Consolidated Financial Statements

Excellent financial resources and solid balance sheet ratios are proof of a healthy, well-positioned company: our asset position improved in 2016; equity and the equity ratio grew despite a rise in the balance sheet total. Jenoptik has a viable capital and financing structure. Net debt was completely eliminated by the end of 2016.

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Consolidated Statement of Comprehensive Income

Consolidated Statement of Income

in thousand euros	Note No.	1/1 – 31/12/2016	1/1 – 31/12/2015
Continuing operations			
Revenue	4.1	684,769	668,637
Cost of Sales	4.2	446,915	442,468
Gross profit		**237,854**	**226,169**
Research and development expenses	4.3	42,298	41,774
Selling expenses	4.4	73,598	72,591
General administrative expenses	4.5	57,583	53,997
Other operating income	4.7	23,374	27,019
Other operating expenses	4.8	21,540	23,777
EBIT		**66,209**	**61,048**
Result from other investments	4.9	303	1,558
Financial income	4.10	4,403	5,469
Financial expenses	4.10	9,892	10,819
Financial result		**−5,185**	**−3,792**
Earnings before tax		61,024	57,256
Income taxes	4.11	−7,112	−7,516
Earnings after tax		**53,911**	**49,740**
Discontinued operations	4.14		
Other operating income		2,261	175
EBIT		**2,261**	**175**
Financial income		1,458	0
Financial result		**1,458**	**0**
Earnings before tax		**3,719**	**175**
Income taxes		−174	0
Earnings after tax		**3,545**	**175**
Group			
Earnings after tax		**57,456**	**49,915**
Results from non-controlling interests	4.12	53	345
Earnings attributable to shareholders	4.13	57,403	49,570
Earnings per share in euros – continuing operations	4.15	**0.94**	**0.86**
Earnings per share in euros – discontinued operations	4.15	0.06	0.00
Earnings per share in euros – Group (diluted = undiluted)	4.15	**1.00**	**0.87**

Comprehensive income

in thousand euros	Note No.	1/1 – 31/12/2016	1/1 – 31/12/2015
Earnings after tax		**57,456**	**49,915**
Items that will never be reclassified to profit or loss	5.16	−358	4,669
Actuarial gains/losses arising from the valuation of pensions and similar obligations		−298	6,255
Deferred taxes		−60	−1,585
Items that are or may be reclassified to profit or loss	5.16	−2,376	5,456
Available-for-sale financial assets		−249	202
Cash flow hedges		−1,680	778
Foreign currency exchange differences		−915	4,633
Deferred taxes		468	−158
Total other comprehensive income		**−2,735**	**10,125**
Total comprehensive income		**54,722**	**60,041**
Thereof attributable to:			
Non-controlling interest		331	245
Shareholders		54,391	59,795

Consolidated Statement of Financial Position

Assets in thousand euros	Note No.	31/12/2016	31/12/2015	Change
Non-current assets		**371,891**	**382,827**	**−10,935**
Intangible assets	5.1	111,352	122,737	−11,385
Property, plant and equipment	5.2	157,882	155,659	2,223
Investment property	5.3	4,444	4,536	−92
Financial investments	5.5	19,034	21,745	−2,711
Non-current trade receivables	5.6	1,923	3,100	−1,177
Other non-current financial assets	5.7	1,926	1	1,925
Other non-current non-financial assets	5.8	1,108	1,447	−340
Deferred tax assets	5.9	74,223	73,602	621
Current assets		**441,159**	**386,340**	**54,819**
Inventories	5.10	159,324	167,132	−7,809
Current trade receivables	5.11	129,821	123,616	6,205
Other current financial assets	5.12	2,422	1,991	432
Other current non-financial assets	5.13	7,091	9,359	−2,267
Current financial investments	5.14	50,540	418	50,122
Cash and cash equivalents	5.15	91,961	83,824	8,137
Total assets		**813,051**	**769,167**	**43,884**

Equity and liabilities in thousand euros		31/12/2016	31/12/2015	Change
Equity	5.16	**476,379**	**435,132**	**41,247**
Share capital		148,819	148,819	0
Capital reserve		194,286	194,286	0
Other reserves		133,604	93,108	40,496
Non-controlling interests	5.17	−330	−1,081	751
Non-current liabilities		**175,358**	**169,513**	**5,845**
Pension provisions	5.18	37,630	36,095	1,535
Other non-current provisions	5.20	12,339	10,275	2,064
Non-current financial debt	5.22	120,479	113,243	7,236
Non-current trade payables	5.23	680	1,183	−503
Other non-current financial liabilities	5.24	3,485	2,912	574
Other non-current non-financial liabilities	5.25	655	3,820	−3,165
Deferred tax liabilities	5.9	90	1,986	−1,896
Current liabilities		**161,313**	**164,521**	**−3,208**
Tax provisions	5.19	3,380	3,281	99
Other current provisions	5.20	46,152	42,745	3,407
Current financial debt	5.22	4,129	14,850	−10,721
Current trade payables	5.26	48,402	48,355	47
Other current financial liabilities	5.27	5,642	10,213	−4,572
Other current non-financial liabilities	5.28	53,609	45,078	8,531
Total equity and liabilities		**813,051**	**769,167**	**43,884**

Consolidated Statement of Cash Flows

in thousand euros	1/1–31/12/2016	1/1–31/12/2015
Earnings before tax – continuing operations	61,024	57,256
Earnings before tax – discontinued operations	3,719	175
Earnings before tax	**64,743**	**57.431**
Interest income	4,030	5.350
Non-operating income from investments	−1,693	0
Depreciation and amortization	27,603	28,770
Impairment losses and reversals of impairment losses	1,982	−2,319
Profit/loss from asset disposals	−591	−1,491
Other non-cash income/expenses	−446	−663
Operating profit before adjusting working capital and further items of the statement of financial position	**95,628**	**87,078**
Change in provisions	4,539	3,419
Change in working capital	5,713	5,582
Change in other assets and liabilities	3,342	−4,407
Cash flows from operating activities before income tax	**109,223**	**91,673**
Income tax expense	−9,121	−6.548
Cash flows from operating activities	**100,102**	**85,124**
thereof discontinued operations	101	175
Proceeds from sale of intangible assets	154	62
Capital expenditure for intangible assets	−3,446	−2,500
Proceeds from sale of property, plant and equipment	126	263
Capital expenditure for property, plant and equipment	−25,681	−17,743
Proceeds from sale of investment property	0	9,100
Capital expenditure for investment property	0	−333
Proceeds from sale of financial investments	1,508	8
Capital expenditure for financial investments	−356	−317
Proceeds from sale of consolidated entities	1,211	0
Acquisition of consolidated entities	−539	−708
Proceeds from sale of investment companies	1,126	4,480
Capital expenditure for financial assets within the framework of short-term disposition	−49,746	0
Proceeds from non-operating income from investments	1,693	0
Interest received	2,610	537
Cash flows from investing activities	**−71,339**	**−7,152**
thereof discontinued operations	2,669	0
Dividends paid	−12,592	−11,447
Proceeds from issuing bonds and loans	7,463	103,000
Repayments of bonds and loans	−11,468	−136,244
Payments for finance leases	−33	−49
Change in group financing	−556	−12,123
Interest paid	−3,541	−9,681
Cash flows from financing activities	**−20,728**	**−66,544**
Change in cash and cash equivalents	**8,035**	**11,428**
thereof discontinued operations	2,770	175
Effects of movements in exchange rates on cash held	102	2,901
Cash and cash equivalents at the beginning of the period	83,824	69,495
Cash and cash equivalents at the end of the period	**91,961**	**83,824**

