origin as follows:

in thousand euros	1/1 – 31/12/2020	1/1 – 31/12/2019
Current income tax expense		
Germany	5,094	8,406
Abroad	3,306	2,963
Total	**8,400**	**11,369**
Deferred taxes		
Germany	4,844	7,200
Abroad	−2,740	−1,004
Total	**2,104**	**6,196**
Total income taxes	**10,504**	**17,565**

The current income tax expense includes for 2020 an income in the sum of 307 thousand euros (prior year: expense of 568 thousand euros) for current taxes from earlier reporting periods. Deferred tax expenses include expenses relating to a different period in the sum of 417 thousand euros (prior year: income 18 thousand euros).

Deferred tax expenses include an expense resulting from the development of timing differences in the sum of 838 thousand euros (prior year: expense 2,838 thousand euros).

As at the balance sheet date, the Jenoptik Group had the following tax losses carried forward at its disposal for offsetting against future profits:

in thousand euros	31/12/2020	31/12/2019
Corporation tax	180,839	213,065
Trade tax	340,316	368,699

The reduction in tax losses carried forward mainly resulted from their being used in the fiscal year just past. Taking into consideration all currently known positive and negative factors influencing the future tax results of the Jenoptik Group, a utilization of the corporation tax loss carried forward of 157,021 thousand euros (prior year: 183,793 thousand euros) and the use of a trade tax loss carried forward of 259,049 thousand euros (prior year: 239,661 thousand euros) is probable. A deferred tax claim of 61,276 thousand euros (prior year: 63,108 thousand euros) was recognized for these available tax losses carried forward. Of which 36,019 thousand euros (prior year: 33,490 thousand euros) was attributable to trade tax losses carried forward.

For the remaining, non-utilizable losses carried forward, no deferred tax assets were recognized for corporation tax purposes in the sum of 23,818 thousand euros (prior year: 29,272 thousand euros) and for trade tax purposes in the sum of 81,267 thousand euros (prior year: 129,038 thousand euros).

A portion of the tax losses carried forward is subject to a time limit for carry forward purposes:

in thousand euros	31/12/2020	31/12/2019
1 year or less	112	618
2 years to 5 years	1,750	3,850
6 years to 9 years	2,602	2,823
More than 9 years	415	411
Total losses carried forward subject to a time limit	**4,879**	**7,702**

No deferred tax assets were shown for allowable time differences in the sum of 6,646 thousand euros (prior year: 7,336 thousand euros) as these will probably not be realized in the underlying reporting period.

The following recognized deferred tax assets and deferred tax liabilities were attributed to recognition and valuation differences in the individual statement of financial position items and to tax losses carried forward:

	Deferred tax assets		Deferred tax liabilities	
in thousand euros	31/12/2020	31/12/2019	31/12/2020	31/12/2019
Intangible Assets	3,774	3,825	19,019	5,332
Property, plant, and equipment	1,047	822	15,326	15,899
Financial investments	111	1,092	1,044	1,961
Inventories	7,202	6,775	293	98
Receivables and other assets	1,133	1,592	6,796	7,076
Provisions	13,877	13,766	836	3,974
Liabilities	14,671	17,209	741	28
Tax losses carried forward and tax refunds	63,965	65,320	0	0
Gross value	**105,780**	**110,401**	**44,055**	**34,368**
Offset	−31,197	−32,683	−31,197	−32,683
Value presented in statement of financial position	**74,583**	**77,718**	**12,858**	**1,685**

The net inventory of the asset surplus in deferred taxes reduced by 14,308 thousand euros. Taking into consideration the initial consolidations (minus 13,736 thousand euros), deferred taxes recognized outside of profit or loss (plus 1,825 thousand euros), as well as the foreign currency exchange conversions (minus 293 thousand euros) in the reporting year, this gave rise to deferred tax expenses of 2,104 thousand euros shown in the statement of income.

Temporary differences in the sum of 155,256 thousand euros (prior year: 122,739 thousand euros) related to shares in subsidiaries for which no deferred tax liabilities have been created due to IAS 12.39. Deferred tax liabilities in the sum of 222 thousand euros (prior year: 37 thousand euros) were set aside on outside basis differences in accordance with IAS 12.40.

The following table shows the tax reconciliation between the tax expense expected in the respective fiscal year and the actual tax expense recognized. To determine the anticipated tax expense, in the fiscal year 2020 the applicable group tax rate of 29.73 percent (prior year: 29.80 percent) was multiplied by the earnings before tax.

in thousand euros	1/1 – 31/12/2020	1/1 – 31/12/2019
Earnings before tax	**53,235**	**85,206**
Income tax rate for the Jenoptik Group in %	29.73	29.80
Expected tax expense	**15,827**	**25,391**
Following tax effects resulted in the difference between the actual and the expected tax expense:		
Non-deductible expenses, tax-exempt income and permanent deviations	2,557	81
Change in the realizability of deferred tax assets and tax credits	−8,064	−8,387
Effects arising from differences in tax rates	−534	−246
Implications of changes in tax rates	520	−118
Taxes in prior years	110	550
Other tax effects	88	294
Total adjustments	**−5,323**	**−7,826**
Tax expenses according to the income statement	**10,504**	**17,565**

4.12 Earnings from non-controlling interests

The income/loss from non-controlling interests in the group earnings totaled 963 thousand euros (prior year: minus 11 thousand euros) and related to the non-controlling interests in various TRIOPTICS distribution companies, JENOPTIK Korea Corporation Ltd. and JENOPTIK Japan Co. Ltd. (up to the acquisition of the minority shareholder’s shares), as well as Asam Grundstücksverwaltungsgesellschaft mbH & Co Vermietungs KG.

4.13 Earnings per share

Earnings per share correspond to the earnings attributable to shareholders divided by the weighted average of outstanding shares.

	1/1 – 31/12/2020	1/1 – 31/12/2019
Earnings attributable to shareholders in thousand euros	41,769	67,652
Weighted average number of outstanding shares	57,238,115	57,238,115
Earnings per share in euros (undiluted = diluted)	**0.73**	**1.18**

5 Disclosures on the Statement of Financial Position

5.1 Intangible assets

in thousand euros	Development costs arising from internal development projects	Acquired patents, trademarks, software, customer relationships	Internally generated patents	Goodwill	Other intangible assets	Total
Acquisition/production costs	**19,335**	**104,011**	**2,436**	**175,806**	**4,622**	**306,210**
Balance as of 1/1/2020	**(15,525)**	**(101,326)**	**(2,226)**	**(169,646)**	**(1,041)**	**(289,763)**
Adjustment as a result of IFRS 16	0	0	0	0	0	0
	(0)	(– 542)	(0)	(0)	(0)	(– 542)
Foreign currency exchange effects	10	– 3,154	0	– 6,895	0	– 10,039
	(16)	(2,478)	(0)	(5,813)	(0)	(8,307)
Changes in the group of entities	0	50,167	0	231,146	17	281,330
consolidated	(0)	(– 463)	(0)	(348)	(0)	(– 116)
Additions	8,641	3,692	390	0	4,582	17,305
	(3,801)	(3,203)	(159)	(0)	(4,515)	(11,678)
Disposals	15	9,126	651	0	0	9,792
	(8)	(2,211)	(39)	(0)	(780)	(3,038)
Transfers (+/-)	0	1,652	0	0	– 1,652	0
	(0)	(220)	(90)	(0)	(– 154)	(157)
Acquisition/production costs	**27,971**	**147,241**	**2,176**	**400,057**	**7,569**	**585,013**
Balance as of 31/12/2020	**(19,335)**	**(104,011)**	**(2,436)**	**(175,806)**	**(4,622)**	**(306,210)**
Amortization and impairments	**13,748**	**68,769**	**1,061**	**9,895**	**0**	**93,474**
Balance as of 1/1/2020	**(13,635)**	**(59,872)**	**(807)**	**(9,895)**	**(0)**	**(84,209)**
Adjustment as a result of IFRS 16	0	0	0	0	0	0
	(0)	(– 30)	(0)	(0)	(0)	(– 30)
Foreign currency exchange effects	10	– 1,344	0	0	0	– 1,334
	(11)	(579)	(0)	(0)	(0)	(590)
Changes in the group of entities	0	– 527	0	0	0	– 527
consolidated	(0)	(0)	(0)	(0)	(0)	(0)
Additions	229	15,167	197	0	0	15,592
	(109)	(10,497)	(162)	(0)	(0)	(10,768)
Impairment losses	0	179	0	0	0	179
	(0)	(5)	(12)	(0)	(780)	(796)
Disposals	15	9,113	318	0	0	9,445
	(8)	(2,210)	(10)	(0)	(780)	(3,007)
Transfers (+/-)	0	0	0	0	0	0
	(0)	(57)	(90)	(0)	(0)	(147)
Amortization and impairments	**13,972**	**73,132**	**940**	**9,895**	**0**	**97,938**
Balance as of 31/12/2020	**(13,748)**	**(68,769)**	**(1,061)**	**(9,895)**	**(0)**	**(93,474)**
Net carrying amount as of 31/12/2020	**13,999**	**74,110**	**1,236**	**390,161**	**7,569**	**487,075**
	(5,586)	**(35,242)**	**(1,375)**	**(165,911)**	**(4,622)**	**(212,736)**

The figures in brackets relate to the prior year.

The marked increase in intangible assets is attributable in particular to the acquisitions of TRIOPTICS and INTEROB which, together with the revised inclusion of HILLOS GmbH, are shown as changes in the scope of consolidation. More detailed information on the acquisitions is shown in the Chapter "Corporate acquisitions" from page 167.

Assets acquired in return for payment which are still in development are shown as other intangible assets. Additions to these totaled 4,071 thousand euros (prior year: 4,253 thousand euros) arising from investments in the new ERP-system SAP S/4HANA which is under development and is being introduced as part of a process and data harmonization program. As a result of the successful Go-Live at JENOPTIK AG as the first company, completed modules were transferred to the category of software acquired in return for payment.

Additions to development costs from internal development projects relate in particular to the VINCORION and Light & Optics divisions. As of December 31, 2020, unfinished development projects in the amount of EUR 12,374 thousand euros were accounted for in this item.

Disposals of patents, trademarks, software, and customer relationships primarily relate to intangible assets that were recorded in prior years within the context of acquisitions and are written off in full at the end of their useful life.

As in the prior year, intangible assets were not subject to any disposal restrictions. The order commitments for intangible assets totaled 305 thousand euros (prior year: 46 thousand euros).

Other than goodwill, there were no intangible assets with an undefinable useful life.

As of December 31, 2020 the goodwill totaled 390,161 thousand euros (prior year: 165,911 thousand euros). Additions to goodwill in the sum of 231,146 thousand euros resulted from the initial consolidation of TRIOPTICS (211,304 thousand euros) and INTEROB (19,842 thousand euros). The further change in the carrying amounts in the sum of minus 6,895 thousand euros was attributable exclusively to currency effects (prior year: 5,813 thousand euros).

As in the prior year, no impairments to goodwill were required in the 2020 fiscal year.

The following table summarizes the goodwill for the cash-generating units which continued to correspond to the divisions:

in thousand euros	31/12/2020	31/12/2019
Light & Optics	255,658	44,598
Light & Production	88,163	72,900
Light & Safety	40,217	42,290
VINCORION	6,124	6,124
Total	**390,161**	**165,911**

The impairment test for goodwill was performed at the level of the cash-generating units benefiting from the synergies of the respective corporate merger and representing the lowest level at which goodwill is monitored for internal company management. If the carrying amounts of these cash-generating units exceeded their recoverable amounts, the goodwill allocated was correspondingly reduced. The determining factor for the impairment test was the recoverable amount, i.e. the higher of the two amounts derived from the fair value less costs to sell or value in use.

Jenoptik calculated the recoverable amount in the form of the value in use, based on a discounted cash flow method. The basis for this is the five-year corporate plan approved by the Management. This took past experience into consideration and was based on the management's best estimate of future development. The cash flows in the detailed planning phase were planned on the basis of differentiated growth rates. These took account of the development and dynamics of the relevant sectors and target markets.

However, against the background of the ongoing COVID-19 pandemic, there is increased uncertainty with regard to the forecasts of projected cash flows. Based on past experience, the five-year corporate plan has assumed that COVID-19 will not have any further significant negative impact in 2021 and that a marked recovery will begin in the medium term (e.g. thanks to available vaccines).

The following planning assumptions were used for divisions with significant goodwill:

Despite the strong contribution to revenue by TRIOPTICS, in the 2020 fiscal year the Light & Optics division was only partially successful in continuing its positive revenue performance in the semiconductor equipment industry. As a result of the Corona pandemic, the Biophotonics and Industrial Solutions business areas reported figures down on the prior year. Nevertheless, both the gross margin and the EBITDA margin could be increased through the cost savings implemented. For new revenue growth, the division is focusing on the areas of Semi & Advanced Manufacturing, Biophotonics, Industrial Solutions and Testing & Measurement. While the areas influenced by Corona benefit from the expected medium-term recovery, the newly acquired Testing & Measurement area focuses on consumer electronics, automotive and mechanical engineering in order to achieve significant growth of the division in the medium term through the targeted use of opportunities and synergies. A moderate increase in the EBITDA margin is associated with the division's planned significant growth in revenue.

In the fiscal year just past the Light & Production division posted a reduction in revenue, with profitability also lower. The reasons for this are the general structural shift, the trend towards e-mobility, uncertainties in the automotive sector plus the effects of the COVID-19 pandemic. Future growth will be driven by the continued focus on integrated production solutions and the processing of key industries such as engineering solutions or service for industrial customers (B2B) on an international level. The aim is to exploit the anticipated synergy effects arising from acquisitions over prior years. The corporate planning takes into account overall significant growth for the Light & Production division due to the expected revival of business. Supported by continuous structure and process optimization as well as the restructuring measures already initiated, an increase in profitability is expected in the medium term.

The Light & Safety division recorded a solid rise in revenue in the 2020 fiscal year, together with a slight increase in profitability. The focus of development over the coming years will be on the increasing level of internationalization, especially in the regions of America, the Middle East/North Africa, and other European countries. Here again, the on-going continuation of structural and process optimizations as well as the increase in the generation of local and international value added are expected to bring about a sustained increase in revenue and profitability over the medium term.

For determining the free cash flow the result of the respective planning year is adjusted for non-cash expenses and income such as depreciation.

This assumes a perpetual annuity, the amount of which is individually determined by management for each cash-generating unit from the fifth year of the planning time frame. The perpetual annuity includes a growth component in the form of a deduction on the capitalization interest rate of between 0.9 and 2.0 percentage points (prior year 0.9 and 1.1 percentage points). Non-recurring effects in the last year of the plan are eliminated prior to calculating the perpetual annuity.

The weighted average cost of capital after taxes required for the impairment tests is determined by using the capital asset pricing model for determining the cost of equity. The components for calculating the cost of equity are a risk-free interest rate, the market risk premium, a beta factor customary in our industry determined from division-specific peer groups as well as the average country risk of each cash-generating unit. Borrowing costs were determined by including a risk-free interest rate, the spread customary in our industry and the standard average tax rate. The weighted costs of equity and borrowing costs resulted from applying the capital structure customary in our industry.

Impairment testing was conducted assuming a weighted average cost of capital after taxes at a rate between 6.76 and 9.56 percent (prior year: 6.01 to 9.47 percent). This corresponded to the weighted average cost of capital before tax of between 8.52 and 12.61 percent (prior year 8.02 to 12.87 percent).

The assumptions used to determine the values in use of the cash-generating unit are shown in the following table:

	Growth components in the perpetual annuity	Weighted cost of capital after tax	Weighted cost of capital before tax
Light & Optics	1.00	9.56	12.61
	(1.10)	(9.47)	(12.87)
Light & Production	1.00	8.17	10.38
	(0.90)	(9.15)	(11.89)
Light & Safety	0.90	6.76	8.52
	(0.90)	(6.47)	(8.14)
VINCORION	0.90	6.80	9.63
	(0.90)	(6.01)	(8.02)

The figures in brackets relate to the prior year.

Sensitivity analyses were conducted for all cash-generating units to which goodwill was allocated as of December 31, 2020. A reduction in the cash flows or an increase in the weighted cost of capital within the range considered by the management as possible – including against the background of the current uncertainty surrounding COVID-19 – would not result in the recoverable amount being less than the carrying amount of the cash-generating units.

5.2 Property, plant, and equipment

in thousand euros	Land, buildings	Technical equipment and machinery	Other equipment, operating and office equipment	Equipment under construction	Total
Acquisition/production costs Balance as of 1/1/2020	**231,452**	**205,344**	**115,278**	**24,714**	**576,787**
	(171,075)	**(194,631)**	**(107,491)**	**(15,438)**	**(488,635)**
Adjustment as a result of IFRS 16	0	0	0	0	0
	(50,788)	(303)	(3,752)	(0)	(54,842)
Foreign currency exchange effects	– 2,816	– 4,098	– 693	– 137	– 7,743
	(941)	(1,274)	(308)	(8)	(2,531)
Changes in the group of entities consolidated	20,477	1,290	– 436	193	21,524
	(0)	(0)	(0)	(0)	(0)
Additions	5,901	9,724	7,718	6,604	29,947
	(6,930)	(10,559)	(8,236)	(18,173)	(43,897)
Disposals	6,567	12,347	4,622	42	23,579
	(493)	(6,962)	(4,558)	(992)	(13,005)
Transfers (+/-)	12,728	7,361	905	– 20,996	– 2
	(2,212)	(5,539)	(49)	(–7,914)	(–114)
Acquisition/production costs Balance as of 31/12/2020	**261,175**	**207,274**	**118,150**	**10,336**	**596,934**
	(231,452)	**(205,344)**	**(115,278)**	**(24,714)**	**(576,787)**
Depreciation and impairments Balance as of 1/1/2020	**83,184**	**154,909**	**87,571**	**0**	**325,664**
	(71,836)	**(148,064)**	**(82,805)**	**(0)**	**(302,705)**
Foreign currency exchange effects	– 613	– 2,898	– 387	0	– 3,897
	(121)	(832)	(99)	(0)	(1,052)
Changes in the group of entities consolidated	– 29	– 1,635	– 3,107	0	– 4,771
	(0)	(0)	(0)	(0)	(0)
Additions	12,664	13,156	9,378	0	35,198
	(11,512)	(12,029)	(9,409)	(0)	(32,950)
Impairment losses	1,138	353	59	0	1,550
	(205)	(113)	(134)	(0)	(452)
Impairment reversal	– 205	– 40	– 43	0	– 288
	(0)	(0)	(0)	(0)	(0)
Disposals	4,609	11,356	4,054	0	20,019
	(346)	(6,775)	(4,220)	(0)	(11,342)
Transfers (+/-)	0	0	– 2	0	– 2
	(–143)	(647)	(–656)	(0)	(–152)
Depreciation and impairments Balance as of 31/12/2020	**91,531**	**152,490**	**89,415**	**0**	**333,436**
	(83,184)	**(154,909)**	**(87,571)**	**(0)**	**(325,664)**
Net carrying amount as of 31/12/2020	**169,644**	**54,784**	**28,734**	**10,336**	**263,499**
	(148,267)	**(50,435)**	**(27,707)**	**(24,714)**	**(251,123)**

The figures in brackets relate to the prior year.

The increase in property, plant and equipment was primarily attributable to the initial consolidation of TRIOPTICS.

Land and buildings of the Group in the amount of 169,644 thousand euros (prior year: 148,267 thousand euros) mainly comprised the Group's own production and administrative buildings in Jena, Altenstadt, Wedel, Bayeux (France), Huntsville (USA), Shanghai (China) and Rochester Hills (USA) as well as the leased production and administrative buildings in Wedel, Berlin, Monheim and Camberley (UK).

More detailed explanations on the investments made are contained in the Combined Management Report, under the section "Financial position" from page 111.

Order commitments for property, plant, and equipment in the sum of 17,037 thousand euros have increased significantly compared with the prior year (prior year: 6,958 thousand euros) and primarily resulted in replacement and new investment in technical equipment and machinery.

As in fiscal year 2019, as of the balance sheet date no property, plant and equipment was pledged.

5.3 Investment Property

in thousand euros	Investment property
Acquisition/production costs Balance as of 1/1/2020	**10,495 (10,495)**
Additions	0 (0)
Disposals	0 (0)
Acquisition/production costs Balance as of 31/12/2020	**10,495 (10,495)**
Depreciation Balance as of 1/1/2020	**6,232 (6,141)**
Additions	89 (91)
Disposals	0 (0)
Depreciation Balance as of 31/12/2020	**6,321 (6,232)**
Net carrying amount as of 31/12/2020	**4,175 (4,263)**

The figures in brackets relate to the prior year.

The investment property as of December 31, 2020 primarily encompassed property in the Jena-Göschwitz Industrial Park.

The fair values totaled 4,549 thousand euros (prior year: 4,358 thousand euros). These were determined internally within the company on the basis of a discounted cash flow method. In this context, the net rents without utilities as well as the maintenance and other costs are estimated for the entire remaining useful lives of the properties and discounted over the remaining useful lives. Risk-adjusted interest rates are applied as the discount rate. As a result of the use of non-observable parameters such as interest rates, net rents without utilities, as well as maintenance and ancillary expenses, the level 3 fair value in the hierarchy of fair values is assigned.

For 2020, rental income from investment property as of the end of the fiscal year amounted to 552 thousand euros (prior year: 505 thousand euros).

In fiscal year 2020, the direct operating expenses for property and movables accounted for at the end of the year for rented space, totaled 175 thousand euros (prior year: 149 thousand euros) and for non-rented space 32 thousand euros (prior year: 39 thousand euros).

5.4 Leasing

The Group as lessee. The Group has concluded leasing contracts for real estate, technical equipment and machinery and other equipment, motor vehicles and for operating and business equipment.

The rights of use are shown in the statement of financial position under property, plant and equipment, in which the underlying assets would be presented if they were the property of the Group. A separate presentation of the rights of use as of January 1, 2020 and December 31, 2020, as well as additions and depreciation in the 2020 fiscal year, can be found in the following table.

Transfers of the rights of use for technical equipment and machinery relate to a transfer from advance payments, equipment under construction. After construction of the equipment by Jenoptik, it was sold to the future lessor and rented by Jenoptik.

in thousand euros	Rights of use to land, buildings	Rights of use to technical equipment and machinery	Rights of use to other equipment, operating and business equipment	Total rights of use
Acquisition / production costs, balance as of 1/1/2020	**54,922** **(50,788)**	**5,365** **(4,404)**	**7,203** **(4,420)**	**67,490** **(59,612)**
Foreign currency exchange effects	−1,060 (487)	−28 (4)	−85 (32)	−1,174 (523)
Changes in the scope of consolidation	2,541 (0)	87 (0)	371 (0)	2,999 (0)
Additions	3,511 (3,858)	2,409 (963)	2,105 (3,038)	8,025 (7,859)
Disposals	1,872 (206)	0 (6)	1,475 (261)	3,347 (473)
Transfers (+/-)	0 (−5)	2,443 (0)	14 (−27)	2,457 (−31)
Acquisition / production costs, balance as of 31/12/2020	**58,041** **(54,922)**	**10,277** **(5,365)**	**8,132** **(7,203)**	**76,450** **(67,490)**
Depreciation, balance as of 1/1/2020	**7,770** **0**	**1,021** **(444)**	**2,330** **(111)**	**11,121** **(554)**
Foreign currency exchange effects	−237 (31)	−12 (0)	−45 (2)	−294 (33)
Changes in the scope of consolidation	0 (0)	0 (0)	−7 (0)	−7 (0)
Additions	8,066 (7,596)	1,015 (581)	2,784 (2,329)	11,866 (10,506)
Impairment losses	259 (205)	0 (0)	27 (29)	286 (233)
Reversal of impairment losses or impairment gains	−205 (0)	0 (0)	0 (0)	−205 (0)
Disposals	383 (61)	0 (3)	1,261 (135)	1,643 (200)
Transfers (+/-)	0 (−1)	0 (0)	0 (−6)	0 (−7)
Depreciation, balance as of 31/12/2020	**15,271** **(7,770)**	**2,024** **(1,021)**	**3,828** **(2,330)**	**21,124** **(11,121)**
Carrying amount as of 31/12/2020	**42,770** **(47,152)**	**8,253** **(4,344)**	**4,303** **(4,873)**	**55,326** **(56,369)**

The figures in brackets relate to the prior year.

Lease liabilities are shown in the statement of financial position under "Non-current financial liabilities" or "Current financial liabilities" and can be taken from the following table:

in thousand euros	31/12/2020	31/12/2019
Non-current financial debt	47,726	50,380
Current financial debt	12,306	10,712

Interest expenses for leases in the fiscal year 2020 totaled 1,507 thousand euros (prior year: 1,617 thousand euros).

In addition to depreciation and interest expenses, the following expenses were recognized in the consolidated financial statement in the fiscal year:

Expenses for lease contracts (in thousand euros)	2020	2019
from short-term lease agreements	752	1,079
from low-value lease contracts	1,226	726
from variable lease payments	1,152	1,358
Total lease expenses	**3,130**	**3,163**

The variable lease payments mainly include payments for non-leasing components of lease contracts that have been accounted for in accordance with IFRS 16.

Liabilities arising from fixed lease payments are listed according to their maturity in the table below:

Liabilities from fixed lease payments (in thousand euros)	2020	2019
Up to 1 year	14,188	11,423
1 year to 5 years	35,323	32,943
More than 5 years	15,745	21,886
Total	**65,256**	**66,252**

Extension and termination options included in the leases are negotiated by Management. The assessment as to whether there is sufficient certainty regarding the exercise of these extension and termination options has been assessed and evaluated accordingly by the Management.

The non-discounted potential future lease payments for periods after the exercise date for extension and termination options, not included in the term of the lease, totaled 5,706 thousand euros (prior year: 6,809 thousand euros) as of the balance sheet date.

Further details (in thousand euros)	2020	2019
Payment obligations for short-term lease contracts	415	41
Potential cash outflows arising from extension and termination options which were not shown in the statement of financial position	5,706	6,809

In the 2020 fiscal year, the total cash outflow arising from leasing contracts (including short-term and small-value lease contracts as well as variable lease payments) with interest portion amounted to 16,896 thousand euros (prior year: 14,655 thousand euros).

In the 2020 fiscal year, income from subletting of legal assets for the use of fixed assets amounted to 173 thousand euros (prior year: 137 thousand euros).

The Group as lessor. Leases will continue to be classified as operating or finance leases.

The anticipated deposits arising from minimum lease payments are listed in the tables below according to their maturity:

Finance leases

Anticipated deposits arising from fixed lease payments (in thousand euros)	2020	2019
Up to 1 year	137	0
1 year to 2 years	57	0

Operating leases

Anticipated deposits arising from fixed lease payments (in thousand euros)	2020	2019
Up to 1 year	1,444	1,182
1 year to 2 years	1,048	368
2 years to 3 years	704	310
3 years to 4 years	77	190
4 years to 5 years	48	38
More than 5 years	48	20

Lease agreements without a termination date were only recorded in the amount of the rental income up to the earliest possible date of termination. The probability of a continuation of the lease or of granting extensions to the lease agreements, was not included in the calculation.

5.5 Investments accounted for using the equity method

The following entities were included in the consolidated financial statements as associate companies respective joint venture in accordance with the at-equity method:

TELSTAR-HOMMEL CORPORATION, Ltd., Pyeongtaek, Korea

The company is a long-standing partner for Jenoptik in the Korean market and sources components, amongst other things, from the Light & Production division.

HILLOS GmbH, Jena, Germany

The company, which had been included as a joint operation up to and including 2019, was accounted for as a joint venture with effect from January 1, 2020 as a result of the reduction in production capacities for own use by the partners. The company, which specializes in the production of laser measurement, ranging and positioning equipment, is a supplier to the Light & Optics and Light & Safety divisions, amongst others.

Trioptics France S.A.R.L., Villeurbane, France

This joint venture, acquired as part of the acquisition of Trioptics GmbH, is an integral part of the TRIOPTICS international sales network. In addition to TRIOPTICS product range, the company has concluded several partnership arrangements with European and American entities in order to offer further product solutions in the optical sector.

The following table contains summarized financial information on the companies. The share of the companies' profit due to Jenoptik is shown under other operating income.

	TELSTAR-HOMMEL Corporation, Ltd.		HILLOS GmbH	Trioptics France S.A.R.L.
in thousand euros	2020	2019	2020	2019
Disclosures on the Statement of income [1]				
Revenue	26,903	31,268	40,912	2,385
Profit/loss arising from continuing operations	101	1,590	1,401	−229
Other comprehensive income	205	164	0	0
Total comprehensive income	306	1,754	1,401	−229
Share in %	33.33 %	33.33 %	50.00 %	50.00 %
Group share of total comprehensive income [1]	**102**	**585**	**701**	**−114**
Disclosures on the statement of financial position and reconciliation to the at-equity carrying amount				
Non-current assets	18,524	18,329	20,260	0
Current assets	19,743	19,461	1,584	1,294
Non-current liabilities	1,385	2,747	138	116
Current liabilities	19,756	17,714	6,480	1,000
Equity	17,126	17,330	15,225	178
Share in %	33.33 %	33.33 %	50.00 %	50.00 %
Proportional equity = at-equity carrying amount	**5,708**	**5,776**	**7,613**	**89**

[1] Figures for Trioptics France S.A.R.L. relate to the calendar year

5.6 Financial investments

in thousand euros	31/12/2020	31/12/2019
Shares in non-consolidated, associates	347	352
Investments	494	2,135
Loans to non-consolidated, associates and investments	10	10
Other loans	2,074	0
Total	**2,926**	**2,497**

Investments

The decrease in investments is attributable to the write-down, outside of profit or loss, of the minority interest in a former property-owning limited partnership after the sale proceeds were paid out.

Other loans

Other loans are mainly derived from an escrow account which will be paid out at the end of a pending dispute over construction defects.

The table below reflects the changes in the impairments to financial investments:

in thousand euros	2020	2019
Impairments as of 1/1	**8,163**	**10,523**
Additions	17	110
Utilization	0	2,444
Reversal / derecognition	0	26
Reclassification	152	0
Impairments as of 31/12	**8,332**	**8,163**

5.7 Other non-current assets

Other non-current assets include both financial assets as well as non-financial assets.

Other non-current financial assets include the following:

in thousand euros	31/12/2020	31/12/2019
Derivatives	626	312
Receivables from lease contracts	57	0
Other non-current financial assets	1,902	334
Total	**2,585**	**646**

Other non-current financial assets essentially include claims from an insurance policy of a TRIOPTICS subsidiary.

Other non-current financial assets were not subject to any disposal restrictions (prior year: 84 thousand euros).

The aggregated item, derivative financial instruments, is explained in more detail in section 3.9 from page 172.

Other non-current, non-financial assets in the sum of 690 thousand euros (prior year: 448 thousand euros) mainly included non-current accruals, amongst others, fees for the existing syndicated loan.

5.8 Deferred taxes

The development of deferred taxes shown as an item in the statement of financial position is shown in section 8.2 from page 216.

5.9 Inventories

in thousand euros	31/12/2020	31/12/2019
Raw materials, consumables and supplies	80,336	68,459
Unfinished goods, work in progress	79,076	65,323
Finished goods and merchandise	29,659	17,648
Advance payments on inventories	2,335	2,247
Total	**191,406**	**153,678**

As of the end of the fiscal year 2020, accumulated impairment losses in the sum of 46,182 thousand euros (prior year: 41,465 thousand euros) were taken into account in the carrying amount. The net sale value of these inventories was 35,142 thousand euros (prior year: 27,728 thousand euros).

In 2020, additions and reversals totaling minus 5,939 thousand euros (prior year: 647 thousand euros) were recorded for value adjustments. This included reversals in the sum of 2,359 thousand euros (prior year: 5,430 thousand euros) as the reason for the impairment loss applied in prior years no longer existed.

The consumption of inventories affected expenses in the fiscal year in the sum of 234,937 thousand euros (prior year: 258,469 thousand euros), with the table below showing the distribution:

in thousand euros	31/12/2020	31/12/2019
Cost of sales	232,251	255,411
Research and development expenses	1,919	2,490
Selling expenses	327	329
Administrative expenses	440	239
Total	**234,937**	**258,469**

At the reporting dates there were no restrictions on the disposal of inventories.

5.10 Current trade receivables

Trade receivables

in thousand euros	31/12/2020	31/12/2019
Trade receivables from third parties	132,456	129,094
Receivables from due requested advance payments	5,277	7,583
Trade receivables from non-consolidated associates and investments	277	204
Total	**138,010**	**136,881**

The fair values of trade receivables correspond to their carrying amounts as of the reporting date. Trade receivables are not interest-bearing and generally have a due date of 30 to 60 days.

The table below shows the composition of the trade receivables:

in thousand euros	31/12/2020	31/12/2019
Gross amount of trade receivables due from third parties	138,487	137,730
Receivables from due requested advance payments	5,277	7,583
Gross amount of trade receivables from non-consolidated associates and investments	277	273
Total gross amount of trade receivables	**144,041**	**145,585**
Cumulative impairments	−6,031	−8,704
Carrying amount of trade receivables	**138,010**	**136,881**

Default risks were determined through the assessment of clients' creditworthiness by means of a scorecard, taking into account specific regional and individual company characteristics. In addition to internal company data, this includes credit assessments through external reporting agencies. Based on the rating of customers' creditworthiness, lines of credit are granted to ensure the active management of business transactions. This means for example, amongst other things, that certain payment methods can be agreed with customers depending on their creditworthiness. In addition, outstanding claims against customers are regularly monitored and measures taken to mitigate overdue claims.

The default risk is taken into account through individual impairments and flat-rate individual impairments. The following table shows the changes in impairments to outstanding trade receivables:

in thousand euros	2020	2019
Impairments as at 1/1	**8,704**	**8,208**
Changes in the group of entities consolidated	2,030	0
Additions	1,865	4,205
Consumption	572	2,004
Reversal/derecognition	5,814	1,740
Foreign currency exchange effects	−182	35
Impairments as at 31/12	**6,031**	**8,704**

The impairment requirement is analyzed at each closing date in order to determine the anticipated loan losses. If there are any objective indications of impairment losses, an individual impairment is applied. In addition, flat-rate individual impairments for receivables grouped into categories are recognized in days, on the basis of the overdue period. Finally, a flat-rate impairment is created to take into account the existing default risk for receivables not yet due and for which no impairment has been created.

Due to developments resulting from the impact of COVID-19, additional individualized valuation adjustments (post-model adjustments) are made in addition to the system-side assessment routines for determining the anticipated default risk. The valuation takes into account, in particular, geographic location, industry, support measures from public institutions as well as individual agreements with the respective customers.

The amount of the impairment to trade receivables due from third parties totaled 6,031 thousand euros (prior year: 8,635 thousand euros). The remaining impairment requirement relates mainly to receivables due from an unconsolidated investment in liquidation.