Statement of Changes in Equity

in thousand euros	Note No.	Share Capital	Capital reserve	Retained Earnings	Available-for-sale financial assets
Balance at 1/1/2015		**148,819**	**194,286**	**73,442**	**600**
Dividends	6			− 11,447	
Measurement of financial instruments	5.5 / 8.2				202
Measurement of pension obligations	5.18				
Foreign currency exchange differences	5.16				
Net profit for the period	4.12 / 4.13			49,570	
Other adjustments				− 57	
Balance at 31/12/2015		**148,819**	**194,286**	**111,508**	**802**
Balance at 1/1/2016		**148,819**	**194,286**	**111,508**	**802**
Acquisition of non-controlling interests	2.4			− 419	
Dividends	6			− 12,592	
Measurement of financial instruments	5.5 / 8.2				− 287
Measurement of pension obligations	5.18				
Foreign currency exchange differences	5.16				
Net profit for the period	4.12 / 4.13			57,403	
Other adjustments	2.1			− 883	
Balance at 31/12/2016		**148,819**	**194,286**	**155,016**	**515**

	Cash flow hedges	Cumulative exchange differences	Actuarial effects	Equity attributable to shareholders of JENOPTIK AG	Non-controlling interests	Total	
	−945	**4,042**	**−32,322**	**387,922**	**−1,329**	**386,593**	**Balance at 1/1/2015**
				−11,447		−11,447	Dividends
	546			748		748	Measurement of financial instruments
			4,669	4,669		4,669	Measurement of pension obligations
		5,231	−423	4,807	−100	4,707	Foreign currency exchange differences
				49,570	345	49,915	Net profit for the period
				−57	3	−54	Other adjustments
	−399	**9,273**	**−28,076**	**436,213**	**−1,081**	**435,132**	**Balance at 31/12/2015**
	−399	**9,273**	**−28,076**	**436,213**	**−1,081**	**435,132**	**Balance at 1/1/2016**
				−419	419	0	Acquisition of non-controlling interests
				−12,592		−12,592	Dividends
	−1,178			−1,465		−1,465	Measurement of financial instruments
			−358	−358		−358	Measurement of pension obligations
		−1,165	−23	−1,188	278	−911	Foreign currency exchange differences
				57,403	53	57,456	Net profit for the period
				−883	0	−883	Other adjustments
	−1,577	**8,108**	**−28,457**	**476,710**	**−331**	**476,379**	**Balance at 31/12/2016**

Notes

1 Presentation of the Group Structure

1.1 Parent Company

The parent company is JENOPTIK AG headquartered in Jena and is registered in the Commercial Register of Jena in Department B under the number 200146. JENOPTIK AG is publicly listed on the German Stock Exchange in Frankfurt and in the TecDax index.

The list of shareholdings of the Jenoptik 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 185 on of 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, were 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 2016 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. If not otherwise specified, all amounts were presented in thousand euros. Please note that there may be rounding differences as compared to the mathematically exact amounts (monetary units, percentages, etc.). The statement of comprehensive income was prepared in accordance with the cost of sales method.

The fiscal year of JENOPTIK AG and those of the 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 comprehensive income and in the statement of financial position. The classifications used for these items are listed in the Notes.

IFRS Improvements (2012 – 2014). The Annual Improvements Project made amendments to four standards. Along with the clarification of existing regulations, amendments impacting on the accounting and disclosures in the Notes were adopted. The standards affected are IAS 19, IAS 34, IFRS 5 and IFRS 7. These amendments come into effect on January 1, 2016. These improvements have no material effect on the consolidated financial statements.

Amendments to IAS 1 "Presentation of Financial Statements". These amendments affect various disclosure issues. These clearly specify that disclosures in the Notes are only required if their content is not immaterial. This also applies explicitly if an IFRS regulation requires a list of minimum disclosures. In addition, explanations have been added regarding aggregating and disaggregating items in the statement of financial position and the statement of comprehensive income. Furthermore, these clearly specify how investments in entities valued at equity are to be disclosed in other comprehensive income in the statement of comprehensive income. Finally, a sample structure for the Notes was removed in order to take account of content which is relevant for the specific entity. Furthermore, the changes clarify which regulations apply for the presentation of additional subtotals in the statement of financial position, the income statement and other comprehensive income. These amendments come into effect on January 1, 2016. These amendments have no material effect on the consolidated financial statements.

Amendment to IAS 16 "Property, Plant and Equipment" and IAS 38 "Intangible Assets". This amendment provided further guidelines for determining an acceptable method of depreciation. Turnover-based depreciation methods are accordingly not permitted for property, plant and equipment and only permitted in certain exceptional cases for intangible assets (rebuttable presumption of inappropriateness). This amendment comes into effect on January 1, 2016. This amendment has no material effect on the consolidated financial statements.

Amendment to IFRS 11 "Joint Arrangements". This amendment allows the IASB to regulate the accounting treatment for an acquisition of shares in a joint operation that constitutes a business as defined by IFRS 3 "Business Combinations". In such cases the acquiring entity should apply the accounting principles specified in IFRS 3 for business combinations. Moreover, the disclosure requirements specified in IFRS 3 also apply. This amendment comes into effect on January 1, 2016. This amendment has no material effect on the consolidated financial statements.

The new regulations listed below are not applicable to the Group and therefore have no effect on the consolidated financial statements:

- Changes to IFRS 10, IFRS 12 and IAS 28: Investment entities – application of the exemption from the disclosure on consolidation
- Change to IAS 27: Equity method in individual financial statements
- Amendments to IAS 16 and IAS 41: Fruit-bearing plants

The application of the following standards and interpretations published by the IASB and adopted by the EU is not yet mandatory, nor have these been applied by Jenoptik in the consolidated financial statements as at December 31, 2016. The Group does not intend an early application of those standards.

The new standards or amendments to standards are to be applied for the fiscal years commencing on or after the date these come into effect.

IFRS 9 "Financial Instruments". This standard replaces all earlier versions of IAS 39 for the classification and valuation of financial assets and liabilities as well as for the accounting treatment for hedging instruments. This new version of the standard contains revised guidelines for the classification and valuation of financial instruments. These include a new model for anticipated credit defaults for calculating the impairment loss to financial assets as well as the new general accounting regulations for hedging transactions. This standard also adopts the IAS 39 guidelines for the recognition and derecognition of financial instruments. IFRS 9 is to be adopted in fiscal years beginning on or after January 1, 2018. Early application is allowed. With the exception of the accounting for hedging transactions, the standard is to be applied retrospectively, but there is no requirement for the disclosure of comparison information. Apart from a few exceptions, the regulations for the accounting treatment of hedging transactions must be applied in general prospectively.

Jenoptik is presently analyzing the impact of this standard on the consolidated financial statements. The Group does not anticipate the application of the regulations on classification and valuation to have any significant consequences for its statement of financial position or the equity. Jenoptik assumes, on the basis of the currently available information, that all financial assets shown at fair value will continue to be recognized at fair value. There is also expected to be no material change with regard to assets valued at amortized procurement costs in accordance with IFRS 9. In our current assessment, the new method for showing impairment losses in accordance with the Expected Loss model will not lead to any material changes in the consolidated financial statements. Since IFRS 9 does not provide for any change in the general principles of effective hedging relationships, no material changes are expected with regard to the accounting of hedging relationships in the consolidated financial statements. However, with regard to the specific effects, there is still a need for an analysis which is not available as at the current status of the project.

IFRS 15 "Revenue from Contracts with Customers". IFRS 15 introduces a five-stage model for accounting for revenue from contracts with customers. Under IFRS 15, revenue is recorded in the amount of the consideration in return which an entity can expect for the transfer of goods or services to a customer (the transaction price within the meaning of IFRS 15). This standard replaces existing guidelines for recording revenues such as IAS 18 Revenue, IAS 11 Construction Contracts and IFRIC 13 Customer Loyalty Programs. For fiscal years commencing on or after January 1, 2018, the regulation stipulates either the full retrospective application or a modified retrospective application. Early application is allowed.