Overdue but unimpaired receivables were owed mainly by public sector contractors. As of December 31, 2020 there were no sureties for unimpaired receivables in the form of bank guarantees (prior year: 0 thousand euros).

in thousand euros	Expected credit loss rate	Expected total gross carrying amount at default	Expected credit loss
not due	0.44%	95,645	421
	0.48%	(93,397)	(448)
overdue < 30 days	0.62%	17,189	107
	0.69%	(14,461)	(99)
overdue 30–60 days	3.90%	8,988	350
	14.63%	(8,728)	(1,277)
overdue 61–120 days	16.11%	4,326	697
	20.66%	(8,115)	(1,677)
overdue 121–240 days	13.45%	2,727	367
	26.82%	(4,211)	(1,130)
overdue 241–360 days	15.65%	4,370	684
	28.60%	(3,613)	(1,033)
overdue > 360 days	64.98%	5,242	3,406
	57.09%	(5,204)	(2,971)
Total	**4.36%**	**138,487**	**6,031**
	6.27%	**(137,730)**	**(8,635)**

The table below shows the determined default risk position for trade receivables due from third parties with the help of an impairment matrix:

Payment was collected for a higher proportion of receivables with longer overdue periods as part of the stricter receivables management, consequently reducing the outstanding balances. The addition of TRIOPTICS had a contrary impact. Its receivables have been recognized at a lower expected credit loss rate in order to ensure an accurate valuation during the course of the initial consolidation. In the fiscal year 2020 the case-related individual impairments to receivables totaled 2,100 thousand euros (prior year: 2,028 thousand euros). These primarily related to receivables with an overdue date of more than 360 days.

Factoring

As a result of extended payment deadlines for customers, inputs for customer-specific projects and changes in billing modalities, Jenoptik has been utilizing factoring since the 2019 fiscal year. Within the framework of a genuine and confidential factoring program, existing receivables are sold to a factoring company (hereafter referred to as the "Factor") - together with the transfer of the default or del credere risk - in return for a consideration. The payments from the original customer to the Group shown as income (due to their confidential nature) are classified as "other current financial liabilities" and then forwarded to the Factor. Furthermore, additional receivables were sold within the framework of an open factoring program without security retention.

In the statement of financial position, sold trade receivables are derecognized on transfer of the economic ownership to the Factor in accordance with IFRS 9 and, until receipt of payment, are recognized as receivables due from the Factor under the item "Other current financial assets". The asset is finally derecognized on payment by the Factor.

Factoring charges are shown in the consolidated statement of income, under administrative expenses.

In the cash flow statement, the Factor's payments to the Group are shown under cash flows from operating activities. The payment received from the original customer and the subsequent payment as a result of the transfer to the Factor, are recognized under cash flows from financing activities.

Up to December 31, 2020, receivables to the value of 18,355 thousand euros (prior year: 20,140 thousand euros) were sold within the framework of the confidential factoring. After allowing for a surety retention by the Factor of 5 percent, payment receipts totaled 17,437 thousand euros (prior year: 19,133 thousand euros). Open factoring in the sum of 4,738 thousand euros was also carried out. The security deposit is shown under other current financial assets.

5.11 Contract assets

The statement of financial position item includes conditional claims of the Group against customers for the receipt of a consideration in return, in exchange for goods or services that have already been transferred. These are grouped as follows:

in thousand euros	31/12/2020	31/12/2019
Contract assets	**74,735**	**54,875**
Realization within one year	68,685	54,875
Realization within more than one year	6,049	0

The default risk of contract assets is basically taken into account through corresponding impairments. As of December 31, 2020, no indicators for an individual impairment were identified. The general default risk was recognized by an impairment loss equal to the amount of the anticipated loss of 0.15 percent of the balance of contract assets. The impairment loss was 112 thousand euros (prior year: 82 thousand euros).

5.12 Other current financial assets

in thousand euros	31/12/2020	31/12/2019
Receivables from Pensions-treuhandvereine (pension trust associations)	1,950	1,875
Derivatives	1,622	1,530
Indemnification claims from business combinations	1,010	40
Receivable arising from surety retention for factoring	901	840
Other current financial assets	1,008	1,164
Total	**6,492**	**5,449**

As in the prior year, in 2020 there were no restrictions on disposals of other current financial assets.

Default risks are taken into account through impairments. The composition of the carrying amount of other current financial assets is as follows:

in thousand euros	31/12/2020	31/12/2019
Gross amount of other financial assets	7,780	6,737
Accumulated impairment loss	−1,288	−1,288
Carrying amount of other financial assets as at 31/12	**6,492**	**5,449**

5.13 Other current non-financial assets

in thousand euros	31/12/2020	31/12/2019
Accruals	4,678	4,792
Receivables from grants	2,462	104
Receivables from other taxes	2,721	1,951
Receivables from income taxes	674	1,484
Other current non-financial assets	423	226
Total	**10,958**	**8,557**

As in the prior year, in 2020 there were no restrictions on disposals of other current non-financial assets.

5.14 Current financial assets

in thousand euros	31/12/2020	31/12/2019
Fair value	4,894	69,661

Short-term financial investments are mainly listed shares and bonds acquired as part of the acquisition of TRIOPTICS. The fair value is determined on the basis of the stock market prices on the qualifying date. Changes in the fair value between procurement and balance sheet date are recognized in the financial result through profit or loss.

Current cash deposits accounted for in the prior year were reversed as part of the acquisition of TRIOPTICS.

For further information on the financial instruments we refer to the Notes, section 8.2 from page 216.

5.15 Cash and cash equivalents

in thousand euros	31/12/2020	31/12/2019
Checks, cash on hand, bank balances and demand deposits or deposits with a maturity of < 3 months	63,405	99,025

For information on the change in cash equivalents we refer to the section entitled "Details on the cash flow statement" from page 209. In addition, in application of IFRS 9, an impairment of 78 thousand euros (prior year: 123 thousand euros) was recorded on the bank deposits in fiscal 2020 as provision for a default risk.

5.16 Equity

The development of the equity of Jenoptik is shown in the consolidated statement of changes in equity.

Share capital

The share capital amounts to 148,819 thousand euros and is divided into 57,238,115 no-par value registered shares.

At the beginning of July 2011 Thüringer Industriebeteiligungs GmbH & Co. KG, Erfurt, Thüringer Industriebeteiligungsgeschäftsführungs GmbH, Erfurt, bm-t beteiligungsmanagement thüringen GmbH, Erfurt, Stiftung für Unternehmensbeteiligungen und -förderungen in der gewerblichen Wirtschaft Thüringens (StUWT), Erfurt, Thüringer Aufbaubank Erfurt and the Free State of Thüringia, Erfurt, disclosed that they had exceeded the thresholds of 3, 5, and 10 percent of the voting rights in JENOPTIK AG on June 30, 2011 and that they had held 11.00 percent of the voting rights (6,296,193 voting rights) on that day. Thüringer Industriebeteiligungs GmbH & Co. KG acquired the voting rights from ECE Industriebeteiligungen GmbH.

On March 6, 2020, Allianz Global Investors GmbH, Frankfurt am Main, Germany, notified us it had exceeded the threshold of 10 percent of the voting rights in JENOPTIK AG on March 5, 2020. Accordingly, on that day Allianz Global Investors GmbH held 10.11 percent of the voting rights (5,788,418 voting rights) as attributed to it in accordance with § 34 (1) (No. 6) of the WpHG. Allianz Asset Management GmbH and Allianz SE also hold an indirect stake via Allianz Global Investors GmbH.

On March 5, 2020, Allianz SE informed us, with a voluntary Group notification with triggered threshold, that it had exceeded the threshold of 5 percent of the voting rights in JENOPTIK AG on March 2, 2020. Accordingly, on that day Allianz SE indirectly held 5.40 percent of the voting rights (3,092,867 voting rights) as attributed to it in accordance with § 34 (1) (No. 1) of the WpHG. All holdings included in this notification are managed by Allianz Global Investors GmbH . The shareholdings of Allianz Global Investors GmbH, which are subject to notification, are entirely derived from the Voting Rights Notification below dated January 16, 2020.

On April 3, 2020, DWS Investment GmbH, Frankfurt am Main, Germany, notified us it had fallen below the threshold of 10 percent of the voting rights in JENOPTIK AG on April 2, 2020. Accordingly, on that day DWS Investment GmbH held 9.82 percent of the voting rights (5,620,671 voting rights) indirectly in accordance with § 34 WpHG.

The Ministry of Finance, Oslo, Norway, notified us on October 28, 2020 on behalf of the Norwegian state that although it had continued to exceed the threshold of 3 percent of the voting rights in JENOPTIK AG on October 27, 2020, this was below the number of indirectly held voting rights in accordance with § 34 WpHG. Accordingly, the Ministry of Finance held 3.55 percent of the voting rights (2,033,454 voting rights) on that day. Of this, 2.94 percent of the voting rights (1,682,311) were held by it indirectly in accordance with § 34 WpHG and 0.61 percent of the voting rights (351,143 voting rights) as instruments via stock borrowing in accordance with § 38 (1), (No. 1) WpHG. The voting rights are held directly by the Norges Bank, Oslo, Norway.

SMALLCAP World Fund, Inc., Lutherville, Maryland, USA, notified us most recently on March 6, 2020 that it had fallen below the threshold of 3 percent of the voting rights in JENOPTIK AG on March 3, 2020. Accordingly, on that day SMALLCAP World Fund, Inc. held 2.89 percent of the voting rights (1,654,146 voting rights) which were attributable to it directly in accordance with § 33 WpHG. Capital Group Companies, Inc., Los Angeles, California, USA, notified us most recently on March 30, 2020 that it had fallen below the threshold of 3 percent of the voting rights in JENOPTIK AG on March 25, 2020. Accordingly, on that day Capital Group Companies, Inc. held 2.42 percent of the voting rights (1,382,304 voting rights) which were attributable to it indirectly in accordance with § 34 WpHG. The voting rights are directly held by Capital Research and Management Company.

AIM International Mutual Funds (Invesco International Mutual Funds), Wilmington, Delaware, USA, issued us with multiple notifications on voting rights in the fiscal year 2019, most recently on January 13, 2020 that it had fallen below of the threshold of 3 percent of the voting rights in JENOPTIK AG on January 7, 2020. Accordingly, on that day AIM International Mutual Funds (Invesco International Mutual Funds), Inc. held 2.79 percent of the voting rights (1,595,202 voting rights) which were attributable to it directly in accordance with § 33 WpHG. Invesco Ltd., Bermuda indirectly holds 2.80 percent of the voting rights (1,602,383 voting rights) via AIM International Mutual Funds in accordance with § 34 WpHG. Invesco Ltd. merged with the Oppenheimer International Small-Mid Company Fund in 2019 which notified us most recently on January 25, 2018 that it had exceeded the 3 percent threshold.

BlackRock, Inc., Wilmington, USA, notified us on June 24, 2020 that it had fallen below the threshold of 3 percent of the voting rights in JENOPTIK AG, on June 19, 2020. Accordingly, BlackRock, Inc., held 2.56 percent of the voting rights (1,464,206 voting rights) on that day. 2.42 percent of the voting rights (1,384,195 voting rights) were attributable to BlackRock, Inc. indirectly in accordance with § 34 of the WpHG. 0.14 percent of the voting rights (80,011 voting rights) were attributable to instruments in accordance with § 38 (1), (No. 1) WpHG.

The voting right notifications of recent years and the notifications of shareholders that had closed out their investments, are also published on our Internet site www.jenoptik.com under Investors/Share/Voting rights announcements.

Authorized capital

An "Authorized Capital 2019" was created with the resolution passed by the Annual General Meeting on June 12, 2019 as follows: The Executive Board is authorized through June 11, 2024, with the consent of the Supervisory Board, to increase the nominal capital of the company by up to 44,000 thousand euros through one or multiple issues of new, no-par value registered shares against cash and/or property, plant, and equipment ("Authorized Capital 2019"). The new shares can be taken up by one or more banks with the obligation to offer these to shareholders (indirect subscription rights). With the consent of the Supervisory Board, the Executive Board is authorized to preclude subscription rights for shareholders in certain cases: a) fractional amounts; b) capital increases against contributions in-kind in particular also within the framework of business combinations or the acquisition of companies, units of companies or investments in companies (including increasing existing investments) or other contributable assets in conjunction with such an intended acquisition as well as claims against the entity; c) capital increases against cash contributions, under the condition that the percentage of any new shares in the share capital does not in total exceed 10 percent of the share capital at the time the authorized shares are registered or in total 10 percent of the share capital at the time the new shares are issued, taking into consideration resolutions of the AGM or the use of other authorizations to preclude subscription rights in a direct or corresponding application of § 186 (3) (4) AktG [German Stock Corporation Act] since the effective date of this authorization and the issuance price of the new shares is not significantly lower than the stock market price; d) issuances of new shares to employees of the entity and to associates in which the entity holds a majority interest.

All aforementioned authorizations to exclude subscription rights are limited to a total of 10 percent of the share capital available at the time this authorization became effective – or, if this value is lower - to 10 percent of the share capital at the time this authorization is exercised. This limit of 10 percent includes shares that (i) are sold for the purpose of servicing warrants and/or convertibles that were or could still be issued during the period of validity of authorized capital to the exclusion of subscription rights or (ii) are sold by the entity as treasury shares during the period of validity of authorized capital to the exclusion of subscription rights.

Decisions on the details of the issuance of new shares, in particular their conditions and the content of rights of the new shares, are taken by the Executive Board, with the consent of the Supervisory Board. The Authorized Capital 2019 has not yet been utilized.

Conditional capital

The shareholder resolution passed at the Annual General Meeting (AGM) held on June 7, 2017, to contingently raise the share capital of the entity by up to 28,600 thousand euros through the issue of up to 11,000,000 new no-par value shares ("Conditional Capital 2017"). The conditional capital increase will only be executed to the extent that

- the creditors / owners of option and / or conversion rights arising from option and/or convertible bonds issued up to June 6, 2022 by the company or a domestic or foreign incorporated company in which the company has a direct or indirect majority stake, pursuant to the authorization resolution of the Annual General Meeting dated June 7, 2017, exercise their option or conversion rights and / or
- the creditors of the issued convertible bonds obliged to exercise their conversion rights which were issued by the company or a domestic or foreign incorporated company in which the company has a direct or indirect majority stake, on the basis of the resolution of the Annual General Meeting on June 7, 2017, fulfill their conversion obligation by June 6, 2022 and/or tenders for shares are issued

and neither are treasury shares used nor payment made in cash. The new shares participate in profits from the start of the fiscal year for which, on the date of their issue, no resolution has yet been passed by the Annual General Meeting in respect of the appropriation of the accumulated profit.

The Executive Board is authorized, with the consent of the Supervisory Board, to specify additional details on the issuance of the conditional capital increase. If the authorization to issue option and/or convertible bonds to the exclusion of subscription rights is exercised, this authorization is limited in the sense that the pro rata amount of nominal capital corresponding to those shares that must be issued after exercising conversion and/or option rights/obligations may not account for more than 20 percent of nominal capital existing at the time this authorization takes effect or – if the figure is lower – at the time use is made of the authorization. This 20 percent limit also applies to the sale of treasury shares that are excluded from subscription rights during the period of this authorization, and to shares issued during the period of this authorization under authorized capital and for which subscription rights are excluded.

The Executive Board is authorized to set out the further details relating to the increase in conditional capital (e.g. terms of the bonds, interest rate, form of interest, specific period, denomination, issue price, option / conversion price, option / conversion period) in the bond terms and conditions.

Reserves

Capital reserve. The capital reserve contains the adjustments recognized within the framework of the first-time adoption of IFRS as well as the differences resulting from the capital consolidation being offset against reserves up to December 31, 2002.

Other reserves. A component of other reserves is retained earnings realized in the past by companies included in the consolidated financial statements less dividends paid.

Other reserves also contain value adjustments to be accounted for outside of profit or loss for

- equity instruments that are valued outside profit or loss at fair value in other comprehensive income,
- cash flow hedges,
- accumulated foreign currency exchange differences and
- actuarial gains / losses arising from the valuation of pensions and similar obligations.

In the 2020 fiscal year, the changes in value for equity instruments valued outside profit or loss totaled 1,375 thousand euros (prior year: 977 thousand euros). The applicable income taxes totaled 410 thousand euros (prior year: minus 292 thousand euros). The effective portions of the change in the value of derivatives to be taken into account outside of profit or loss within the framework of the cash flow hedges are recognized at minus 3,987 thousand euros (prior year: minus 169 thousand euros) less applicable income taxes in the sum of 1,200 thousand euros (prior year: 72 thousand euros). Accumulated foreign currency exchange differences encompass the effects arising from foreign currency conversions of the separate financial statements of subsidiaries whose functional currency deviates from that of the Group, as well as effects arising from foreign currency conversions of assets and liabilities held in foreign currencies in the total sum of minus 11,328 thousand euros (prior year: 8,353 thousand euros). The applicable income taxes changed by 1,333 thousand euros (prior year: minus 1,193 thousand euros).

Actuarial gains arising from the valuation of pensions are recognized in the sum of minus 2,096 thousand euros (prior year: 6,704 thousand euros). The applicable income taxes totaled 441 thousand euros (prior year: minus 1,466 thousand euros).

In the 2020 fiscal year the change in income taxes recognized outside of profit or loss led to an increase in the reserves in the total sum of 985 thousand euros (prior year: reduction of 2,879 thousand euros).

Treasury Shares

On the basis of a resolution passed by the Annual General Meeting on June 5, 2018, the Executive Board is authorized up to June 4, 2023 to purchase treasury no-par value shares not exceeding a proportion of ten percent of the nominal capital existing at the time the resolution is adopted or – if this amount is lower – of the nominal capital existing at the time the resolution is exercised for purposes other than trading in treasury shares. The purchased treasury shares together with treasury shares that the entity had already purchased and still holds (including the attributable shares in accordance with §§ 71a ff. AktG [German Stock Corporation Act]) may not exceed 10 percent of the share capital of the entity. The authorization may be exercised in whole or in part, on a one-off or repeat basis and for one or more authorized purposes. The purchase and sale of treasury shares may be exercised by the entity or, for specific authorized purposes, also by dependent companies, by companies in which the entity holds a majority interest, or by third parties for its or their account. At the decision of the Executive Board, acquisition is by purchase, subject to compliance with the principle of equal treatment (§ 53a of the Stock Corporation Act), on the stock exchange or by means of a public offering or a public invitation to the shareholders to submit an offer for sale.

For the purpose of protecting shareholders against a dilution of their shares, the proposed resolution expressly provides for a restriction of the use of acquired treasury shares in such a way that the total of the acquired shares together with shares issued or sold by the Company during the term of this authorization under another authorization to the exclusion of shareholders' subscription rights or which enable or oblige the subscription of shares is limited to a notional interest in the nominal capital of no more than a total of 20 percent of the nominal capital at the time the authorization becomes effective or – if the following value is lower – at the time this authorization is exercised.

Further details regarding the buyback of treasury shares are described in agenda item 9 in the invitation to the 2018 Annual General Meeting, accessible to the general pubic on our website at www.jenoptik.com under the heading Investors/Annual General Meeting. As of December 31, 2020, the company had no treasury shares.

5.17 Non-controlling interests

This item in the statement of financial position contains reconciliation items for shares of non-controlling shareholders in the capital to be consolidated, arising from the capital consolidation, as well as the profits and losses allocated to them.

The increase is attributable in particular to the acquisition of TRIOPTICS (see section "Corporate acquisitions" from page 167).

5.18 Provisions for pensions and similar obligations

Provisions for pension obligations are set aside on the basis of pension plans for retirement, disability and survivor benefit commitments and exist in Germany and Switzerland. In addition, there are commitments in France to one-off payments on retirement which will be shown for the first time in 2020 under provisions for pensions and similar obligations. In the prior year these were shown under other non-current provisions. Additional pension commitments were taken on in 2020 through the acquisition of TRIOPTICS.

The benefits provided by the Group vary according to the legal, tax, and economic circumstances of the respective country and, as a rule, depend on the duration of employment and on the remuneration of the employee on commencement of retirement. The existing pension plans in Germany are closed, with the exception of the reinsured group provident fund.

Within the Group, the occupational pension provision is provided both on the basis of defined contribution as well as defined benefit plans. In the case of defined contribution plans, the company pays contributions in accordance with statutory or contractual provisions, or voluntarily makes contributions to public or private pension insurers. Upon payment of the contributions, the company has no further benefit obligations.

Defined benefit plans

Most retirement schemes within the Group are based on defined benefit plans, wherein a distinction is made between pension schemes financed through provisions or externally financed pension schemes.

The company is exposed to various risks in conjunction with defined benefit plans. Along with general actuarial risks such as longevity risks and the risk of changes in interest rates, the company is exposed to foreign currency exchange as well as investment risks.

Pension plans in the form of a reinsured group provident fund are treated as defined benefit plans due to the ongoing low interest rate phase and the associated claim risk arising from the subsidiary liability.

In accordance with IAS 19, pension provisions for the benefit commitments are determined in accordance with the projected unit credit method. In this context, the future obligations are valued on the basis of benefit claims acquired pro rata as of the balance sheet date, taking into account trend assumptions for the valuation parameters which affect the level of benefits. All benefit schemes require actuarial calculations.

Jenoptik determines the net interest expense (net interest income) by multiplying the net liability (net asset) at the commencement of the period by the underlying interest rate on commencement of the period, used for discounting the benefit-oriented gross pension obligation.

The actuarial effects cover, on the one side, the actuarial profits and losses arising from the valuation of the benefit-oriented gross pension obligation and on the other, the difference between the actual yield realized on plan assets and the typical yield assumed on commencement of the period.

The benefit obligations of the Group included 1,202 entitled persons, including 428 active employees, 177 former employees as well as 597 retirees and survivors.

The assets held by the Mitarbeitertreuhand e.V., Jena, and as a result of a restructuring in 2020, also by the JENOPTIK Pensiontreuhänder Verein e.V., Jena, will be offset against the pension obligations in accordance with IAS 19 as Plan Assets. The pension obligations of JENOPTIK Industrial Metrology Switzerland SA, JENOPTIK Advanced Systems GmbH, Trioptics GmbH as well as the commitments via the group provident fund, are also covered by means of plan assets and are accordingly shown as a net amount. These plan assets are primarily managed by AXA Lebensversicherung AG and AXA Winterthur, Switzerland.

The change in the defined benefit obligations (DBO) is shown as follows:

in thousand euros	2020	2019
DBO on 1/1	**79,964**	**73,644**
Foreign currency exchange effects	53	256
Current service cost	593	524
Contributions to the pension plans	789	612
Thereof by employees	789	612
Interest expenses	671	1,177
Past service expenses	0	135
Actuarial gains (-) and losses (+)	2,602	5,949
Empirical gains and losses	−840	−251
Changes from demographic assumptions	42	−1,080
Changes from financial assumptions	3,400	7,280
Changes in the scope of consolidation	202	0
Other changes	804	0
Pension payments	−2,470	−2,332
DBO at 31/12	**83,207**	**79,964**

Actuarial losses resulting from the change in financial assumptions arose in particular as a result of the further reduction in the discount rate in 2020.

Other changes relate to the reclassification of pension commitments in France arising from other non-current provisions.

The effects of the expense recognized in the statement of income are summarized as follows:

in thousand euros	1/1–31/12/2020	1/1–31/12/2019
Current service costs	593	659
Net interest costs	264	584
Total expenses	**857**	**1,243**

The current and past service expenses are included in the personnel expenses costs of the functional areas. The interest charged on the obligation as well as the interest received on plan assets are recorded in the interest result.

The changes in the plan assets are as follows:

in thousand euros	2020	2019
Plan assets as at 1/1	**48,320**	**36,304**
Foreign currency exchange effects	24	171
Interest income from plan assets	407	592
Return on plan assets less interest income	506	12,572
Contribution	912	740
Employers	123	129
Employees	789	612
Changes in the scope of consolidation	−63	0
Administrative expenses	−17	−16
Pension payments	−2,058	−2,043
Plan assets at 31/12	**48,031**	**48,320**

The yield from the plan assets in the fiscal year 2020 was determined in accordance with the discounting factor for calculation of the DBO for the prior year, at 407 thousand euros (prior year: 592 thousand euros). The actual yield from the plan assets was 913 thousand euros (prior year: 13,164 thousand euros), with the valuation of a shareholding in a property-owning limited partnership in particular having a significant positive effect in the prior year.

The net obligation as of the balance sheet date is as follows:

in thousand euros	31/12/2020	31/12/2019
Present value of the obligation covered by the fund	76,974	74,321
Plan assets	−48,031	−48,320
Net liability of the obligation covered by plan assets	28,943	26,001
Net liability of the obligation not covered by plan assets	6,235	5,643
Total	**35,178**	**31,643**

The portfolio structure of the plan assets is as follows:

in TEUR	31/12/2020	31/12/2019
Insurance contracts	21,033	20,098
Stocks and other securities	19,892	9,305
Cash equivalents	8,971	3,337
Investments	85	15,126
Loans rendered (loans and receivables)	0	2,330
Other assets and liabilities	−1,950	−1,875
Total	**48,031**	**48,320**

The insurance contracts in the sum of 14,337 thousand euros relate to pension insurance policies with AXA Lebensversicherung AG. The insurance company's investments were mainly in equities and investment assets, bearer bonds and fixed-interest bearing securities, as well as other loan receivables. There are also existing insurance contracts in the sum of 5,533 thousand euros as a result of the pension plan of AXA Fondation LPP (Switzerland). Its assets are mainly invested in debt and equity instruments as well as real estate.

There is an active market for the stocks and other securities held in plan assets. The decrease in investments is the result of an adjustment to the fair value valuation following a profit distribution within the plan assets.

Other liabilities relate to repatriation obligations due to pension payments from the plan assets made in 2020 to JENOPTIK AG as well as JENOPTIK Advanced Systems GmbH.

The key actuarial assumptions are shown in the following table. Where applicable, the above-mentioned assumptions allow for anticipated inflation.

in percent	2020	2019
Discount rate		
Germany	0.60	0.90
Switzerland	0.00	0.25
France	0.60	n/a
Future increases in salary		
Switzerland	1.50	1.50
France	2.00	n/a
Future increases in pension		
Germany	1.57	1.56

n/a = not applicable

Due to the structure of the existing pension commitments or the status of beneficiaries, assumptions regarding the amount of future salary increases in Germany have no influence on the DBO.

Actuarial gains or losses are the result of changes in pension beneficiaries and deviations from actual trends (e.g. increases in income or pensions) vis-á-vis calculation assumptions. In accordance with the regulations stated in IAS 19, this amount is offset against other comprehensive income in equity.

A change in the key actuarial assumptions as of the balance sheet date would influence the DBO as follows:

	Change in the DBO	
in thousand euros	Increase	Reduction
Discount rate – change by 0.5 percentage points	−5,664 (−5,432)	6,487 (6,138)
Expected salary increases – change by 1.0 percentage points	359 (294)	−345 (−273)
Expected pension increases – change by 1.0 percentage points	8,821 (8,646)	−6,470 (−6,328)
Mortality rates – change by 1 year	4,632 (4,191)	−4,583 (−4,166)

The figures in brackets relate to the prior year.

The sensitivity analysis shows the change in a DBO in the event of a change in an assumption. Since the changes do not have a straight-line effect on the calculation of DBO due to actuarial effects, the cumulative change in the DBO resulting from changes in a number of assumptions cannot be directly determined.

As of December 31, 2020, the weighted average remaining service period was 9 years and the weighted average remaining maturity of the obligation was 15 years.

The financing of the pension plans of JENOPTIK Advanced Systems GmbH, Wedel, and individual beneficiaries of JENOPTIK SSC GmbH, Jena, is performed by using a CTA model. The pension plan of JENOPTIK Industrial Metrology Switzerland SA provides for risk participation by the beneficiaries on transfer to retirement. In this context, the pension plan is financed by contributions from both the employer and the employee.

The anticipated pension payments arising from the pension plans as of December 31, 2020 for the following fiscal year are in the sum of 2,841 thousand euros (prior year: 2,882 thousand euros) and for the subsequent four fiscal years a total of 12,900 thousand euros (prior year: 12,110 thousand euros).

Defined contribution plans

Within the framework of the defined contribution plans, expenses for 2020 totaled 20,875 thousand euros (prior year: 21,781 thousand euros), this figure including contributions to statutory pension insurance providers in the sum of 16,968 thousand euros (prior year: 16,153 thousand euros).

5.19 Tax provisions

in thousand euros	31/12/2020	31/12/2019
Provisions for income taxes	2,624	6,443

Details on income tax expenses are provided in Note 4.11 from page 182.

5.20 Other provisions

The development of other provisions is shown in the table below.

Key items in the personnel provisions relate to performance premiums, profit sharing, and similar commitments, as well as to the share-based payments for the Executive Board and some senior management personnel. Personnel provisions also include anniversary bonuses in the sum of 5,094 thousand euros (prior year: 4,159 thousand euros) and partial retirement obligations in the sum of 1,696 thousand euros (prior year: 2,171 thousand euros). Actuarial expert opinions were obtained for the partial retirement obligations with the assumption of income increasing at 2.94 percent (prior year: 2.69 percent). The amount of the liability for top-up payments already earned as of December 31, 2020 was 838 thousand euros (prior year: 815 thousand euros).

The provision for guarantee and warranty obligations included expenses for individual guaranty cases as well as for flat-rate warranty risks. The calculation of the provision for flat-rate warranty risks is based on empirical values which were determined as a guarantee cost ratio of revenue on a company or product group-specific basis and applied to revenues which are liable to guarantees. The amounts that were reversed in the 2020 fiscal year chiefly comprise guarantee and warranty provisions for specific individual cases for which the underlying obligations no longer existed as a result of agreements with customers for remedial action.

The provision for pending losses essentially includes the liability overhang for individual customer projects and was set aside in the amount of the difference between anticipated unavoidable costs and economic benefit. The unavoidable costs take into account all costs directly related to the performance of the contract but not any general administrative and selling expenses.

Provisions for price adjustments existed for customer contracts that were subject to the risk of subsequent changes in selling prices. Additions and reversals were made to revenue.

Provisions for restructuring include cost-cutting and efficiency improvement measures in the Light & Production division which were required mainly as a result of the structural shift in the automotive industry to electro-mobility and the ongoing COVID-19 pandemic. In addition, provisions for restructuring measures were set aside in the VINCORION division for process and structural streamlining to achieve the desired product focusing and independence.

Other provisions included, amongst others, provisions for claims for damages. Other provisions also made allowance for numerous identifiable specific risks as well as contingent liabilities which were accounted for in the amount of the best possible estimate of the settlement sum. Additions in the 2020 fiscal year included, among others, new indemnification obligations as well as expenses arising from decommissioning obligations.

The anticipated claims by maturity are shown below:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	2020
Personnel	16,382	4,410	3,099	23,891
Guarantee and warranty obligations	17,700	4,654	0	22,353
Impending losses	1,028	40	0	1,068
Price adjustments	539	936	0	1,475
Restructuring	11,898	0	0	11,898
Others	4,937	1,312	2,587	8,836
Total	**52,482**	**11,352**	**5,686**	**69,521**

in thousand euros	Balance as at 1/1/2020	Changes in the scope of consolidation	Foreign currency exchange effects	Additions	Discounting	Utilization	Reversals	Balance as at 31/12/2020
Personnel	32,154	3,838	−186	13,461	−59	−22,014	−3,302	23,891
Guarantee and warranty obligations	24,310	392	−59	11,368	0	−7,404	−6,254	22,353
Impending losses	1,596	0	−5	537	0	−70	−990	1,068
Price adjustments	1,834	0	0	101	0	0	−459	1,475
Restructuring	1,345	0	−6	11,640	0	−607	−475	11,898
Others	8,513	772	−121	3,077	14	−1,581	−1,838	8,836
Total	**69,751**	**5,002**	**−377**	**40,184**	**−46**	**−31,676**	**−13,318**	**69,521**

5.21 Share-based payments

As of December 31, 2020, the Jenoptik Group had at its disposal share-based remuneration instruments in the form of virtual shares for both Executive Board members and some senior management personnel. In this context, a distinction must be drawn between Long Term Incentives of the Executive Board remuneration system that was applicable for Hans-Dieter Schumacher up to the end of 2017 and the remuneration system for some senior management personnel ("LTI") as well as the Performance Shares in accordance with the currently applicable Executive Board remuneration system.

The effects of the share-based payment with settlement in cash on the statement of income as well as the statement of financial position in the 2020 fiscal year, were as follows:

	Income statement		Statement of financial position	
in thousand euros	2020	2019	2020	2019
Virtual shares for the current year	−467	−429	467	429
Virtual shares for prior years	519	78	1,701	3,171
Total	**52**	**−352**	**2,168**	**3,600**

The valuation basis used for determining the fair value of the LTI is the daily and volume-weighted, average share price of JENOPTIK AG over the last twelve months. The fair value of the performance shares is determined on the basis of an arbitrage-free valuation according to the Black/Scholes option pricing model.

Payment for the virtual shares granted to the Executive Board is generally made at the end of their four-year, contractually-defined term. However, this only applies to the performance shares if multi-annual targets have been achieved on completion of the term. Also in the event of the departure of a member of the Executive Board before the end of the term, the LTI is paid out early in cash. In the event of a departure, performance shares will only be valued, allocated and then paid out at the end of the respective performance period, depending on whether the targets have been achieved. In the 1st quarter 2020 Performance Shares in a total of 32,620 units were allocated provisionally to the members of the Executive Board. The virtual shares allocated for the members of the Executive Board for fiscal years 2016 to 2020 were valued at the fair value as of the 2020 balance sheet date and recognized in provisions.

The development of the Executive Board members' virtual shares is shown in the following tables:

in units	Number for 2020	Number for 2019
Dr. Stefan Traeger (Chairman of the Executive Board)		
1/1	37,998	25,486
Granted for period	18,933	12,512
31/12	56,931	37,998
Hans-Dieter Schumacher		
1/1	76,259	66,166
Granted for period	13,687	9,384
Granted for protection of existing shares in case of dividend payment*	186	709
Paid out*	−22,362	0
31/12	67,770	76,259

* according to the executive compensation scheme valid until 2017

Of the total expenses arising from share-based payments, recognized in fiscal year 2020 for the current fiscal year and prior years, Dr. Stefan Traeger accounted for 77 thousand euros (prior year: 241 thousand euros) whilst Hans-Dieter Schumacher accounted for income in the sum of 99 thousand euros (prior year: expenses 15 thousand euros).

For all further disclosures, we refer to the chapter on Corporate Governance in the Remuneration Report which forms part of the Combined Management Report.

Virtual shares are also granted to some members of the top management. The number of virtual shares is determined on the basis of target achievement as well as on the volume-weighted average closing price of the Jenoptik share over the last 12 months of the reference year. Payment is made at the end of the fourth subsequent year after allocation, based on the volume-weighted average closing price of the Jenoptik share in the full fourth subsequent year. In the event of a departure before the end of the term, the virtual shares may be forfeit, depending on the reasons for the departure.

The development of these virtual shares is shown in the following table:

in units	Number for 2020	Number for 2019
Members of the Top Management		
1/1	60,347	75,834
Granted for the period	12,901	11,174
Granted for adjusted achievement of prior year objectives	– 3,514	1,690
Claims expired	– 4,049	0
Paid out	– 30,557	– 28,351
31/12	35,128	60,347

5.22 Financial liabilities

The maturity periods for the financial liabilities are shown in the table below:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Liabilities to banks	118,565 (26,285)	82,133 (72,182)	8,552 (0)	209,250 (98,467)
Liabilities arising from leases	12,306 (10,712)	32,828 (33,974)	14,897 (16,405)	60,031 (61,091)
Total	**130,871** **(36,996)**	**114,961** **(106,156)**	**23,449** **(16,405)**	**269,281** **(159,558)**

The figures in brackets relate to the prior year.

Liabilities to banks with a maturity of up to one year consist mainly of a money market draw-down under the syndicated loan agreement in the sum of 110,000 thousand euros due in 2021.

Liabilities to banks with a term of one to five years consist mainly of debenture bonds with a nominal value of 69,000 thousand euros.

Liabilities to banks with a term of more than five years mainly relate to real estate financing in Germany.