Jenoptik is presently analyzing the impact on the consolidated financial statements as part of a project. Based on the results of the first completed phases of the project, potential changes are mainly expected in the following points:

a) Contractual penalties arising from contracts with customers: Payments of contractual penalties will in future reduce revenue. In the past, these were reported as cost of sales.
b) Warranties: The Group offers individual customers extended warranty periods compared with the standard periods. These were previously recorded as a liability at the time of sale, recognized as an expense, under cost of sales. Under the rules of IFRS 15, the Group's provisional assessment is that this a separate performance obligation which is realized over the warranty period. In addition to a deferral between revenue and cost of sales, this leads to a tendency for revenue to be recognized at a later date.
c) Customer-specific development projects, followed by serial manufacture: In the past, revenues were recognized after delivery of the product, unless IAS 11 applied (successive contracts to supply). The Group expects that under IFRS 15 development services will be recognized as revenue on a pro rata basis over the duration of the development instead of a recognition with the serial manufacturing. According to provisional calculations, in the fiscal year 2018 this will lead to an minimal reduction in revenue and a bit stronger reduction in the cost of sales, as well as in a tendency towards revenue being recognized at an earlier date.

The Group currently intends to record the conversion effects on January 1, 2018 on a cumulative basis into equity. Based on the current knowledge this leads to a reduction of equity by a mid single-digit million amount.

Furthermore when applying IFRS 15 Jenoptik will definitely need to disclose more information concerning the nature, amount, timing and the uncertainty of revenue and cash flows arising from contracts with customers as defined in IFRS 15.

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

Clarification on IFRS 15 "Revenue from Contracts with Customers". The clarifications explain implementation issues which were addressed by the Joint Transition Group for Revenue Recognition. These questions relate to the identification of performance obligations, the application guidelines for principal-agent relationships and licenses for intellectual property, as well as the transitional provisions. In addition, the aim of the amendments is to ensure a more consistent approach in the implementation of IFRS 15 and to reduce the costs and complexity associated with its application. The amendments will come into effect on January 1, 2018.

Amendment to IFRS 10 "Consolidated Financial Statements" and IAS 28 "Investments in Associates and Joint Ventures". The amendments address a well-known inconsistency between the regulations of IFRS 10 and IAS 28 (2011) for cases when assets are to be sold to an associate or to a joint venture or when assets are to be contributed towards an associate or to a joint venture. The intention in the future is for the entire profit or loss from a transaction to only be recognized if the assets, either sold or contributed, constitute a business in accordance with IFRS 3. This applies independently of whether the transaction is designed as a share deal or an asset deal. If, by contrast, the assets do not constitute a business, then the results may only be recognized proportionately. The date on which the amendments come into effect has been deferred by the IASB for an indefinite period. This amendment will have no material impact on the consolidated financial statements.

IFRS 16 "Leases". IFRS 16 contains comprehensive new regulations on the accounting for leases and replaces the previous regulations of IAS 17 Leases and several interpretations. The objective is to disclose the lessee's rights and obligations associated with the leases in the statement of financial position. Relief is planned for short-term leases and the leasing of objects of low-value. Lessors will continue having to account for leases by classifying them as either finance or operating leases, applying the criteria defined in IAS 17. Moreover, IFRS 16 contains further regulations on classification and disclosures in the Notes. Subject to its adoption into EU law, IFRS 16 is to be applied for the first time in fiscal years beginning on or after January 1, 2019. Early application is permitted insofar as IFRS 15 is also applied.

These amendments are expected to have material effects on the Group as a lessee, because the Group has primarily concluded operating leases on movable assets and real estate. From the future reporting of those contracts in the statement of financial position the Group expects, on the basis of the currently available information, a significant increase in the fixed assets and the financial debts by a mid double-digit million amount as well as an increase of the statement of financial position total and a corresponding reduction in the equity ratio. Furthermore the changed recognition of lease payments will lead to an improvement in the EBITDA by a high singledigit million amount. In the statement of cash flows, payments for operating leases will be apportioned to the cash flow from financing activities. This will also lead to an increased cash flow from operating activities compared with the provisions of IAS 17.

With regard to the scope of future leases to be recognized in the statement of financial position, we refer to Note 5.4 from page 152.

This is not expected to have any material effects for the Group as a lessor.

Amendment to IAS 12 "Recording of deferred tax claims for non-realized losses". The amendment makes it clear that an entity must consider whether tax laws restrict the sources for future taxable income, against which it can use deductions from the reversal of the corresponding, deductible temporary differences. In addition, the amendment contains guidelines on how an entity has to determine future taxable income and explains the circumstances in which future taxable income can include amounts arising from the realization of assets above their carrying amount. The amendment is to be applied for fiscal years beginning on or after January 1, 2017. Early application is allowed. This amendment will have no material impact on the consolidated financial statements.

Changes to IAS 7: Disclosure initiative. The amendment to IAS 7 Cash Flow Statements, is part of the IASB's disclosure initiative and obligates entities to provide information that enables addressees of financial statements to keep track of the changes to the debts arising from financing activities. When applying the amendments for the first time, entities do not have to give any comparison information for prior periods. This amendment is to be applied for fiscal years beginning on or after January 1, 2017. Early application is allowed. The Group intends to apply the amended standard on the specified date it comes into effect. As a result of applying the amendments the Group will provide the additional information required.

Amendments to IFRS 2: Classification and valuation of share-based payment agreements. The IASB has published an amendment to IFRS 2 "Share-Based Payment" which addresses three main areas: the effects of vesting conditions on the valuation of share-based payment transactions with cash settlement, the classification of share-based payment transactions with net fulfillment clauses with a legal obligation to the deduction of withholding tax and the accounting of share-based payment transactions with settlement in cash in the event of a modification of their conditions leading to a classification as a share-based payment transaction with equity settlement. The amendment is to be applied for fiscal years beginning on or after January 1, 2018. Early application is allowed. This amendment will have no material impact on the consolidated financial statements.

IFRS Improvements (2014 – 2016). The Annual Improvements Project has made changes to three standards. The standards affected are IFRS 1, IFRS 12 and IAS 28. The amendments to IFRS 1 cover the deletion of the remaining, temporary relief regulations for first-time users. The amendments to IFRS 12 and IAS 28 entail clarifications. The effective date is January 1, 2017 for the amendment to IFRS 12; the amendments to IFRS 1 and IAS 28 come into force on January 1, 2018. These amendments will have no material effects on the consolidated financial statements.

Amendments to IAS 40 "Investment Property". The amendment to IAS 40 relates to the classification of property which has not yet been completed and makes it clear in which cases the classification of an investment property begins or ends if the property is still under construction or in development. The amendment is to be applied for fiscal years beginning on or after January 1, 2018. Early application is allowed. This amendment will have no material impact on the consolidated financial statements.

IFRIC 22 "Foreign Currency Transactions and Prepaid Considerations". The IASB has clarified the date for calculating the exchange rate for the conversion of transactions in a foreign currency which include payments received or paid. The amendment is to be applied for fiscal years beginning on or after January 1, 2018. Early application is allowed. This amendment will have no material impact on the consolidated financial statements.

The new regulation listed below is not applicable to the Group and will therefore have no effect on the consolidated financial statements:

Amendments to IFRS 4: Application of IFRS 9 "Financial Instruments" together with IFRS 4 "Insurance Contracts"

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 that affect their recognition in the statement of financial position or in the statement of comprehensive income as well as the disclosure of contingent receivables and contingent 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. This essentially relates to:

- the assessment of impairment to goodwill (see section “Intangible Assets” from page 148),
- the definition of useful lives when valuing intangible assets, property, plant and equipment and investment property (see section “Intangible Assets” from page 148, section “Property, Plant and Equipment” from page 151 and section “Investment Property” from page 152),
- the method for valuing inventories, as well as for defining valuation routines and discounts (see section “Inventories” from page 155),
- the actuarial parameters for the valuation of provisions for pensions and similar obligations, as well as the determination of the fair value of fiduciary assets (see section “Pension Provisions and similar obligations” from page 160),
- the assumptions and methods for valuing other provisions – for example, warranty obligations, restructuring and actuarial parameters of personnel provisions (see section “Other provisions” from page 163) and
- the realizability of future tax reliefs – in particular arising from losses carried forward – in the valuation of deferred tax assets (see section “Income taxes” from page 145).