As at the balance sheet date, the syndicated loan was utilized in the form of money market loans in the sum of 110,000 thousand euros and guarantees in the sum of 10,886 thousand euro (prior year: 13,874 thousand euros). Taking into account the additional lines of financing not fully utilized, as of the balance sheet date, 417,319 thousand euros (prior year: 222,204 thousand euros) of the guaranteed, existing lines of credit were unused.

5.23 Other non-current liabilities

Other non-current liabilities comprise the following:

in thousand euros	31/12/2020	31/12/2019
Liabilities from aquisitions	27,159	0
Non-current financial liabilities to clients	495	990
Derivatives	84	1,264
Non-current trade payables to third parties	826	0
Other non-current financial liabilities	980	0
Total	**29,545**	**2,254**

Liabilities arising from corporate acquisitions are the result of conditional purchase price components of the acquisitions of INTEROB and TRIOPTICS, as well as a final payment for the contractually agreed acquisition of the remaining 25 percent of the shares in Trioptics GmbH.

Further information on derivatives are provided in Note 8.2 from page 216.

5.24 Current trade payables

This item includes:

in thousand euros	31/12/2020	31/12/2019
Trade payables to third parties	89,681	83,618
Trade payables to non-consolidated associates and investments	66	113
Total	**89,747**	**83,730**

5.25 Other current financial liabilities

This item includes:

in thousand euros	31/12/2020	31/12/2019
Liabilities from acquisitions	66,621	771
Other liabilities to investments	2,800	1,700
Liabilities from interest payments	1,364	815
Liabilities from remuneration for the Supervisory Board	694	759
Derivatives	439	3,661
Payments received from sales of receivables	312	3,179
Other current financial liabilities	3,098	1,634
Total	**75,327**	**12,520**

As of December 31, 2020, liabilities from acquisitions include agreed variable purchase price components arising from the acquisition of TRIOPTICS. In the prior year, liabilities included conditional purchase price payment obligations arising from the acquisition of the OTTO Group.

The item derivative financial instruments is explained in more detail under Note 8.2 from page 216.

The payments received from sales of receivables in the sum of 312 thousand euros resulted from payments by customers on trade receivables that were sold under a genuine and confidential factoring program (see the disclosures in Section 5.10 Current trade receivables from page 194).

Liabilities to investments included cash pool liabilities to HILLOS GmbH now recognized in the consolidated financial statements using the at-equity method (prior year: 1,700 thousand euros). Standard market interest rates were agreed for liabilities from not proportionality consolidated share.

5.26 Other current non-financial liabilities

This item includes:

in thousand euros	31/12/2020	31/12/2019
Liabilities from other taxes	8,394	4,974
Liabilities to employees	6,888	7,669
Liabilities from social security	1,624	1,714
Liabilities to employer's insurance association	1,335	1,312
Accruals	467	343
Miscellaneous current non-financial liabilities	389	410
Total	**19,098**	**16,423**

Liabilities to employees included, amongst others, vacation entitlements and flextime credits.

Liabilities from other taxes essentially comprise liabilities arising from value added tax and real estate transfer tax.

5.27 Contract liabilities

Under IFRS 15, this statement of financial position item constitutes the obligations of the Group , to transfer goods or services to a customer for which it, the Group, has received a consideration in return from the customer or for which a requested advance payment is due.

The status of the contract liabilities as of the balance sheet date of December 31, 2020 is shown in the table below:

in thousand euros	31/12/2020	31/12/2019
Contract liabilities	**46,274**	**43,882**
Realization within one year	44,768	41,996
Realization within more than one year	1,506	1,886

The non-current portion essentially includes advance payments from customers of VINCORION for long-running contracts. There were no significant financing components.

The transaction price for all customer orders that have not yet been completed in full is shown as the order backlog. This shows the following due dates:

in thousand euros	31/12/2020	31/12/2019
Transaction price of performance obligations not yet completely fulfilled	**460,064**	**466,121**
Realization within the next fiscal year	360,946	317,410
Realization within the next but one fiscal year	54,355	78,715
Realization in later fiscal years	44,764	69,996

6 Disclosures on Cash Flows

Liquid funds comprise the cash and cash equivalents recognized in the statement of financial position in the sum of 63,405 thousand euros (prior year: 99,025 thousand euros) after taking into account an impairment loss of 78 thousand euros (prior year: 123 thousand euros) as provision for a default risk. Liquid funds are defined as the sum of cash on hand and demand deposits at banks with an initial maturity of less than three months.

The statement of cash flows explains the flow of payments, divided between the inflows and outflows of cash from the current business, from investing and financing activities. Changes in the statement of financial position items used for preparing the statement of cash flows cannot be directly derived from the statement of financial position because the effects arising from the foreign currency conversion and changes in the group of entities consolidated are non-cash transactions and are therefore eliminated. Cash flows from operating activities are indirectly derived from earnings before tax. Earnings before tax are adjusted for non-cash expenses and income. The cash flows from operating activities are determined by taking into account the changes in working capital, provisions and other operating statement of financial position items.

The cash flows from operating activities in the fiscal year just past totaled 89,748 thousand euros (prior year: 108,892 thousand euros). The lower operating result was the main reason for the change compared to the previous year.

Cash flows from investing activities totaled minus 188,443 thousand euros (prior year: minus 54,381 thousand euros), and in fiscal year 2020 were characterized primarily by the acquisition of TRIOPTICS and INTEROB. More detailed information on the investments is provided in the section Earnings, Financial and Asset Position in the Combined Management Report from page 102.

In addition, the cash flows from investing activities included net payments from current cash deposits in the sum of 69,900 thousand euros. By contrast, in the prior year, net payments to cash deposits in the sum of 9,741 thousand euros had a negative impact on the cash flow.

Cash flows from financing activities totaled 63,716 thousand euros (prior year: minus 46,127 thousand euros). Cash outflows from the dividends paid in the sum of 8,426 thousand euros (prior year: 20,033 thousand euros), were lower than in the prior year as a result of the decreased dividend payment compared with 2019 of 0.13 euros per share (prior year: 0.35 euros per share). Total dividends paid in the sum of 8,426 thousand euros included dividends paid to minority shareholders in the sum of 985 thousand euros. The proceeds from issuing loans in the amount of 165,000 thousand euros are in particular attributable to taking out loans for the acquisition of TRIOPTICS. The repayments of bonds and loans in the year under review essentially included the cash outflows arising from the repayment of a financing for the acquisition of TRIOPTICS in the sum of 55,000 thousand euros, plus partial the scheduled repayment of a tranche of the debenture bond in the sum of 21,500 thousand euros. Payments for leases totaled 12,259 thousand euros (prior year: 9,875 thousand euros). The change in the group financing included in particular payments from or to affiliated, non-consolidated companies and investments.

The changes in financial liabilities that will lead to cash flows from financing activities in the future, are shown in the following table:

The non-cash additions and disposals include changes in the scope of consolidation in the amount of 21,889 thousand euros.

The reconciliation shown above exclusively takes into account financial debt, consequently the payments collected from the original customer and forwarded to the Factor in the context of factoring, are not taken into account (see section "Current trade receivables" from page 194). In the statement of cash flows these are included as a net amount in the item repayment of bonds and loans amounting 3,012 thousand euros (deposits prior year: 3,347 thousand euros). Information regarding the allocation of free cash flows to the segments is provided in the Segment Report from page 119.

Additional information on the consolidated statement of cash flows is provided in the Combined Management Report in the section Financial Position.

			Non cash-effective change					
in thousand euros	Balance as of 1/1/2020	Cash-effective change	Foreign currency exchange effects	Addition/ Disposal	Adjustment as a result of IFRS 16	Change in the fair value	Change in maturity	Balance as of 31/12/2020
Non-current financial debt	122,562 (111,405)	121,771 (1)	−895 (532)	20,613 (5,617)	0 (50,528)	100 (121)	−125,740 (−45,644)	138,410 (122,562)
Non-current liabilities to banks	72,182 (108,227)	121,823 (0)	−86 (87)	12,902 (0)	0 (0)	100 (170)	−116,236 (−36,302)	90,685 (72,182)
Non-current liabilities from leases	50,380 (3,178)	−52 (1)	−808 (446)	7,711 (5,617)	0 (50,528)	0 (−49)	−9,504 (−9,342)	47,726 (50,380)
Current financial debt	36,996 (10,123)	−39,405 (−31,132)	−299 (255)	7,804 (3,947)	0 (8,352)	35 (−192)	125,740 (45,644)	130,871 (36,996)
Current liabilities to banks	26,285 (9,294)	−27,198 (−19,552)	−149 (198)	5,821 (0)	0 (0)	35 (43)	113,771 (36,302)	118,565 (26,285)
Current liabilities from leases	10,712 (829)	−12,207 (−9,875)	−150 (57)	1,982 (2,242)	0 (8,352)	0 (−235)	11,969 (9,342)	12,306 (10,712)
Total	**159,558** **(121,528)**	**82,366** **(− 29,426)**	**−1,194** **(787)**	**28,417** **(7,859)**	**0** **(58,880)**	**134** **(−70)**	**0** **(0)**	**269,281** **(159,558)**

The figures in brackets relate to the prior year.

7 Disclosure on the Segment Report

The segments are shown in accordance with the regulations of IFRS 8 "Operating Segments".

IFRS 8 follows the management approach. Accordingly, the external reporting is carried out for the attention of the chief operating decision makers on the basis of the internal group organizational and management structures as well as the internal reporting structure. The Executive Board analyzes the financial information using the key performance indicators which serve as a basis for decisions on allocating resources and assessing performance. The accounting policies and principles for the segments are the same as those described for the Group in the basic accounting principles.

More information on the organizational structure of the Jenoptik Group is provided in the Combined Management Report in the section "General group information" from page 78.

The Light & Optics division is a global OEM supplier of solutions and products based on photonic technologies. Jenoptik offers a wide range of products and services in this field, combining comprehensive expertise in optics, laser technology, digital imaging, optoelectronics, and software. Jenoptik offers optical measuring and manufacturing systems for quality control of lenses, objectives and camera modules under the TRIOPTICS brand. The systems, modules, and components help customers to tackle the challenges they face using photonic technologies. Customers include plant and machinery manufacturers, equipment manufacturers in areas such as semiconductor equipment, laser material processing, medical technology and life science, industrial automation, automotive and mobility as well as security and research institutions.

The Light & Production division is a global specialist in the optimization of manufacturing processes, and increasingly also offers integrated solutions (complex production lines utilizing a range of technologies) from a single source. With many years of experience and expertise in industrial metrology and optical inspection, modern laser-based material processing and highly flexible robotic-based automation, the division develops manufacturing solutions for customers in the automotive, aerospace and medical technology fields as well as other manufacturing industries.

The Light & Safety division operates in three areas of business: traffic law enforcement, civil security and road user charging. Here, Jenoptik develops, produces, and sells various components, systems, and services used by public sector customers to monitor compliance with applicable road traffic regulations and consequently make the world's roads safer.

VINCORION develops, produces, and sells mechatronic products for civil and military markets, in particular for security and defense technology, aviation as well as rail and transport industries. Its portfolio ranges from individual assemblies to solutions for customers which will be integrated into their systems. The division specializes in energy systems, drive and stabilization systems as well as aviation systems.

The activities of the holding company (Corporate Center) and real estate management are summarized under Others.

The "Consolidation" column comprises the business relationships to be consolidated between the segments as well as the required reconciliations.

The business relationships between the entities of the Jenoptik Group segments are fundamentally based on prices that are also agreed with third parties.

Revenue in excess of 10 percent of the total revenue of the Jenoptik Group was generated with one customer of the Light & Optics division (104,156 thousand euros; prior year: 103,713 thousand euros). There were no other customer relationships with individual customers whose share of revenue is of significant importance when measured against group revenue.

The analysis of revenue by region is conducted according to the country in which the customer has its legal seat.

7.1 Segment report

in thousand euros	Light & Optics	Light & Production	Light & Safety	VINCORION	Other	Consolidation	Group
Revenue	318,950 (351,941)	179,053 (228,990)	114,034 (108,696)	151,740 (164,858)	51,024 (47,338)	– 47,605 (– 46,587)	767,196 (855,235)
of which intra-group revenue	957 (1,904)	103 (83)	26 (15)	10 (60)	46,509 (44,525)	– 47,605 (– 46,587)	0 (0)
of which external revenue	317,993 (350,037)	178,950 (228,907)	114,008 (108,681)	151,730 (164,798)	4,516 (2,812)	0 (0)	767,196 (855,235)
Germany	52,114 (71,655)	50,749 (49,029)	34,670 (29,561)	72,633 (80,919)	4,516 (2,812)	0 (0)	214,681 (233,977)
Europe	119,345 (134,794)	35,290 (36,509)	32,883 (31,187)	38,567 (43,560)	0 (0)	0 (0)	226,085 (246,050)
of which Great Britain	1,138 (1,646)	4,303 (3,614)	19,500 (19,789)	7,265 (4,368)	0 (0)	0 (0)	32,207 (29,417)
of which the Netherlands	96,344 (93,861)	126 (69)	3,184 (2,949)	194 (1,066)	0 (0)	0 (0)	99,849 (97,944)
Americas	63,606 (77,045)	68,845 (106,483)	28,188 (23,385)	34,869 (32,817)	0 (0)	0 (0)	195,508 (239,730)
of which the USA	61,118 (71,806)	39,839 (73,871)	20,753 (16,403)	34,569 (32,176)	0 (0)	0 (0)	156,278 (194,255)
of which Canada	2,454 (5,229)	21,755 (27,742)	7,139 (6,585)	300 (640)	0 (0)	0 (0)	31,648 (40,195)
Middle East/Africa	12,541 (14,221)	1,820 (915)	6,025 (16,508)	4,809 (6,606)	0 (0)	0 (0)	25,196 (38,251)
Asia/Pacific	70,415 (52,322)	22,245 (35,972)	12,242 (8,040)	853 (895)	0 (0)	0 (0)	105,755 (97,228)
of which China	24,168 (12,223)	16,900 (24,191)	373 (694)	104 (194)	0 (0)	0 (0)	41,545 (37,302)
of which Singapore	19,486 (27,017)	134 (117)	163 (543)	24 (108)	0 (0)	0 (0)	19,807 (27,785)
EBITDA	68,607 (69,848)	7,885 (25,784)	22,339 (18,810)	16,622 (24,159)	– 3,821 (– 4,650)	0 (20)	111,632 (133,972)
EBIT	52,125 (57,933)	– 4,806 (14,462)	15,196 (11,659)	9,681 (17,382)	– 12,891 (– 12,549)	7 (27)	59,312 (88,915)
Research and development expenses	– 19,191 (– 19,015)	– 7,154 (– 7,921)	– 13,083 (– 11,000)	– 4,249 (– 6,120)	– 125 (– 179)	148 (182)	– 43,655 (–44,052)
Free cash flow (before income taxes)	40,508 (57,101)	284 (19,491)	21,424 (11,301)	9,816 (1,035)	– 4,811 (– 11,993)	– 4,921 (307)	62,300 (77,242)
Working capital	114,270 (77,915)	66,903 (50,104)	12,064 (14,818)	82,914 (84,149)	– 7,795 (– 8,969)	– 227 (– 194)	268,130 (217,822)
Order intake (external)	339,505 (324,661)	157,844 (199,262)	92,314 (107,942)	145,230 (177,899)	4,516 (2,812)	0 (0)	739,408 (812,576)
Frame contracts	12,637 (12,386)	0 (0)	8,897 (12,615)	20,756 (24,916)	0 (0)	0 (0)	42,289 (49,916)
Assets	618,220 (273,204)	315,824 (274,235)	114,888 (114,993)	199,898 (192,443)	1,008,142 (887,458)	– 918,129 (– 659,000)	1,338,843 (1,083,333)

in thousand euros	Light & Optics	Light & Production	Light & Safety	VINCORION	Other	Consolidation	Group
Liabilities	260,309	228,261	71,187	147,658	266,200	– 324,164	649,452
	(121,585)	(200,162)	(99,142)	(145,579)	(160,814)	(– 299,393)	(427,889)
Capital expenditure for intangible assets, property, plant, and equipment and investment property	18,602	4,857	4,629	9,168	9,996	0	47,252
	(18,418)	(13,874)	(4,068)	(8,801)	(10,624)	(– 210)	(55,576)
Scheduled depreciation/amortization	– 16,101	– 12,509	– 7,143	– 6,942	– 8,191	7	– 50,879
	(– 10.667)	(– 11,322)	(– 7,151)	(– 6,778)	(– 7,899)	(7)	(– 43,809)
Impairment losses	– 672	– 183	0	0	– 879	0	– 1,733
	(– 1,248)	(0)	(0)	(0)	(0)	(0)	(– 1,248)
Number of employees on average excluding trainees	1,457	1,065	475	743	310	0	4,049
	(1,341)	(1,072)	(471)	(758)	(320)	(0)	(3,961)

EBITDA = Earnings before interest, taxes, depreciation and amortization
EBIT = Earnings before interest and taxes
The free cash flow (before income taxes) = cash flows from operating activities before payment of income taxes, less proceeds from and expenditure for intangible assets and property, plant, and equipment
The figures in brackets relate to the prior year.

7.2 Adjusted information by segment [1]

in thousand euros	Light & Optics	Light & Production	Light & Safety	VINCORION	Other	Consolidation	Group
Revenue [1]	318,950	179,053	114,034	151,740	51,024	−47,605	767,196
	(333,665)	(228,990)	(108,696)	(164,858)	(47,338)	(−46,499)	(837,048)
of which intra-group revenue [1]	957	103	26	10	46,509	−47,605	0
	(1,816)	(83)	(15)	(60)	(44,525)	(−46,499)	(0)
of which external revenue [1]	317,993	178,950	114,008	151,730	4,516	0	767,196
	(331,850)	(228,907)	(108,681)	(164,798)	(2,812)	(0)	(837,048)
Germany [1]	52,114	50,749	34,670	72,633	4,516	0	214,681
	(71,396)	(49,029)	(29,561)	(80,919)	(2,812)	(0)	(233,718)
Europe (without Germany) [1]	119,345	35,290	32,883	38,567	0	0	226,085
	(118,317)	(36,509)	(31,187)	(43,560)	(0)	(0)	(229,573)
Americas [1]	63,606	68,845	28,188	34,869	0	0	195,508
	(75,638)	(106,483)	(23,385)	(32,817)	(0)	(0)	(238,323)
Middle East / Africa [1]	12,541	1,820	6,025	4,809	0	0	25,196
	(14,221)	(915)	(16,508)	(6,606)	(0)	(0)	(38,251)
Asia / Pacific [1]	70,415	22,245	12,242	853	0	0	105,755
	(52,277)	(35,972)	(8,040)	(895)	(0)	(0)	(97,183)
EBITDA [2]	72,725	15,758	22,741	20,622	−1,146	0	130,699
	(71,695)	(25,784)	(18,810)	(24,159)	(−2,517)	(20)	(137,952)
EBIT [2]	56,623	3,066	15,598	13,681	−10,216	7	78,759
	(60,248)	(14,462)	(11,659)	(17,382)	(−10,415)	(27)	(93,363)
Free cash flow (before income taxes) [2]	44,135	156	21,817	9,816	−3,830	−4,921	67,173
	(57,101)	(19,491)	(11,301)	(1,035)	(−9,940)	(307)	(79,295)

EBITDA = Earnings before interest, taxes, depreciation and amortization
EBIT = Earnings before interest and taxes
The figures in brackets relate to the prior year.
[1] Prior-y without HILLOS GmbH
[2] Figures adjusted for structural and portfolio measures (see comments on page 104)

As a result of the decline in self-used production capacities by the partners, HILLOS GmbH qualifies as a joint venture (previously joint operation) from the 2020 fiscal year. The revenue contribution of HILLOS GmbH is therefore no longer recorded proportionately in the Jenoptik consolidated financial statements. In order to ensure comparability of the information, the prior year's figures have been adjusted for the revenue contributions from HILLOS GmbH.

As part of the planned strategic development of Jenoptik, the Executive Board has initiated a number of structural and portfolio measures. The aim of these measures is to accelerate growth and increase profitability in the medium and long term. In order to present these measures more transparently, EBITDA, EBIT and free cash flow are reported as adjusted figures for both the Group and the segments. The adjustments result from expenses and income as a result of site optimization / restructuring and cost reduction programs as well as costs in connection with M&A activities. For reasons of comparability, the values from the prior-y period have also been adjusted.

7.3 Reconciliation statements by segment

in thousand euros	Light & Optics	Light & Production	Light & Safety	VINCORION	Other	Group
EBITDA	68,607	7,885	22,339	16,622	– 3,821	111,632
	(69,848)	(25,784)	(18,810)	(24,159)	(–4,630)	(133,972)
EBITDA effect	– 4,118	– 7,873	– 402	– 4,000	– 2,675	– 19,068
	(–1,847)	(0)	(0)	(0)	(–2,133)	(–3,980)
Restructuring and site optimization	– 34	– 7,410	0	– 4,000	0	– 11,444
	(–1,847)	(0)	(0)	(0)	(0)	(–1,847)
Cost reduction measures	– 1,422	– 190	– 402	0	– 1,998	– 4,013
	(0)	(0)	(0)	(0)	(–80)	(–80)
M&A costs	– 2,662	– 273	0	0	– 677	– 3,611
	(0)	(0)	(0)	(0)	(–2,053)	(–2,053)
EBITDA adjusted	72,725	15,758	22,741	20,622	– 1,146	130,699
	(71,695)	(25,784)	(18,810)	(24,159)	(–2,497)	(137,952)
EBIT	52,125	– 4,806	15,196	9,681	– 12,884	59,312
	(57,933)	(14,462)	(11,659)	(17,382)	(–12,521)	(88,915)
EBIT effect	– 4,498	– 7,873	– 402	– 4,000	– 2,675	– 19,448
	(–2,315)	(0)	(0)	(0)	(–2,133)	(–4,448)
Restructuring and site optimization	– 414	– 7,410	0	– 4,000	0	– 11,824
	(–2,315)	(0)	(0)	(0)	(0)	(–2,315)
Cost reduction measures	– 1,422	– 190	– 402	0	– 1,998	– 4,013
	(0)	(0)	(0)	(0)	(–80)	(–80)
M&A costs	– 2,662	– 273	0	0	– 677	– 3,611
	(0)	(0)	(0)	(0)	(– 2,053)	(– 2,053)
EBIT adjusted	56,623	3,066	15,598	13,681	– 10,209	78,759
	(60,248)	(14,462)	(11,659)	(17,382)	(– 10,388)	(93,363)

The figures in brackets relate to the prior year.

The reported effects of the restructuring and site optimization include measures to reduce costs and increase efficiency, which were primarily necessary due to the structural shift in the automotive industry towards electromobility and the ongoing COVID-19 pandemic. Furthermore, the restructuring costs relate to measures in the VINCORION division to streamline processes and structures for the desired product focus and greater independence.

The cost reduction programs include consulting costs for a project to increase efficiency as well as individual personnel measures in the divisions.

The M&A costs essentially include the company acquisitions of INTEROB and TRIOPTICS described in the Annual Report (see section “Company acquisitions” from page 167).

7.4 Non-current assets by region

in thousand euros	31/12/2020	31/12/2019
Group	755,438	468,571
Germany	538,046	271,221
Europe	79,711	55,938
of which Great Britain	44,923	49,427
Americas	119,547	134,287
of which the USA	43,961	48,175
of which Canada	75,586	86,111
Asia / Pacific	18,134	7,125

Non-current assets comprise intangible assets, property, plant, and equipment, investment property, as well as non-current non-financial assets. The assets are allocated to the individual regions according to the countries in which the consolidated entities have their legal seat. The increase in Germany and the Asia / Pacific region is primarily attributable to the initial consolidation of the TRIOPTICS entities.

8 Other Disclosures

8.1 Capital management

The aim of Jenoptik's capital management is to maintain a strong capital base in order to retain the trust of the shareholders, creditors and capital markets, as well as to ensure the sustained, successful development of the company. The Executive Board monitors in particular the equity ratio, the development of cash flows as well as the net debt as part of the regular management reporting. In the event of significant deteriorations in the key parameters, alternative courses of action are worked out and the corresponding measures implemented.

As of the balance sheet date of December 31, 2020, the Jenoptik Group has an outstanding syndicated loan in the sum of up to 230,000 thousand euros as well as two debenture bonds totaling 69,000 thousand euros as its key financing. Further details on these are shown in the Notes under Point Liquidity risk (see page 219). With regard to the existing debenture bonds, no agreements have been concluded on adherence to specific financial indicators. Adherence to specific financial indicators in respect of gearing (gross financial debt to equity) and equity was agreed for the syndicated loan. These financial indicators were adhered to at all times in the fiscal year 2020.

Bridging finance in the sum of 300,000 thousand euros was concluded in the 2020 fiscal year and has not yet been utilized. This will serve as a backup line for the acquisition of TRIOPTICS but can also be used for other inorganic growth opportunities.

In addition to the syndicated loan, debenture bonds and bridging finance, the JENOPTIK Group utilizes to a lesser extent other sources of financing consisting of bilateral credit lines, lease and rental financing as well as factoring. The Jenoptik Group uses these instruments in order to actively control the development of the cash flow. Detailed information on the factoring is shown in Chapter "Current trade receivables (see page 194).

8.2 Financial instruments

General

Within the framework of its operating activities, the Jenoptik Group is exposed to credit, default, liquidity and market risks. The market risks include in particular risks of fluctuations in interest rates and foreign currency exchange rates.

Detailed information on the risk management and control of risks is shown in the Combined Management Report in the Risk and Opportunity Report (see page 133). Additional information on capital management is provided in the Economic Report in the chapter Financial Position (see page 111).

The risks described above impact on the financial assets and liabilities which are shown below.

Financial assets:

			Balance sheet valuation in accordance with IFRS 9		
in thousand euros	Valuation category in accordance with IFRS 9[1]	Carrying amounts 31/12/2020	Amortized costs	Fair value – through other comprehensive income	Fair value – through profit or loss
Financial investments					
Current financial investments (investments, stocks, bonds)	AC bzw. FVTPL	4,894 (69,661)	197 (69,661)		4,698 (0)
Shares in non-consolidated associates and investments	FVTOCI	841 (2,487)		841 (2,487)	
Shares in entities which are subject to the equity valuation	---[2]	13,410 (5,776)	13,410 (5,776)		
Loans and other financial investments	AC	2,084 (10)	2,084 (10)		
Trade receivables	AC	138,011 (136,881)	138,011 (136,881)		
Other financial assets					
Receivables from finance leases	---	192 (0)	192 (0)		
Derivatives with hedge relations					

in thousand euros	Valuation category in accordance with IFRS 9[1]	Carrying amounts 31/12/2020	Balance sheet valuation in accordance with IFRS 9: Amortized costs	Fair value – through other comprehensive income	Fair value – through profit or loss
Foreign exchange forward transactions/ foreign exchange swaps	---	1,956 (810)		1,956 (810)	
Derivatives without hedge relations					
Interest and currency swap	FVTPL	125 (79)			125 (79)
Foreign exchange forward transactions/ foreign exchange swaps	FVTPL	166 (953)			166 (953)
Other financial assets	AC	6,638 (4,252)	6,638 (4,252)		
Cash and cash equivalents	AC	63,405 (99,025)	63,405 (99,025)		
Total		**231,723 (319,935)**	**223,936 (315,606)**	**2,797 (3,297)**	**4,989 (1,032)**

The figures in brackets relate to the prior year.
[1] AC = Amortized costs
FVTPL = Fair value through Profit & Loss
FVTOCI = Fair value through other comprehensive income
[2] Valuation in accordance with IAS 28

Financial liabilities:

in thousand euros	Valuation category in accordance with IFRS 9[1]	Carrying amounts 31/12/2020	Balance sheet valuation in accordance with IFRS 9: Amortized costs	Fair value – through other comprehensive income	Fair value – through profit or loss	Valuation in accordance with IFRS 16
Financial debt						
Liabilities to banks	AC	209,250 (98,467)	209,250 (98,467)			
Liabilities from leases	---[2]	60,031 (61,091)				60,031 (61,091)
Liabilities from trade receivables	AC	90,573 (83,730)	90,573 (83,730)			
Other financial liabilities						
Contingent liabilities	FVTPL	16,595 (771)			16,595 (771)	
Derivatives with hedge relations						
Foreign exchange forward transactions/foreign exchange swaps	---[2]	385 (4,078)		385 (4,078)		
Derivatives without hedge relations						
Foreign exchange forward transactions/foreign exchange swaps	FVTPL	138 (847)			138 (847)	
Other financial liabilities	AC	86,928 (9,078)	86,928 (9,078)			
Total		**463,900 (258,062)**	**386,751 (191,275)**	**385 (4,078)**	**16,732 (1,618)**	**60,031 (61,091)**

The figures in brackets relate to the prior year.
[1] AC = Amortized costs
FVTPL = Fair value through Profit & Loss
FVTOCI = Fair value through other comprehensive income
[2] Recognized according to IFRS 16

The classification of the fair values for the financial assets and liabilities is taken from the following overview:

in thousand euros	Carrying amounts 31/12/2020	Step 1	Step 2	Step 3
Current financial investments	4,698 (0)	4,698 (0)	0 (0)	0 (0)
Shares in non-consolidated associates and investments	841 (2,487)	0 (0)	0 (0)	841 (2,487)
Derivatives with hedge relations (assets)	1,956 (810)	0 (0)	1,956 (810)	0 (0)
Derivatives without hedge relations (assets)	291 (1,032)	0 (0)	291 (1,032)	0 (0)
Contingent liabilities	16,595 (771)	0 (0)	0 (0)	16,595 (771)
Derivatives with hedge relations (liabilities)	385 (4,078)	0 (0)	385 (4,078)	0 (0)
Derivatives without hedge relations (liabilities)	138 (847)	0 (0)	138 (847)	0 (0)

The figures in brackets relate to the prior year.

Fair values available which are available as quoted market prices at all times, are allocated to level 1. Fair values determined on the basis of direct or indirect observable parameters, are allocated to level 2. Level 3 is based on measurement parameters that are not based upon observable market data.

The fair values of all derivatives are determined using the generally recognized cash value method. In this context, the future cash flows determined via the agreed forward rate or interest rate are discounted using current market data. The market data used in this context is taken from leading financial information systems, such as for example Refinitiv (formerly Reuters). If an interpolation of market data is applied, this is done on a straight-line basis.

The fair value of contingent liabilities is valued at the reporting date, taking into consideration the anticipated payment outflows, discounted at a period and risk-dependent interest rate.

The development of the financial assets and liabilities which are valued at fair value and assigned to Level 3, can be found in the table below:

in thousand euros	Shares in non-consolidated associates and investments	Contingent liabilities
Balance as at 1/1/2020	**2,487**	**771**
Additions	30	15,800
Disposals	– 313	– 374
Additions to scope of consolidation	22	0
Gains/losses recognized in the operating result	0	– 476
Gains/losses recognized in the financial result	0	874
Valuation outside profit/loss	– 1,375	0
Foreign currency exchange effects	– 10	0
Balance as at 31/12/2020	**841**	**16,595**

The additions to the contingent liabilities arise from the acquisition of the TRIOPTICS Group and INTEROB (see section "Corporate acquisitions" from page 167, for further details). Payment of these variable purchase price components arising from the acquisitions is expected to take place by 2023. Payment of the earn-out liabilities in connection with the acquisition of the OTTO Group was made in 2020. Fair value adjustments to contingent liabilities recorded through profit or loss are recognized in other operating income or expenses. Accumulated interest is recognized in the financial result

Credit and default risks

The credit or default risk is the risk of a customer or a contract partner of the Jenoptik Group failing to fulfill his contractual obligations. This results in both the risk of creditworthiness-related impairment losses to financial instruments as well as the risk of a partial or a complete default on contractually agreed payments.

Credit and default risks primarily exist for trade receivables. These risks are countered by active receivables management and, if required, taken into account by creating impairment provisions. In addition, the Jenoptik Group is exposed to credit and default risks for cash and cash equivalents as well as current cash deposits. These risks are taken into account through constant monitoring of the creditworthiness of our business partners. To this end, business partner credit ratings and Credit Default Swaps (CDS) are subject to regular evaluation. For risk management purposes, liquid funds, amongst other things, are distributed between a number of banks within fixed limits. In accordance with IFRS 9, impairments were also applied to cash and cash equivalents as well as to current cash deposits.

The maximum default risk corresponds to the carrying amount of the financial assets as of the reporting date in the sum of 231,723 thousand euros (prior year: 319,935 thousand euros). For further explanations we refer to Note 8.2 from page 216.

The following impairments were recorded for financial assets in the fiscal year:

in thousand euros	2020	2019
Financial investments	75	110
Trade receivables and contract assets	1,895	4,486
Other financial assets	25	0
Cash and cash equivalents	7	0
Total	**2,002**	**4,596**

These impairments are offset against the following reversals of write-downs on financial assets:

in thousand euros	2020	2019
Financial investments	239	280
Trade receivables and contract assets	5,814	1,740
Other financial assets	0	1
Cash and cash equivalents	98	377
Total	**6,151**	**2,398**

The impairments to or reversals of write-downs on financial assets as well as cash and cash equivalents are included in the financial result.

Liquidity risk

The liquidity risk entails the possibility of the Group being unable to meet its financial obligations. In order to ensure our ability to pay and financial flexibility at all times, the net cash and cash equivalents, as well as the lines of credit and level of utilization, are planned yearly by means of a five-year financial plan as well as via a quarterly forecast of the statement of financial position, earnings and cash flow. The liquidity risk is also limited by effective cash and working capital management.

The liquidity reserves were divided into cash and cash equivalents as of the balance sheet date in the sum of 63,405 thousand euros (prior year: 99,025 thousand euros) and current financial investments in the sum of 4,894 thousand euros (prior year: 69.661 thousand euros). In addition, the Group has a secured and unused line of credit available in the sum of 417,319 thousand euros (prior year: 222,204 thousand euros). This comprises mainly a syndicated loan in the sum of 230,000 thousand euros agreed up to March 2022 and bridge financing in the of 300,000 thousand euros. As at the balance sheet date of December 31, 2020, the syndicated loan was utilized in the form of money market loans in the sum of 110,000 thousand euros and to a minimal extent in the form of guarantees. There has been no draw-down of the bridge financing as of the balance sheet date of 31 December 2020. This is a limited term contract up to June 2021, with a one-year extension option.

In April 2020, a fixed-interest debenture bond tranche in the sum of 21,500 thousand euros was repaid on the planned date.

The outstanding debenture bonds in the sum of 69,000 thousand euros (prior year: 90,500 thousand euros) will be repaid in 2022.

Cash outflows up to one year mainly include the repayment of the money market loan plus interest, drawn down under the syndicated loan. This item also includes interest and redemption payments for real estate financing in the United States and Germany.

in thousand euros	Interest rates (Range in %)	Carrying amounts 31/12/2020	Cash outflows Total	Up to 1 year	1 to 5 years	More than 5 years
Variable interest-bearing liabilities to banks	0.8 – 1.15	15,264	15,368	879	14,489	0
	(0.8 – 1.00)	(14,053)	(14,355)	(142)	(14,213)	(0)
Fixed interest-bearing liabilities to banks	0.65 – 3.85	194,144	196,450	118,945	67,755	9,750
	(0.98 – 5.00)	(84,414)	(84,904)	(24,879)	(60,024)	(0)
Liabilities from leases	0.79 – 5.91	59,014	65,256	14,188	35,323	15,745
	(0.9 – 5.9)	(61,091)	(66,252)	(11,423)	(32,943)	(21,886)
Total		**268,423**	**277,074**	**134,012**	**117,567**	**25,495**
		(159,558)	**(165,511)**	**(36,444)**	**(107,180)**	**(21,886)**

The figures in brackets relate to the prior year.