2 Consolidation Principles

2.1 The Group of Entities Consolidated

The group of entities consolidated is based on applying IFRS 10 and IFRS 11. Along with JENOPTIK AG, all significant subsidiaries have been included fully in the consolidated financial statements and one joint operation on a proportional basis. The list of shareholdings is presented in detail in note 12 from page 185.

The consolidated financial statement of JENOPTIK AG includes 31 (prior year 33) fully consolidated subsidiaries. Of which 12 (prior year 14) have their legal seat in Germany and 19 (prior year 19) have theirs abroad. The consolidated entities of the Jenoptik Group include one joint operation (prior year 1).

In the fiscal year 2016 the following fully consolidated subsidiaries were merged or have become defunct through accrual:

- JORENT Techno GmbH, Jena
- LEUTRA SAALE Gewerbegrundstücksgesellschaft mbH & Co. KG, Grünwald

Furthermore in the fiscal year 2016 the previously not consolidated JENOPTIK South East Asia Pte. Ltd., Singapore, was merged into a fully consolidated subsidiary.

Hillos GmbH, Jena, will be consolidated with a shareholding of 50 percent in accordance with IFRS 11. This entity is a strategic customer of Jenoptik, operating in the area of construction and construction-related applications of laser technology. The following assets and liabilities have been allocated to the Group:

in thousand euros	2016	2015
Non-current assets	711	810
Current assets	9,738	8,829
Non-current liabilities	30	25
Current liabilities	2,853	2,471
Income	24,637	18,612
Expenses	24,037	18,206

14 subsidiaries, of which 8 are non-operating entities, have not been consolidated as their influence on the net assets, financial position and results of operations – both individually and in total – is of minor significance. The total revenue of the non-consolidated entities amounts to about 0.2 percent of group revenue; the EBIT was around minus 0.4 percent of group EBIT. The estimated effect of consolidating all the entities on the group’s statement of financial position total is approximately 0.3 percent.

The following subsidiaries have material investments held by non-controlling shareholders:

Name	Legal seat of the entity	Non-controlling interests
JENOPTIK Korea Corporation Ltd.	Korea	33.4
JENOPTIK Japan CO. Ltd.	Japan	33.42
Vysionics Group	Great Britain	5.36

The following table summarizes the financial information of the subsidiaries mentioned above, which is based on the individual financial statements of the entities, including IFRS adjustments as well as adjustments due to the allocation of the purchase price for the Vysionics Group. Effects of the consolidation were not taken into account in this context.

in thousand euros	JENOPTIK Korea	JENOPTIK Japan	Vysionics Group
Revenue	4,403	5,094	19,772
	(4,025)	(7,326)	(22,835)
Earnings after tax	−320	2	2,122
	(−272)	(451)	(3,557)
Earnings after tax from non-controlling interests	−107	1	159
	(−91)	(151)	(286)
Total results	−320	2	2,122
	(−272)	(451)	(3,557)
Total results from non-controlling interests	−107	1	159
	(−91)	(151)	(286)
Non-current assets	175	71	5,798
	(211)	(72)	(8,977)
Current assets	2,458	2,105	7,853
	(4,154)	(3,024)	(9,078)
Non-current liabilities	0	633	24,412
	(0)	(387)	(31,901)
Current liabilities	1,465	1,298	4,895
	(2,880)	(2,473)	(6,774)
Net assets	1,168	246	−15,657
	(1,486)	(236)	(−20,620)
Net assets from non-controlling interests	390	82	−802
	(496)	(79)	(−1,656)
Cash flows from operating activities	312	25	3,791
	(−758)	(499)	(8,265)
Cash flows from investing activities	−5	0	−225
	(−131)	(0)	(−1,058)
Cash flows from financing activities	−398	−475	−2,974
	(−337)	(−249)	(−7,510)
Change in cash and cash equivalents	−90	−450	592
	(−1,225)	(250)	(−302)

Prior year figures are in parentheses

2.2 Consolidation Procedures

The assets and liabilities of domestic and foreign entities included fully or proportionately in the consolidated financial statements are recognized uniformly in accordance with the accounting policies and valuation methods applicable throughout the entire 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 as defined in IFRS 3.23 are classified as liabilities. The remaining difference between the purchase price and the acquired net assets corresponds to the goodwill. This is not subject to scheduled depreciation in the subsequent periods but instead to an annual impairment test in accordance with IAS 36.

Receivables and payables as well as income and expenses 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 intercompany 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.

There was no change in the consolidation methods applied in comparison to the prior year.

2.3 Foreign Currency Exchange Effects

Annual financial statements prepared by subsidiaries 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 in view of financial, economic and organizational concerns, the functional currency is generally identical to the currency of the country in which the subsidiary is located.

Assets and liabilities are consequently converted at the exchange rate on the reporting date, whereas income and expenses are converted at the 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 as a foreign currency reserve.

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.

Receivables and payables in the separate 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 reporting date in accordance with IAS 21. Differences arising from the foreign currency conversion are shown under other operating income or other operating expenses affecting the results and, if these result from financial transactions, are shown in financial income or financial expenses (see details on the Income Statement from page 141). This excludes currency conversion differences arising from loans which constitute a part of the net investment in a foreign operation. These differences arising from foreign currency conversions are shown under other comprehensive income outside of profit or loss.

The exchange rates used for the conversion are listed in the following table:

2.4 Entities Acquired and Sold

In the second half-year of 2016, non-controlling shareholders of JENOPTIK Holdings UK Ltd. (formerly VYSIONICS Ltd.) exercised existing put options. This resulted in Jenoptik's equity interest in JENOPTIK Holdings UK Ltd. and the companies controlled by this entity increasing from 91.97 to 94.64 percent with a corresponding reduction in non-controlling interests. The change is shown as an acquisition of non-controlling interests in the consolidated statement of changes in Equity.

On signing the agreement on January 19, 2017, and thus after the statement of financial position date, Jenoptik acquired 100 percent of the shares in Domestic and Commercial Security Limited (in the following: ESSA Technology), Saltash (Great Britain) via the British entity JENOPTIK Traffic Solutions UK Ltd. As Jenoptik holds 94.96 percent of the shares in the acquiring entity JENOPTIK Traffic Solutions UK Ltd., ESSA Technology is also consolidated in the Group with a shareholding of 94.96 percent from the time of acquisition.

The information below is based on provisional figures. Their provisional nature concerns determination of the acquired net assets in particular in terms of acquired intangible assets and determination of the purchase price with regard to finalization of the completion accounts, which influence the calculation of the purchase price and thus the purchase price allocation and the amount of goodwill to be capitalized. The provisional aspect also concerns the information regarding off-balance sheet contingent liabilities.

		Annual average exchange rate		Reporting date exchange rate	
	1 EUR =	2016	2015	2016	2015
Australia	AUD	1.4874	1.4808	1.4596	1.4897
Switzerland	CHF	1.0901	1.0642	1.0739	1.0835
China	CNY	7.3482	6.9448	7.3202	7.0608
Great Britain	GBP	0.8166	0.7241	0.8562	0.7340
Japan	JPY	120.0834	133.4325	123.4000	131.0700
Korea	KRW	1,283.5105	1,268.5484	1,269.3600	1,280.7800
Malaysia	MYR	4.5823	4.6959	4.7287	4.6959
Singapore	SGD	1.5275	1.5127	1.5234	1.5417
USA	USD	1.1061	1.1042	1.0541	1.0887

ESSA Technology specializes in software for traffic monitoring and back office solutions, particularly automatic number plate recognition (ANPR) applications for the police. The acquisition expands the Jenoptik Group's traffic safety portfolio and promotes its ongoing transformation into a supplier of integrated solutions for public safety and "smart cities".