The cash outflows in the time frame of between one to five years mainly include the repayments of the debenture bond with an original term of seven years. This also includes the repayment in full of real estate financing in the USA as well as interest and redemption payments for real estate financing in Germany and leasing.

Cash outflows over five years include interest and redemption payments for real estate financing in Germany and leasing.

in thousand euros	Carrying amounts 31/12/2020	31/12/2019
Interest-bearing financial assets	16,722	65,623
Variable interest	3,274	21,147
Fixed interest	13,448	44,476
Interest-bearing financial liabilities	268,423	159,558
Variable interest	15,264	14,053
Fixed interest	253,159	145,505

Risk of fluctuations in interest rates

The Jenoptik Group is fundamentally exposed to the risks of changes in interest rates due to fluctuations in market interest rates for all interest-bearing financial assets and liabilities. In the fiscal year 2020, this essentially affected debenture bonds raised in the sum of 69,000 thousand euros (prior year: 90,500 thousand euros) and the utilization of the syndicated loan agreement in the amount of 110,000 thousand euros, respectively as of the balance sheet date.

The calculated gains or and losses arising from a change in the market interest rate as of December 31, 2020 within a bandwidth of 100 basis points, are shown in the following table:

in thousand euros	31/12/2020	31/12/2019
Increase by 100 basis points		
Interest-bearing financial assets	167	656
Interest-bearing financial liabilities	– 2,685	– 1,596
Impact on earnings before tax	**– 2,518**	**– 940**
Reduction by 100 basis points		
Interest-bearing financial assets	– 167	– 656
Interest-bearing financial liabilities	2,685	1,596
Impact on earnings before tax	**2,518**	**940**

As part of the management of interest rate risks, Jenoptik relies on a mix of fixed and variable interest-bearing assets and liabilities, as well as on various interest rate hedging transactions. These include, for example, interest swaps, interest caps and floors, as well as combined interest and currency swaps. As of the balance sheet date on December 31, 2020, there was a combined interest rate and currency swap with the following structure.

Interest and currency swap	
Nominal amount	17,980 thousand CNY
Term	March 12, 2015 to March 12, 2025
Fixed interest rates for CNY to be paid	5.10 percent p.a.
Variable interest rate to EUR to receive	6-month Euribor

This hedging transaction is used to secure an intra-group loan for real estate financing in Shanghai (China). The increase of 46 thousand euros in its market value was recorded through profit or loss in the statement of income.

The following payments are anticipated from this interest rate hedging instruments:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Interest and currency swap	122 (123)	458 (492)	0 (83)	579 (699)

The figures in brackets relate to the prior year.

Foreign currency exchange risk

Foreign currency exchange risks are grouped into two types: translation risk and transaction risk.

The translation risk arises from fluctuations in value caused by changes in exchange rates resulting from the conversion of existing foreign currency financial assets and liabilities into the currency of the statement of financial position. Since this is not associated with any cash flows, no hedging is applied.

The transaction risk arises from the fluctuation in value of cash flows in foreign currencies caused by changes in currency exchange rates. Derivative financial instruments, primarily currency forward transactions and currency swaps, are used to hedge this risk.

Hedging is provided for significant cash flows in foreign currencies arising from its operational business (revenue). Contractually agreed cash flows are hedged 1:1 via so-called micro-hedges. Planned cash flows are hedged on a pro rata basis in the context of anticipatory hedging, securing both groups of similar transactions (revenues) as well as net positions of individual companies.

JENOPTIK AG also hedges the anticipated cash flows from intra-group loans in foreign currencies which have not been declared as a “Net Investment in a foreign operation”, using derivative financial instruments. As of December 31, 2020, intra-group loans in foreign currencies are hedged as follows:

Borrowers of intra-group loans	Outstanding amount of intra-group loans (excluding “Net investment in a foreign operation”)	Hedging amount
Prodomax Automation Ltd. Canada	13,500 TCAD 3,500 TUSD	15,000 TCAD
JENOPTIK Holdings UK Ltd., Great Britain	6,000 TGBP	4,640 TGBP
JENOPTIK JAPAN Co. Ltd., Japan	160,000 TJPY	110,000 TJPY

As of the balance sheet date, existing forward exchange transactions and currency swaps totaled a nominal 84,234 thousand euros (prior year: 118,670 thousand euros). A so-called cash flow hedge relationship with the respective underlying transaction was documented for the vast majority of these transactions. Where this is proven effective, its changes in value do not have to be recorded through profit or loss. In order to measure the effectiveness, a prospective, quality-related effectiveness test is conducted, on the designation date as well as on an ongoing basis, normally as of the balance sheet dates, on the basis of the IFRS 9 “Financial Instruments” accounting standard.

Foreign exchange forward transactions and foreign exchange swaps are grouped according to sales and purchases in foreign currencies as follows:

in thousand euros	31/12/2020	31/12/2019
USD – sale for EUR	57,375	69,641
USD – purchase for EUR	1,731	0
GBP – sale for EUR	5,003	26,752
USD – purchases for CHF	0	904
USD – sale for CAD	9,086	19,990
USD – purchase for GBP	0	675
CNY – sale for EUR	391	195
JPY – sale for EUR	862	513
CAD – sale for EUR	9,715	0
SGD – sale for EUR	70	0
Total foreign currency sales	**82,503**	**117,091**
Total foreign currency purchases	**1,731**	**1,579**

Foreign exchange forward transactions and swaps give rise to the following market values:

in thousand euros	31/12/2020	31/12/2019
Positive market values		
Derivatives with hedging relations		
non-current	500	233
current	1,456	577
Derivatives without hedging relations		
current	166	953
Total positive market values	**2,122**	**1,763**
Negative market values		
Derivatives with hedging relations		
non-current	0	1.031
current	385	3.047
Derivatives without hedging relations		
non-current	84	584
current	54	263
Total negative market values	**523**	**4,926**
Balance	**1,599**	**−3,163**

The market values for hedging transactions for intra-group loans are included in the derivatives without hedge relationships as the underlying transaction comprising intra-group receivables and liabilities is deconsolidated. The positive market values of these derivatives totaled 164 thousand euros (prior year: 958 thousand euros) as of the balance sheet date, whilst the negative market values totaled 138 thousand euros (prior year: 800 thousand euros). The change led to an overall loss of 132 thousand euros (prior year: loss of 34 thousand euros) which was recognized in the financial result through profit or loss.

Cumulative losses in derivatives with a hedging relationship in the sum of 1,262 thousand euros (prior year: 2,724 thousand euros) were recognized in equity outside profit or loss as of December 31, 2020. Of the profits and losses recognized in equity outside profit or loss as of December 31, 2019, a reclassification from equity to profit or loss was carried out in the sum of minus 2,278 thousand euros in 2020 (prior year: minus 1,191 thousand euros). This type of reclassification is normally associated with the recognition of the underlying transaction (for example, recognition of revenue and booking of the corresponding receivable on billing) through profit or loss so the targeted balancing effect of concluding the hedge transaction is reflected in the statement of income.

The foreign currency hedging transactions hedge against foreign exchange currency risks in the sum of 56,679 thousand euros with a time frame up to the end of 2021. Foreign currency exchange risks are hedged in the sum of 27,555 thousand euros with a time frame up to the end of 2023.

The main foreign currency exchange transactions of the Jenoptik Group involve US dollars. The table below shows a breakdown of the USD-based translation and transaction risks, as well as the Group’s net risk position:

in thousand euros	31/12/2020	31/12/2019
Financial assets	24,355	35,427
Financial liabilities	5,052	3,435
Translation risk	**19,303**	**31,992**
Planned cash flows	197,958	153,444
Cash flows hedged through derivatives	64,731	88,052
Transaction risk	**133,227**	**65,392**
Net risk item	**152,530**	**97,384**

The decrease in the financial assets held in US dollars compared to the prior year is mainly due to the lower level of cash and cash equivalents. The increase in planned cash flows in US dollars compared to the prior year is attributable to the JENOPTIK Group's continual focus on targeted international growth.

As of the balance sheet date there was a US dollar-based net risk item in the sum of 152,530 thousand euros (prior year: 97,384 thousand euros). A change in the US dollar exchange rate would have the following consequences:

	EUR/USD rate	Change in the net risk item (in thousand euros)
Reporting date exchange rate 31/12/2020	1.2271 (1.1234)	
Increase by 5 percent	1.2885 (1.1796)	7.263 (4.637)
Reduction by 5 percent	1.1657 (1.0672)	– 8.028 (–5.125)
Increase by 10 percent	1.3498 (1.2357)	13.866 (8.853)
Reduction by 10 percent	1.1044 (1.0111)	– 16.948 (–10.820)

The figures in brackets relate to the prior year.

8.3 Other financial obligations

As of December 31, 2020 obligations existed in the sum of 116,297 thousand euros (prior year: 102,332 thousand euros), in particular order commitments for inventories in the sum of 61,942 thousand euros (prior year: 75,259 thousand euros) and for intangible assets and property, plant and equipment in the sum of 17,342 thousand euros (prior year: 7,003 thousand euros) as well as other financial obligations of 36,966 thousand euros (prior year: 20,022 thousand euros).

The increase in order commitments for intangible assets and property, plant and equipment of 10,339 thousand euros to 17,342 thousand euros is mainly attributable to the order for a new production plant for the manufacture of future generations of sensors for the semiconductor industry.

The increase in other financial obligations by 16,944 thousand euros to 36,966 thousand euros is mainly the result of the conclusion of an electricity supply contract up to 2023 in the VINCORION division. A contract was also concluded for the provision of consulting and software services up to 2025 in connection with the measures in the VINCORION division for process and structural streamlining to achieve the desired product focus and greater independence.

Other financial obligations also include a service contract concluded for building management services which has been in force for all German Jenoptik sites since April 2018 and has a contract term of four years.

Loan commitments to non-consolidated, associated entities in the sum of 47 thousand euros (prior year: 47 thousand euros) were not taken up in full.

8.4 Legal disputes

JENOPTIK AG and its group entities are involved in few court or arbitration proceedings. Provisions for litigation risks, respectively litigation expenses, were set aside in the appropriate amounts in order to meet any potential financial burdens resulting from current court or arbitration proceedings (see Section 5.20 from page 204).

8.5 Related party disclosures in accordance with IAS 24

Related parties are defined in IAS 24 “Related Party Disclosures” as being entities or persons that have control over or are controlled by the Jenoptik Group if they have not already been included in the consolidated financial statements as consolidated entities as well as entities or persons that, on the basis of the Articles of Association or by contractual agreements, are able to significantly influence the financial and corporate policies of the Management of JENOPTIK AG or participate in the joint management of JENOPTIK AG. Control applies if a shareholder holds more than half of the voting rights in JENOPTIK AG. The largest single shareholder of JENOPTIK AG is Thüringer Industriebeteiligungs GmbH & Co. KG, Erfurt, which directly holds in total 11 percent of the voting rights and thus does not have control over JENOPTIK AG.

Members of the Executive Board and of the Supervisory Board of JENOPTIK AG also qualify as related parties. In the 2020 fiscal year, as in the prior year, no exchange of goods or of services was transacted between the entity and members of these two bodies.

The breakdown of the total remuneration of the members of the management in key positions (Executive Board and Supervisory Board), recorded in 2020 through profit or loss, is shown in the following table.

in thousand euros	2020	2019
Short-term benefits	2,397	2,331
Post-employment benefits	360	360
Share-based payment	– 23	256
Total	**2,734**	**2,947**

As at the balance sheet date, there were outstanding obligations to members of management in key positions in the total sum of 3,094 thousand euros (prior year: 3,605 thousand euros).

Detailed information on the disclosure of the remuneration of the members of the Executive Board and the Supervisory Board as required by IAS 24.9 has been published in the Remuneration Report as part of the Combined management report in the section Corporate governance on pages 51 ff. as well as in the section Required and supplementary disclosures under HGB in the Notes on pages 227 and 230.

The following table shows the composition of the business relationships with non-consolidated associates and financial investments as well as with the joint venture that still existed in the prior year as a further related party is shown in the table below.

		of which	
in thousand euros	Total	non-consolidated associates and financial investments and joint ventures	joint operation
Revenue	997	997	0
	(1,869)	(1,326)	(543)
Purchased services	947	947	0
	(1,301)	(757)	(543)
Receivables from operations	277 (204)	277 (181)	0 (22)
Liabilities from operations	66 (113)	66 (112)	0 (0)
Financial liabilities	2,800	(2,800)	0
	(1,700)	(1)	(1,700)
Loans	10	10	0
	(10)	(10)	(0)

The figures in brackets relate to the prior year.

9 Events after the Balance sheet date

The JENOPTIK AG Executive Board approved the submission of these Consolidated Financial Statements to the Supervisory Board on March 16, 2021. The Supervisory Board is responsible for reviewing and approving the Consolidated Financial Statements at its meeting on March 24, 2021.

Dividends. In compliance with the German Stock Corporation Act, the amount for a dividend payment to shareholders is based on the accumulated profit of the parent company, JENOPTIK AG, which has been determined in accordance with provisions of German commercial law (HGB). For the 2020 fiscal year, JENOPTIK AG's accumulated profit totaled 67,161,476.79 euros, comprising net profit for the 2020 fiscal year in the amount of 37,161,476.79 euros plus retained profit of 30,000,000.00 euros.

The Executive Board recommends to the Supervisory Board that for the 2020 fiscal year a dividend of 0.25 euros per qualifying no-par value share be proposed at the 2021 Annual General Meeting (prior year: 0.13 euros). This would mean that a sum of 14,309,528.75 euros from JENOPTIK AG's accumulated profits in the 2020 fiscal year would be distributed. Of JENOPTIK AG's remaining accumulated profits, a sum of 22,851,948.04 euros will be allocated to other revenue reserves, and a sum of 30,000,000.00 euros will be carried forward to new account.

With this recommendation, the Executive Board is continuing its ongoing dividend policy. Despite the effects of the COVID-19 pandemic, the acquisition of two companies and the investments at a high level, the shareholders of JENOPTIK AG should participate appropriately in the company's success. With earnings per share of 0.73 euros (prior year: 1.18 euros), the payout ratio is 34.2 percent (prior year: 11.0 percent) and is thus significantly higher than in previous years.

No further events of significance occurred after December 31, 2020.

10 Required Disclosures and Supplementary Information under HGB

10.1 Required disclosures in accordance with § 315e and § 264 (3) or § 264b of the HGB

The consolidated financial statements of JENOPTIK AG were prepared in accordance with § 315e of the HGB, exempting an entity from preparing consolidated financial statements under HGB in accordance with the guidelines of the IASB. At the same time, the consolidated financial statements and combined management report are in conformity with the European Union Consolidated Accounts Directive (2013/34/EU). In order to achieve comparability with a set of consolidated financial statements prepared in accordance with the commercial regulations of the HGB, all of the required disclosures and explanations under the HGB as well as any required disclosures above and beyond those needed to be in compliance with IFRS are to be published.

Through having been included in the consolidated financial statements of JENOPTIK AG, the following fully consolidated German associates have made use of the simplification relief measures defined in § 264 (3) or § 264b of the HGB:

- JENOPTIK Advanced Systems GmbH, Wedel
- JENOPTIK Automatisierungstechnik GmbH, Jena
- JENOPTIK Industrial Metrology Germany GmbH, Villingen-Schwenningen
- JENOPTIK Optical Systems GmbH, Jena
- JENOPTIK Power Systems GmbH, Altenstadt
- JENOPTIK Robot GmbH, Monheim am Rhein
- OTTO Vision Technology, Jena
- SAALEAUE Immobilien Verwaltungsgesellschaft mbH & Co. Vermietungs KG, in liquidation, Pullach im Isartal

10.2 Number of employees

The breakdown of the average number of employees is presented in the following table:

Employees	2020	2019
Light & Optics	1,457	1,341
Light & Production	1,065	1,072
Light & Safety	475	471
VINCORION	743	758
Other	310	320
Total	**4,049**	**3,961**

In the 2020 fiscal year an average of 161 trainees (prior year: 123) were employed.

10.3 Cost of materials and personnel expenses

in thousand euros	2020	2019
Cost of materials		
Expenditures for raw materials, consumables and merchandise	251,263	277,799
Expenditure for services purchased	61,216	66,977
Total	**312,479**	**344,776**
Personnel expenses		
Wages and salaries	248,339	261,744
Social security, pension contributions and retirement benefits	42,710	39,332
Total	**291,049**	**301,076**

10.3 Financial statement auditor fees

The fees for the services rendered by our auditor, as well as by its affiliates and network companies, amounted to:

in thousand euros	2020	2019
Financial statement audit services	1,377	833
Other services	22	380
Other attestation services	29	40
Tax consulting services	8	15
Total	**1,436**	**1,269**

The fees for the audit services relate to expenses for the audit of the consolidated financial statements of the Jenoptik Group and the audits of the subsidiaries included in the consolidated financial statements. The increase is mainly due to the auditing services in the USA and at TRIOPTICS.

The other services of the auditor relate to permissible consulting services in connection with questions of accounting according to IFRS and transaction consulting services. The previous year included in particular consulting services in connection with the sales process of the VINCORION division. The prior year included in particular consulting services in connection with the VINCORION division's sales process. Other confirmation services were provided in the context of the certification of financial indicators, certificates according to the Renewable Energy Sources Act, according to the European Market Infrastructure Regulation (EMIR) and in connection with an IT migration test.

Of the total expenses, financial statement audit services accounted for 862 thousand euros (prior year: 697 thousand euros), other services 22 thousand euros (prior year: 380 thousand euros) other attestation services 29 thousand euros (prior year: 40 thousand euros), with the tax consulting services rendered by the auditors of the consolidate financial statements Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Germany, accounting for 8 thousand euros (prior year: 15 thousand euros).