The purchase price comprises a fixed cash component of 4,760 thousand pounds sterling (5,506 thousand euros). In turn, we acquired the following identified net assets at the point of first-time consolidation:

in thousand euros	Total
Non-current assets	1,522
Current assets	1,112
Non-current liabilities	264
Current liabilities	400

The acquired assets include receivables with a gross value of 805 thousand euros, corresponding to the full fair value. There is no expectation that the acquired receivables will be unrecoverable.

Also included in the acquired assets are cash and cash equivalents amounting to 265 thousand euros.

In connection with the acquisition of shares in ESSA Technology, the main items identified as intangible assets were a customer base, technologies, trademark rights and an order backlog. The intangible assets are depreciated over periods of between three and ten years. Goodwill in the sum of 3,536 thousand euros was also recorded for the acquisition of skilled personnel and synergy effects arising from the expansion of the range of services, which extend all the way to integrated solutions. The goodwill is to be allocated to the cash-generating Traffic Solutions unit and is not tax-deductible.

Contingent liabilities were not included in the company acquisition.

Applying the partial goodwill method, non-controlling interests in the net assets of ESSA Technology came to 99 thousand euros at the time of acquisition.

Because this date was after the balance sheet date for the past fiscal year, neither earnings nor expenses relating to ESSA Technology are included in the Jenoptik Group's statement of comprehensive income.

Costs of 148 thousand euros were incurred for the acquisition of ESSA Technology in the 2016 fiscal year and are included in the other operating expenses.

In the 2016 fiscal year no companies were sold.

2.5 Notes on Other Entities

Jenoptik holds shares in 8 (prior year 9) entities with a maximum 50 percent investment quota respectively. The investments in these entities are accounted for at fair value in accordance with IAS 39. If no reliable fair value can be determined, then the purchase price is recognized. The investments are of minor importance for the respective asset, financial and earnings situation of Jenoptik. Therefore, based on the principle of cost effectiveness and materiality, the at-equity valuation was not applied.

The investment held in a minority holding in the Optics & Life Science segment was sold in the 2016 fiscal year. The gain from the sale was accounted for in other operating income. Cash inflows are disclosed in the statement of cash flows as proceeds from sale of investment entities.

The general disclosures regarding the investments held are contained in the list of shareholdings of the Jenoptik Group.

2.6 Discontinued Operations

Discontinued activities are material definable operations which have either been sold or are planned to be sold. A breakdown of the income and expenses relating to discontinued activities is shown in the income statement – after the result of continuing operations. In the prior year this was shown in separate lines within the income statement. The prior year's figures for the income statement were adjusted accordingly.

Detailed information on the discontinued operations is provided in section 4.14 from page 147.

3 Accounting Policies and measurement methods

3.1 Goodwill

The accounting rules of IFRS 3 are to be used for all business combinations.

Goodwill as stated in IFRS 3 corresponds to the positive difference between the consideration for a business combination and the newly acquired, revalued assets and liabilities, including certain contingent liabilities, remaining after a purchase price has been allocated and intangible assets, which have consequently been identified. 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.

In accordance with IFRS 3, negative differences arising from the capital consolidation are recognized immediately through profit or loss in other operating income.

3.2 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 depreciation on a straight-line basis over their economic useful lives. This is generally a period of between three and ten years. The Group reviews its intangible assets with finite useful lives to determine whether there is any impairment loss (see section 5.1 "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 patents are subject to schedule depreciation on a straight-line basis over their economic useful lives which are basically 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 are plans for production, own use or marketing. Furthermore, it is assumed that, if capitalized, there is a reasonable 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 depreciation over the anticipated period during which the products are sold – but no longer than five years. In this context, the acquisition and manufacturing costs cover all the costs directly attributable to the development process as well as appropriate portions of the general and administrative expenses related 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 income statement.

IAS 38 requires research costs to be recognized as current expenses in research and development expenses.

3.3 Property, Plant and Equipment

Property, plant and equipment are valued at acquisition and manufacturing cost, less scheduled, straight-line depreciation. The depreciation method reflects the anticipated pattern of consumption of the future economic benefits. Where necessary, impairment losses reduce the amortized acquisition and production costs. In principle, government grants 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.

Scheduled depreciation is essentially based on the following useful lives:

	Useful life
Buildings	20 – 80 years
Machinery and technical equipment	4 – 20 years
Other equipment, operating and office equipment	3 – 10 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.

3.4 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 cash-generating units are identified, impairment tests are performed on these assets.

The demarcation between cash-generating units is primarily based on the structure of the business units constituting divisions.

An impairment test is performed by first determining the recoverable amount of an asset or cash-generating unit and then comparing it with the carrying amount in order to identify if there is any need for an impairment test.

The recoverable amount is the higher of an asset's fair value less costs to sell and its value in use.

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 expected 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 then depreciated to the recoverable amount. An impairment loss is recognized immediately through 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 of the impairment loss reversal 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. An impairment loss reversal is immediately recorded through profit or loss.

3.5 Government Grants

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

In general, IAS 20 states that grants are to be accounted for through profit or loss in the same period as the relevant expenses.

In the Jenoptik Group a grant for a non-current asset is deducted from the acquisition costs. Correspondingly, the amount to be written off is determined on the basis of the reduced acquisition costs.

3.6 Leases

When using leased items of property, plant and equipment, the conditions for finance leases as defined in IAS 17 "Leases" are fulfilled if all material risks and opportunities incidental to ownership have been transferred to the respective consolidated entity of the Group. All other leases are classified as operating leases.

Finance leases. The Group, as a lessee of the finance lease, capitalizes the assets leased at the inception of the lease at the amount equal to their fair value, or if lower, the current value of the minimum lease payments. The straight-line depreciation method is to be used to write off the asset over the period of its economic useful life or the shorter term of the lease agreement if it is unlikely that an option to purchase the asset will be exercised. Liabilities from finance lease agreements are shown at the current value of the minimum lease payments.

If the Group is a lessor, the amount equal to the net investment in the lease is to be capitalized as a receivable. Financial income is recognized through profit or loss in the respective reporting period, so that there is a constant periodic return on the net investment.

Operating leases. Lease payments from operating leases are recognized through profit or loss on a straight-line basis over the term of the corresponding lease.

Any incentives received or outstanding for entering into an operating lease agreement are also recognized on a straight-line basis over the term of the lease.

3.7 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 option of IAS 40 "Investment Property", such assets are to be accounted for at amortized acquisition or production costs (see page 152). The basis for determining the stated fair value is standard land values or the application of 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 charged 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 from a prior period cease to exist, corresponding write ups are recorded.

3.8 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 a financial instrument agreement.

The treatment of existing financial instruments depends on their classification: "receivables and loans" are recognized at amortized acquisition costs and "available-for-sale financial assets" are recognized at fair value.

The amortized acquisition costs of a financial asset or a financial liability are 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 allocation of any difference between the initial amount and the amount repayable on maturity (e.g. discounts 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 procurement costs 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 determined 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 checking confirmations issued by the banks that sold the instruments.

a) Primary financial instruments

Shares in entities

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

Within the Jenoptik Group all shares in publicly listed subsidiaries and shareholdings in publicly listed stock corporations which have not been fully consolidated and have also not been accounted for at equity in the consolidated financial statements, are classified as "available-for-sale" and in subsequent reporting periods are valued at fair value without deducting any transaction costs. Value adjustments to "available-for-sale financial assets" are recognized not through profit or loss but in other comprehensive income. In the case of a permanent impairment loss, this is to be recognized through profit or loss.

Shareholdings in subsidiaries not publicly listed and other investments are also generally classified as "available-for-sale financial assets". However, these are to be shown at their respective acquisition costs since there is no active market for such entities and the carrying amounts represent a reasonable approximation of the fair values. As far as there are any indications of lower fair values, these are recognized.

Loans

Loans involve credit granted by the Jenoptik Group and are to be valued at the amortized acquisition costs in accordance with IAS 39.

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. The carrying amounts are reduced through the use of an impairment loss account.

Securities

Securities belong to the category of "available-for-sale financial assets" and are recognized at fair value. They are valued until sold and reported outside of profit or loss under other comprehensive income, taking deferred taxes into consideration. When securities are sold or if a material or permanent impairment loss occurs, the cumulative profit or loss that had been accounted for directly in equity is reclassified in the profit or loss of the current reporting period. The initial valuation is recorded at the settlement date at acquisition costs which reflect the fair value.

Trade Receivables

Trade receivables are non-interest bearing due to their being short term and are recognized at nominal value less impairment losses on the basis of anticipated bad debts. In this context, consideration is given to both the individual default risk as well as a general default risk derived from past events for a group of receivables with comparable default risks (portfolio-based impairment) when setting up an impairment loss account. When the loss of a trade receivable is finally realized, the receivable is booked out by consuming any impairment previously recognized.

Other Receivables and Assets

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

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

Current Financial Investments

Current financial assets – with the exception of securities – are included in the category "financial investments held to maturity" or "loans and receivables" and are valued at amortized acquisition costs.

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 accounted for at their nominal value.

Financial Liabilities and Equity Instruments

In principle, financial liabilities are valued at amortized procurement 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.

Liabilities from finance lease agreements are shown at the current value of the minimum lease payments.

An equity instrument is any contractual agreement containing a residual interest in the assets of the Group after all liabilities have been deducted. Issued shares 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 repayments 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

Within the Jenoptik Group, derivative financial instruments are used 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 values are determined on the basis of 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 governed by group guidelines which are authorized by the Executive Board and represent a fixed written guideline on 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.

3.9 Inventories

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

Net realizable value is the estimated proceeds from sale less the estimated production costs and any costs incurred up to sale.

Acquisition costs also include any other costs incurred to restore the inventories to their current condition. Any reductions in purchase prices such as rebates, bonuses or trade discounts are taken into account.

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 due to lower prices on the sales market, then these are recognized. In principle, similar inventory assets are valued using the average cost method. If the reasons that led to a write-down of inventories cease to exist and in turn result in an increase of their net realizable value, reversals of write-downs are recognized as a reduction in material expenses in the corresponding periods in which the reversal of the write-downs occurs.

3.10 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.

3.11 Advances Received

Advance payments received from customers are recognized as liabilities as far as such payments do not relate to construction contracts.

3.12 Construction Contracts

In accordance with IAS 11 "Construction Contracts", revenue and profits from construction contracts are recognized according to the "Percentage of Completion Method". The percentage of completion is generally derived from the ratio between the actual construction costs incurred up to the end of the fiscal year and the currently estimated total contract costs ("Cost-to-Cost Method"). Losses arising from construction contracts are immediately and fully recognized in the fiscal year in which they are identifiable.

Construction contracts valued according to the percentage of completion method are recognized as receivables or payables arising from construction contracts, depending on the amount of the progress payments received or progress billings outstanding. They are valued at construction costs plus any proportion of income received corresponding to the percentage of completion. Insofar as the cumulative services rendered (construction costs and construction outcome) exceed the progress payments and advances received in individual cases, construction contracts are shown under receivables from construction contracts. If, after deducting progress payments and advances received, there is a negative balance, this is shown as a payable under liabilities from construction contracts. Any anticipated contract losses are taken into account as write-downs or provisions. They are determined by considering all identifiable risks.

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 valuation 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 both the pension obligations of the Jenoptik Group as well as defined benefit and 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. Actuarial expert opinions are annually obtained for this procedure.

The mortality rates are determined in accordance with the Heubeck guideline mortality tables 2005 G. Actuarial gains and losses are not recognized through profit or loss but 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.

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. Any other taxes to be assessed are considered in the same manner.

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. Discounting is based on interest rates before taxes that reflect current market expectations with regard to the interest effect as well as the risks specific to the liability and that depend on the corresponding term of the obligation. The interest portion of the compounded interest in a provision is recorded 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 warranties and guarantees are set aside on the date of the sale of the corresponding goods or date on which the corresponding services are rendered. 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 Payment

The long-term incentive components (LTI) for the current members of the Executive Board as well as for some members of the JENOPTIK AG top management are accounted for as share-based payments settled in cash as defined in IFRS 2 "Share-based Payment". At the balance sheet date and depending upon the contractual provisions, a long-term liability is set aside in the amount either of the pro rata or full fair value of the payment obligation. Granting of virtual shares is made on the basis of the annual target agreement. Changes in fair value are recognized through profit or loss.

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 in section "Contingent Liabilities" from page 178.

3.19 Revenue

Revenue generated from the sale of goods is recognized through profit or loss as soon as all material risks and rewards associated with the ownership of the goods have been transferred to the buyer, a price is agreed or can be determined and the payment thereof can be assumed. The payments charged to the customers for the goods and services – less sales deductions and trade discounts – are shown under revenue.

Revenue from services is recorded in accordance with the percentage of completion of the order at the balance sheet date. The percentage of completion of the order is determined on the basis of the services rendered. Income is only recognized if there is sufficient probability that the entity will receive the economic benefit associated with the contract. Otherwise, income is only recognized to the extent that expenses incurred are refundable.

If a contract consists of various separate elements (multi-component contract), they are recognized separately according to the above mentioned principles.

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

3.20 Cost of Sales

The cost of sales shows the costs incurred to generate the revenue. This item also includes the costs for setting aside provisions for warranties and guarantees. The scheduled depreciation on intangible assets, property, plant and equipment is shown in accordance with the principle of cause and included in the cost of sales insofar as it is attributable to the production process. Research and development expenses which do not qualify for being capitalized are shown under research and development expenses.

3.21 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.

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

3.22 Other Operating Income and Expenses

Income from the reversal of provisions is recognized through profit or loss. Insofar as the underlying provisions were set aside in the functional costs, the provision reversals are also allocated to the corresponding functional costs. If a provision is set aside in other operating expenses, the reversal of the provision is also shown under other operating expenses.

Other taxes are allocated to other operating expenses.

3.23 Financial Income and Financial Expenses

The financial income and financial expenses of the Group mainly comprise interest income and interest expenses. Furthermore, these items include currency exchange gains and losses arising from financial assets and liabilities, net gains or losses arising from hedging instruments for these financial assets and liabilities, as well as reclassifications of net gains and losses arising from such hedging instruments previously recorded under other comprehensive income. In addition, the financial income and financial expenses include net gains and losses arising from the measurement of the fair value of contingent considerations that are classified as financial liabilities.

4 Disclosures on the Statement of Income

4.1 Revenue

In comparison to 2015, revenue increased overall by 16,132 thousand euros or 2.4 percent to 684,769 thousand euros and mainly resulted from sales of goods:

in thousand euros	2016	2015
Sales of goods	583,838	573,063
Services rendered	98,969	92,751
Rental income	1,961	2,823
Total	**684,769**	**668,637**

The item revenue comprised revenue from construction contracts accounted for in accordance with their percentage of completion at the reporting date in the sum of 9,437 thousand euros (prior year 7,360 thousand euros) for the fiscal year 2016. For these construction contracts, progress billings sent to customers amounted to 4,000 thousand euros (prior year 5,404 thousand euros).