11 Corporate Governance

11.1 German Corporate Governance Code

In December 2020, the Executive Board and Supervisory Board of JENOPTIK AG submitted a declaration of conformity in accordance with § 161 of the German Stock Corporation Act as required by the recommendations of the Government Commission's German Corporate Governance Code in the version dated December 16, 2019. The declaration of conformity is reproduced in the Corporate Governance statement from page 36 and has been made permanently available to shareholders on the JENOPTIK AG website under www.jenoptik.com in the section Investors/Corporate Governance. The declaration is available for inspection in the offices of JENOPTIK AG (Carl-Zeiss-Straße 1, 07743 Jena, Germany).

11.2 Executive Board

The following persons were appointed as members of the Executive Board in the 2020 fiscal year:

	Other mandates with:
Dr. Stefan Traeger President & CEO of JENOPTIK AG	JENOPTIK North America, Inc., USA (GI, Chairman, CCB) JENOPTIK (Shanghai) Precision Instrument and Equipment Co., Ltd., China (GI; Chairman, CCB) JENOPTIK (Shanghai) International Trading Co., Ltd., China (GI, Member, CCB) Prodomax Automation Ltd., Kanada (GI, Chairman, CCB) JENOPTIK Korea Corp., Ltd., Korea (GI, Member, CCB) JENOPTIK JAPAN Co. Ltd., Japan (GI, Member, CCB) TELSTAR-HOMMEL Co., Ltd., Korea (GI, Member, CCB)
Hans-Dieter Schumacher Member of the Executive Board of JENOPTIK AG	JENOPTIK (Shanghai) Precision Instrument and Equipment Co., Ltd; China (GI; Member, CCB) JENOPTIK (Shanghai) International Trading Co., Ltd., China (GI, Member, CCB) JENOPTIK Traffic Solutions Switzerland, Switzerland (GI, Chairman, CCB) JENOPTIK North America, Inc., USA (GI, Member, CCB, since January 1, 2021)

Abbreviations: CCB – comparable controlling body, GI – Group internal appointment

The following overview shows the remuneration of the Executive Board for the 2020 fiscal year. In addition to direct or indirect remuneration components earned, this overview includes the fair value of the share-based remuneration instruments (performance shares). A detailed description of the remuneration system can be found in the Remuneration Report on pages 51 of the Combined Management Report in the chapter Corporate Governance.

Fringe benefits consist of contributions to the accident insurance as well as the provision of company cars.

Retirement benefits paid to former Executive Board members or their survivors amounted to 218 thousand euros (prior year: 185 thousand euros). As of the balance sheet date, the pension provisions for former Executive Board members totaled 3,371 thousand euros. The expenses recorded for these existing provisions in the 2020 fiscal year comprised interest costs in the sum of 26 thousand euros (prior year: 50 thousand euros).

In the 2020 fiscal year – as in the preceding years – no loans or advances were granted to the members of either the Executive Board or the Supervisory Board. Consequently, there were no loan redemption payments.

Components of the remuneration for the Executive Board

	Dr. Stefan Traeger (President & CEO)		Hans-Dieter Schumacher (Member of the Executive Board)	
in thousand euros	2020	2019	2020	2019
Fixed remuneration	600.0	600.0	450.0	450.0
Variable remuneration	301.6	185.8	194.6	123.8
Performance shares for the fiscal year*	199.7	376.2	144.4	282.2
LTI granted for dividend protection of existing shares	n. a.	n. a.	4.0	19.4
Retirement benefits	200.0	200.0	160.0	160.0
Fringe benefits	18.5	18.0	21.0	18.4
Total remuneration	**1,319.8**	**1,380.0**	**974.0**	**1,053.8**

* shown at fair value on the date of the provisional allocation

11.3 Supervisory Board

The following persons were appointed members of the Supervisory Board in the 2020 fiscal year:

	Member of	Other mandates with
Matthias Wierlacher (Chairman) Chairman of the Board of the Thüringer Aufbaubank Appointed in 2012, Chairman since July 2015	• Personnel Committee (Chairman) • Investment Committee (Chairman) • Nomination Committee (Chairman) • Mediation Committee (Chairman)	• Mittelständische Beteiligungsgesellschaft Thüringen mbH (SB member) • bm-t beteiligungsmanagement thüringen GmbH (GI, SB Chairman) • ThüringenForst – Public Body – (CCB)
Michael Ebenau [1] (Vice Chairman up to October 15, 2020) Secretary of the IG Metall Union, District Management Mitte Appointed since 2007, up to October 15, 2020	• Personnel Committee (up to October 15, 2020) • Investment Committee (up to October 15, 2020) • Mediation Committee (up to October 15, 2020)	None
Stefan Schaumburg [1] (Vice Chairman since October 16, 2020) Union secretary and functional area manager at the IG Metall Union, Frankfurt Appointed in 2012	• Personnel Committee • Investment Committee (since November 12, 2020) • Mediation Committee (since October 16, 2020)	• GKN Driveline International GmbH (Vice Chairman SB; CCB; up to December 31, 2020
Astrid Biesterfeldt [1] Vice President Business Unit Energy & Drive at JENOPTIK Advanced Systems GmbH Appointed in 2014	• Audit Committee	None
Evert Dudok Executive Vice President Connected Intelligence, Airbus Appointed in 2015		• EURASSPACE Gesellschaft für Raumfahrttechnik mbH (GI, SB Member)
Elke Eckstein CEO Enics AG, Switzerland Appointed in 2017	• Investment Committee	• Enics Eesti AS, Estonia (GI, CCB, Chairman) • Enics Electronics (Beijing) Ltd., China (GI, CCB) • Enics Electronics (Suzhou) Ltd., China (GI, CCB) • Enics Finland Oy, Finland (GI, CCB, Chairman) • Enics Hong Kong Ltd., Hong Kong (GI, CCB) • Enics Raahe Oy, Finland (GI, CCB, Chairman) • Enics Schweiz AG, Switzerland (GI, CCB, Chairman) • Enics Slovakia s.r.o., Slovakia (GI, CCB) • Enics Sweden AB, Sweden (GI, CCB, Chairman) • Saferoad SRH Holding AS, Norway (CCB) • KK Wind Solutions A/S, Denmark (CCB, Member since April 1, 2020)

	Member of	Other mandates with
Thomas Klippstein[1] Chairman of the Group Advisory Board of Jenoptik Appointed in 1996	• Personnel Committee • Audit Committee	None
Dörthe Knips[1] Local Works Committee Chairman of the Light & Optics Division Jena & Dresden Appointed since 2017	• Investment Committee • Mediation Committee	None
Dieter Kröhn[1] Production planner at JENOPTIK Advanced Systems GmbH Appointed October 1999 to June 2007, reappointed in December 2010	• Investment Committee • Mediation Committee	None
Doreen Nowotne Independent corporate management consultant Appointed in 2015	• Audit Committee (Vice Chairman) • Investment Committee	• Brenntag AG (SB member since June 10, 2020 (SB Chairman) • Lufthansa Technik AG (SB member) • Franz Haniel & Cie. GmbH (SB member, since April 1, 2020 SB Chairman)
Heinrich Reimitz Member of the Management of HPS Holding GmbH, Austria Appointed in 2008	• Audit Committee (Chairman) • Personnel Committee, • Nomination Committee	• Ühinenud Farmid AS, Estonia (CCB, member)
Frank-Dirk Steininger[1] District Secretary IG Metall Mitte in Frankfurt am Main Appointed since October 16, 2020	• Personnel Committee (since November 12, 2020)	None
Prof. Dr. rer. nat. habil., Master's in Physics Andreas Tünnermann Director of the Institute for Applied Physics and university lecturer in applied physics at the Friedrich Schiller University Jena, and Head of the Fraunhofer Institute for Applied Optics and Precision Mechanics, Jena Appointed in 2007	• Personnel Committee • Mediation Committee • Nomination Committee	• Docter Optics SE (CCB, member) • ARRI AG (SB member)

[1] Employee representative
Abbreviations: SB – Supervisory Board, CCB – Comparable Controlling Body, GI – Group internal appointment, Dep. – Deputy

Supervisory Board remuneration

For the 2020 fiscal year the members of the Supervisory Board received the following remuneration in total:

in thousand euros	Total earnings	of which: Fixed annual remuneration 2020	of which: Meeting allowances (plus reimbursement of expenses)	Sales tax[1]
Matthias Wierlacher (Chairman)	121.6	109.5	12.2	19.3
	(132.3)	(119.0)	(13.3)	(21.1)
Michael Ebenau	66.8	58.6	8.2	9.3
(Vice Chairman until 15/10/2020)	(95.8)	(83.3)	(12.5)	(15.3)
Stefan Schaumburg	60.1	54.1	6.0	9.5
(Vice Chairman since 16/10/2020)	(65.4)	(53.6)	(11.8)	(10.4)
Astrid Biesterfeldt	61.8	54.7	7.0	9.8
	(72.7)	(59.5)	(13.2)	(11.6)
Evert Dudok	45.8	42.8	2.9	7.3
	(54.9)	(47.6)	(7.3)	(8.7)
Elke Eckstein	55.8	48.8	7.0	8.8
	(66.1)	(53.6)	(12.6)	(10.2)
Thomas Klippstein	72.4	60.7	11.7	11.4
	(82.1)	(65.5)	(16.6)	(13.1)
Dörthe Knips	57.0	48.8	8.2	9.0
	(63.7)	(53.6)	(10.1)	(10.2)
Dieter Kröhn	56.4	48.8	7.6	8.9
	(63.1)	(53.6)	(9.5)	(10.1)
Doreen Nowotne	76.0	66.6	9.4	12.0
	(88.9)	(71.4)	(17.5)	(14.2)
Heinrich Reimitz	69.7	61.0	8.7	–
	(90.1)	(65.0)	(25.1)	–
Frank-Dirk Steininger	11.6	9.8	1.7	1.8
(since 16/10/2020)	–	–	–	–
Prof. Dr. rer. nat. habil.	55.8	48.8	7.0	8.8
Andreas Tünnermann	(63.2)	(53.6)	(9.6)	(10.1)
Total	**810.8**	**713.0**	**97.6**	**115.9**
	(938.3)	**(779.3)**	**(159.1)**	**(135.0)**

[1] Included in total remuneration, fixed remuneration and attendance fees; Due to his place of residence abroad, Mr. Mag. Heinrich Reimitz has limited tax liability in Germany; Since a tax withholding was paid on his remuneration in accordance with § 50a (1) No. 4 EStG, no sales tax was due.
The values in brackets relate to the prior year

For a more detailed explanation of the Supervisory Board remuneration system we refer to the Remuneration Report in the Corporate Governance chapter which forms part of the Combined Management Report.

12 List of Shareholdings in the Jenoptik Group as at December 31, 2020 in accordance with § 313 (2) HGB

No.	Name and registered office of the entity	Share of Jenoptik or the direct shareholder in %	Equity 31/12/2020 in thousand euros[7]	Result for 2020 in thousand euros[7]
	1.1. Consolidated associates – direct investments			
1	JENOPTIK Robot GmbH, Monheim am Rhein, Germany	100		
2	JENOPTIK Industrial Metrology Germany GmbH, Villingen-Schwenningen, Germany	100		
3	JENOPTIK Automatisierungstechnik GmbH, Jena, Germany	100		
4	JENOPTIK Advanced Systems GmbH, Wedel, Germany	100		
5	JENOPTIK Optical Systems GmbH, Jena, Germany	100		
6	SAALEAUE Immobilien Verwaltungsgesellschaft mbH & Co. Vermietungs KG, Jena, Germany, i.L.[5]	100		
7	JENOPTIK North America, Inc., Jupiter (FL), USA	100		
8	JENOPTIK Asia-Pacific Pte. Ltd., Singapore, Singapore	100		
	– indirect investments			
9	JENOPTIK Traffic Solutions Switzerland AG, Uster, Switzerland	100		
10	JENOPTIK ROBOT MALAYSIA SDN BHD, Kuala Lumpur, Malaysia, i.L.[5]	100		
11	ROBOT Nederland B.V., Riel, Netherlands	100		
12	JENOPTIK Holdings UK Ltd., Milton Keynes, Great Britain	100		
13	Vysionics ITS Holdings Ltd., Milton Keynes, Great Britain	100		
14	JENOPTIK Traffic Solutions UK Ltd., Camberley, Great Britain	100		
15	Domestic and Commercial Security Ltd., Saltesh, Great Britain	100		
16	JENOPTIK Industrial Metrology Switzerland SA, Peseux, Switzerland	100		
17	JENOPTIK Industrial Metrology France SAS, Bayeux Cedex, France	100		
18	OTTO Vision Technology GmbH, Jena, Germany	100		
19	JENOPTIK Power Systems GmbH, Altenstadt, Germany	100		
20	PHOTONIC SENSE GmbH, Eisenach, Germany	100		
21	PHOTONIC SENSE, INC., Nashua (NH), USA	100		
22	Asam Grundstücksverwaltungsgesellschaft mbH & Co. Vermietungs KG, Mainz, Germany	94		
23	Traffipax, LLC, Jupiter (FL), USA	100		
24	JENOPTIK Automotive North America, LLC, Rochester Hills (MI), USA	100		
25	JENOPTIK INDUSTRIAL METROLOGY DE MEXICO, S. DE R.L. DE C.V., Saltillo, Mexico	98		
26	Five Lakes Automation, LLC, Novi (MI), USA	100		
27	JENOPTIK Optical Systems, LLC, Jupiter (FL), USA	100		
28	JENOPTIK Advanced Systems, LLC, El Paso (TX), USA	100		
29	Prodomax Automation Ltd., Barrie, Canada	100		
30	JENOPTIK (Shanghai) Precision Instrument and Equipment Co., Ltd., Shanghai, China	100		
31	JENOPTIK (Shanghai) International Trading Co., Ltd., Shanghai, China	100		
32	JENOPTIK Australia Pty Ltd, Sydney, Australia	100		
33	JENOPTIK Korea Corporation, Ltd., Pyeongtaek, Korea	66.66		
34	JENOPTIK JAPAN Co. Ltd., Yokohama, Japan	100		

No.	Name and registered office of the entity	Share of Jenoptik or the direct shareholder in %	Equity 31/12/2020 in thousand euros [7]	Result for 2020 in thousand euros [7]
35	JENOPTIK India Private Limited, Bangalore, India	100		
36	BROXBURN, S.L., Madrid, Spain	100		
37	INTEROB, S.L., Valladolid, Spain	100		
38	INTEROB RESEARCH & SUPPLY, S.L., Valladolid, Spain	100		
39	Trioptics GmbH, Wedel, Germany	75 [8]		
40	Mellifera Dreizehnte Beteiligungsgesellschaft mbH, Berlin, Germany	100		
41	Mellifera Zwölfte Beteiligungsgesellschaft mbH, Berlin, Germany	100		
42	TRIOPTICS Berlin GmbH, Berlin, Germany	100		
43	TRIOPTICS SINGAPORE PTE. LTD., Singapore	100		
44	Trioptics Optical Test Instruments (China) Ltd., Bejing, China	51		
45	Trioptics Hong Kong Limited, Hong Kong	100 [9]		
46	Trioptics Japan Co., Ltd., Shizuoka, Japan	61.25		
47	Trioptics Korea Co., Ltd., Suwon, Korea	60		
48	TRIOPTICS TAIWAN LTD., Taoyuan, Taiwan	51		
49	Trioptics, Inc., Rancho Cucamonga, California, USA	100		
	1.2 Unconsolidated associates – direct investments			
50	FIRMICUS Verwaltungsgesellschaft mbH, Jena, Germany, i.L. [5]	100	33	2
51	SAALEAUE Immobilien Verwaltungsgesellschaft mbH, Jena, Germany, i.L. [5]	100	33 [10]	2 [10]
52	KORBEN Verrwaltungsgesellschaft mbH, Grünwald, Germany, i.L. [5]	100	30 [1]	1 [1]
	– indirect investments			
53	JENOPTIK do Brasil Instrumentos de Precisão e Equipamentos Ltda., Sao Paulo, Brazil	100	−647 [1]	120 [1]
54	JENOPTIK Saudi Arabia, LLC, Jeddah, Saudi-Arabia, i.L. [5]	100	51 [2]	−44 [2]
	2. Investments accounted for using the equity method			
55	TELSTAR-HOMMEL CORPORATION, Ltd., Pyeongtaek, Korea	33.33	17.658 [1]	1.903 [1]
56	HILLOS GmbH, Jena, Germany	50	14.787	1.144
57	Trioptics France S.A.R.L., Villeurbane, France	50	178	−229
	3. Investments – direct investments			
58	JENAER BILDUNGSZENTRUM gGmbH SCHOTT CARL ZEISS JENOPTIK, Jena, Germany	33.33	1.325 [1]	698 [1]
	– indirect investments			
59	JT Optical Engine Verwaltungs GmbH, Jena, Germany, i.L. [5]	50 [4]	23	0
60	JT Optical Engine GmbH + Co. KG, Jena, Germany, i.L. [5]	50 [4]	507	−1
61	JENOPTIK Robot Algérie SARL, Algier, Algeria	49	256 [1]	159 [1]
62	HOMMEL CS s.r.o., Teplice, Czech Republic	40	1.001 [1]	108 [1]
63	Zenteris GmbH, Jena, Germany, i.I. [6]	24.9 [4]	[3]	[3]

[1] Details for 2019 financial statements
[2] Details for 2017 financial statements
[3] Details not available
[4] Deviating fiscal year as of June 30
[5] i.L. = in liquidation
[6] i.I. = in insolvency
[7] Information from annual financial statements in foreign currency converted at the closing rate or the average rate for the respective year
[8] Consolidation to 100% due to present ownership
[9] Indirect participation through Trioptics Optical Test Instruments (China) Ltd.
[10] Short fiscal year from January 1 to September 30, 2020

Jena, March 16, 2021
JENOPTIK AG

The Executive Board