Revenue for construction contracts not yet completed as at the balance sheet date arising from the fiscal year 2016 and from previous years, totaled 18,582 thousand euros (prior year 9,144 thousand euros).

Detailed disclosures on revenue according to segment and region are shown in the Segment Report from page 169 on.

4.2 Cost of Sales

in thousand euros	2016	2015
Cost of materials	269,026	268,975
Personnel expenses	134,205	127,730
Depreciation and amortization	21,390	21,238
Other cost of sales	22,295	24,525
Total	**446,915**	**442,468**

In comparison to 2015 cost of sales increased overall by 4,447 thousand euros or 1.0 percent and totaled 446,915 thousand euros. Cost of sales show the costs incurred to generate revenue. In addition this item records the costs for setting aside provisions for sales-related transactions as well as the costs for development services on behalf of customers.

As in the prior year, cost of sales did not contain any unscheduled impairment costs for intangible assets nor for property, plant and equipment. The unscheduled impairment losses are reported in other operating expenses.

Cost of sales for construction contracts not yet completed as at the balance sheet date, arising from the fiscal year 2016 and from previous years, totaled 16,619 thousand euros (prior year 8,488 thousand euros). The profit generated from these totaled 1,962 thousand euros (prior year 656 thousand euros) a loss in the sum of 2,488 thousand euros was reported, (prior year 2,285 thousand euros).

4.3 Research and Development Expenses

Compared to the 2015 fiscal year, research and development expenses have increased overall by 524 thousand euros or 1.3 percent to 42,298 thousand euros.

These cover all expenses attributable to research and development activities. The expenses paid by customers in connection with research and development services in the sum of 15,013 thousand euros (prior year 10,908 thousand euros) are not included in this item in the statement of income. Such expenditures were allocated to cost of sales.

Costs for not yet completed development projects were capitalized within other intangible assets in the amount of 78 thousand euros.

As in the prior year, research and development expenses did not contain any impairments.

4.4 Selling Expenses

In comparison to 2015, selling expenses increased overall by 1,007 thousand euros or 1.4 percent and totaled 73,598 thousand euros.

Selling expenses include personnel expenses and the cost of materials as well as sales-related depreciation. They also include the expenses for sales commissions as well as marketing and communication.

4.5 General Administrative Expenses

Compared to the prior year, general administrative expenses in 2016 rose by 3,586 thousand euros or 6.6 percent to 57,583 thousand euros. General administrative expenses include personnel expenses and the cost of materials as well as administration-related depreciation.

4.6 Expenses According to Types of Expense

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

in thousand euros	2016	2015
Material costs	284,574	281,511
Personnel expenses	246,127	239,629
Depreciation and amortization	27,151	28,770
Other expenses	62,542	60,921
Total	**620,394**	**610,830**

4.7 Other Operating Income

in thousand euros	2016	2015
Foreign currency exchange gains	8,910	8,639
Income from reversed bad debt allowances	6,058	4,069
Income from government grants	1,783	2,886
Income from services, offsets and rentals	1,627	2,565
Income from non-cash contributions	1,079	1,364
Gains from the sale of investment companies	1,070	1,916
Income from impairment reversals of properties	439	1,986
Income from damage claims/insurance benefits	239	283
Income from the sale of intangible assets, property, plant and equipment and investment property	153	580
Income from the sale of materials	72	691
Miscellaneous	1,944	2,040
Total	**23,374**	**27,019**

Other operating income in 2016 was reduced by 3,645 thousand euros and thus by 13.5 percent to 23,374 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. Currency exchange losses from these items are shown under other operating expenses.

The reversal of impairments of receivables has been recorded through profit or loss on the basis of payments received for overdue receivables.

Income from government grants generally contained grants for research and development projects that Jenoptik received from the Federal Ministry for Education and Research.

Income from services, clearing and rental is not derived from the company's common business activities.

Income from the sale of investment companies was generated with the sale of a minority investment in the Optics & Life Science segment.

The item Miscellaneous includes income from various sources, among which were income from works canteens, derecognition of liabilities and refunds from other taxes.

4.8 Other Operating Expenses

in thousand euro	2016	2015
Foreign currency exchange losses	8,770	7,923
Expenses for services and rentals	3,049	2,697
Expenses from increase of bad debt allowances for receivables and bad debt losses	2,476	5,144
Losses from disposals of intangible assets, property, plant and equipment and investment property	1,845	883
Impairments of intangible assets, property, plant and equipment and investment property	1,313	761
Expenses for group projects	1,064	747
Amortization of intangible assets from a first-time consolidation	441	517
Other taxes	285	523
Acquisition costs	148	0
Reorganization and restructuring expenses	0	2,667
Additions/reversals of provisions	−557	−2,664
Miscellaneous	2,705	4,581
Total	**21,540**	**23,777**

Other operating expenses fell by 2,237 thousand euros or 9.4 percent compared with the prior year, to 21,540 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 receivables or payables, as well as from the valuation at the exchange rate on the reporting date. Exchange rate gains resulting from these items are recognized under other operating income. From the net viewpoint, foreign currency gains and losses led to a net gain of 140 thousand euros (prior year 716 thousand euros).

The expenses arising from the increase of bad debt allowances for receivables, as well as the recording of bad debts have fallen significantly compared to the previous year. This is primarily attributable to an improvement in receivables management.

The losses arising from disposals of intangible assets, property and equipment and investment property include disposals in the sum of 1,139 thousand euros of unused and fundamentally revised components of the JOE project (JENOPTIK One ERP).

The impairments of intangible assets, property, plant and equipment and investment property primarily included an impairment to the rented part of a mixed-use property. More information on these items can be found in section "Property, Plant and Equipment" from page 151 on.

The expenses for group projects relate essentially to the JOE project, as well as various special projects in the areas of IT, accounting and taxes as well as controlling.

In the prior year, the item reorganization and restructuring expenses chiefly contained additions to provisions for severance payments in connection with the restructuring of the laser business activities of JENOPTIK Laser GmbH in Jena.

The addition to and reversal of provisions include additions in the sum of 2,141 thousand euros (prior year 251 thousand euros) as well as reversals in the sum of 2,698 thousand euros (prior year 2,915 thousand euros). More information on these items can be found in section "Other provisions" from page 163 on.

The item Miscellaneous mainly included expenses arising from passing on charges, expenses for running works canteens, legal and consulting fees, as well as numerous individual items.

4.9 Investment income

in thousand euro	2016	2015
Impairments and impairment reversals of financial investments	−1,172	1,295
Earnings from investments	1,475	263
Total	**303**	**1,558**

The investment income in 2016 fell by 1,255 thousand euros to 303 thousand euros.

Impairment losses on financial investments in the fiscal year amounted to 1,832 thousand euros and mainly comprised impairment losses on available-for-sale financial assets and loans. Impairment reversals were recorded on financial investments in the sum of 660 thousand euros and relate to a loan as well as an investment which was sold in the fiscal year.

Earnings from investments include dividends from investment companies in the sum of 1,705 thousand euros (prior year 356 thousand euros) and losses in the sum of minus 230 thousand euros (prior year minus 93 thousand euros) from profit transfer agreements with non-consolidated entities.

4.10 Financial Income and Financial Expenses

in thousand euros	2016	2015
Income from measuring financial instruments in foreign currencies	3,980	4,320
Income from financial asset securities and loans	39	292
Income from financial instrument remeasurements	0	608
Other interest and similar income	384	250
Total financial income	**4,403**	**5,469**
Expenses for measuring financial instruments in foreign currencies	4,392	2,501
Interest expenses for debenture loans	1,979	2,364
Interest expenses for syndicated loan	842	817
Net interest expenses for pension provisions	689	486
Expenses from financial instrument remeasurement	643	0
Expenses for restructuring debenture loans	0	1,370
Expenses for recycling derivatives on interest rate hedges	0	604
Other interest and similar expenses	1,346	2,676
Total financial expenses	**9,892**	**10,819**
Total	**−5,488**	**−5,350**

The net balance of financial income and financial expenses reduced by 139 thousand euros or 2.6 percent to minus 5,488 thousand euros (prior year minus 5,350 thousand euros).

Income from the valuation of financial transactions in the sum of 3,980 thousand euros (prior year 4,320 thousand euros) and corresponding expenses in the sum of 4,392 thousand euros (prior year 2,501 thousand euros) led to a net loss in the fiscal year 2016 of 412 thousand euros (prior year net gain of 1,819 thousand euros). This result is derived from the foreign currency exchange gains and losses arising from the valuation of financial investments which are issued in foreign currencies, less the valuation of the respective derivatives.

Interest derivatives were concluded in order to hedge risks of interest rates changing. The changes in market value are recorded through profit or loss in the financial result and included in the item other interest and similar income.

The item other interest and similar income also primarily includes interest income from bank deposits.

Costs arising from the remeasurement of the fair value of financial instruments include the valuation of the put option agreed as part of the acquisition of the Vysionics Group.

The item other interest and similar expenses includes guaranty and bank charges as well as interest expenses from accrued interest of non-current liabilities and other provisions.

4.11 Income Taxes

Income taxes are shown as the current income tax (paid or owing) in the respective countries as well as deferred tax assets and deferred tax liabilities. The calculation of the current income taxes of the Jenoptik Group was performed by using the tax rates valid at the balance sheet date.

The calculation of the deferred taxes for domestic entities was based on a tax rate of 29.9 percent (prior year 29.9 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 business tax rate of 14.1 percent (prior year 14.1 percent) is taken into account. The calculation of deferred taxes for foreign entities was based on the tax rates applicable in the respective country.

Deferred taxes are recognized as either tax income or tax expenses in the statement of comprehensive income, unless these directly relate to items 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.

Tax expenses were classified according to origin as follows:

in thousand euros	2016	2015
Current income taxes		
Domestic	4,952	3,043
Foreign	4,164	2,741
Total	**9,116**	**5,784**
Deferred taxes		
Domestic	−4,150	−1,244
Foreign	2,320	2,976
Total	**−1,830**	**1,732**
Total income tax	**7,286**	**7,516**

The item current income taxes include an expense in the sum of 174 thousand euros (prior year 0) for discontinued operations.

The item current income taxes include an income in the sum of 367 thousand euros (prior year expense of 183 thousand euros) for current taxes from earlier business periods. Deferred tax income (prior year expense) includes income relating to a different period in the sum of 867 thousand euros (prior year income 782 thousand euros).

Deferred tax income (prior year expense) includes an expense in the sum of 1,440 thousand euros (prior year expense 481 thousand euros) resulting from the development of timing differences.

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

in thousand euros	31/12/2016	31/12/2015
Corporate income tax	341,185	363,935
Trade tax	500,829	528,970

Of which the following is subject to time limit on losses carried forward:

in thousand euros	31/12/2016	31/12/2015
1 year or less	457	198
2 years to 5 years	2,970	3,125
6 years to 9 years	2,900	2,753
More than 9 years	741	657
Total of losses carried forward subject to time limit	7,068	6,733

The reduction in tax losses carried forward mainly resulted from their being used in the reporting period. Taking all currently known positive and negative factors influencing future tax results of the Jenoptik Group into consideration, the use of a corporation tax loss carried forward of 168,488 thousand euros (prior year 154,059 thousand euros) and the use of a trade tax loss carried forward of 169,884 thousand euros (prior year 159,405 thousand euros) are anticipated.

A deferred tax claim of 51,101 thousand euros (prior year 47,145 thousand euros) is recognized for unused tax losses carried forward. Of which 23,911 thousand euros (prior year 22,436 thousand euros) is attributable to tax losses carried forward for trade tax.

For the remaining losses carried forward, no deferred tax assets are recognized for corporation tax purposes in the sum of 172,697 thousand euros (prior year 209,876 thousand euros) and for trade tax purposes in the sum of 330,945 thousand euros (prior year 369,565 thousand euros).

In addition, no deferred tax assets are shown for allowable timing differences in the sum of 9,396 thousand euros (prior year 14,437 thousand euros) as these will probably not be realized in the underlying reporting period.

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

	Deferred tax assets		Deferred tax liabilities	
in thousand euros	31/12/2016	31/12/2015	31/12/2016	31/12/2015
Intangible assets	1,122	1,190	1,962	2,687
Property, plant and equipment	1,791	1,796	1,776	2,279
Financial assets	687	2,391	48	1,553
Inventories	9,278	8,006	28	57
Receivables and other assets	1,841	4,378	2,814	2,020
Provisions	12,558	12,423	320	449
Liabilities	3,281	3,144	1,118	1,540
Tax losses carried forward and tax refunds	51,641	48,873	0	0
Gross value	**82,199**	**82,201**	**8,066**	**10,585**
(thereof non-current)	(59,860)	(59,715)	(5,141)	(7,857)
Offset	−7,976	−8,599	−7,976	−8,599
Value presented on the statement of financial position	**74,223**	**73,602**	**90**	**1,986**

The net balance of the asset surplus in deferred tax assets increased by 2,517 thousand euros. Taking into consideration the deferred taxes (409 thousand euros) recognized outside of profit or loss when offset in the reporting year, as well as the foreign currency exchange conversions (278 thousand euros), the result is a deferred tax income of 1,830 thousand euros shown in the statement of comprehensive income.

Temporary differences in the amount of 75,577 thousand euros (prior year 79,617 thousand euros) are associated with investements in subsidiaries for which no deferred tax liabilities are recognized.

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 2016 the applicable group tax rate of 29.9 percent (prior year 29.9 percent) is multiplied by the earnings before tax.

in thousand euros	2016	2015
Earnings before tax – continuing operations	61,024	57,256
Earnings before tax – discontinued operations	3,719	175
Earnings before tax	64,743	57,431
Corporate income tax rate for the Jenoptik Group in %	29.9	29.9
Expected tax expense	**19,358**	**17,172**
Following tax effects resulted in the difference between the actual and the expected tax expense:		
Non-deductible expenses, tax-free income and permanent deviations	906	−323
Changes in impaired deferred taxes and unrecognized deferred taxes	−12,772	−9,081
Effects resulting from tax rate differences	992	175
Effects of tax rate changes	−66	20
Taxes for prior years	−1,234	−599
Other tax effects	102	152
Total adjustments	**−12,072**	**−9,656**
Actual tax expense	7,286	7,516
Actual tax expense – continuing operations	**7,112**	**7,516**
Actual tax expense – discontinued operations	174	0
Actual tax expense	7,286	7,516

4.12 Earnings of Non-controlling Interests

The result of the non-controlling interests in the consolidated result is 53 thousand euros (prior year 345 thousand euros) and relates to the non-controlling interests of JENOPTIK Korea Corporation Ltd., JENOPTIK Japan Co. Ltd. and the Vysionics Group.

More information on the entities with non-controlling interests is available in section 2.1 "The Group of Entities Consolidated" from page 130 on.

4.13 Earnings attributable to shareholders

in thousand euro	2016	2015
Earnings attributable to shareholders – continuing operations	53,858	49,395
Earnings attributable to shareholders – discontinued operations	3,545	175
Earnings attributable to shareholders – Group	**57,403**	**49,570**

4.14 Earnings from Discontinued Operations

Individual, economic subjects which JENOPTIK AG had regarding the sale of M+W Zander Holding AG in 2005 have now been concluded. A final agreement on purchase price-related facts was reached in the fiscal year 2016, leading to an overall claim for payment on the part of Jenoptik. The resulting income including interest in the sum of 3,444 thousand euros is shown separately in discontinued operations. Income taxes of minus 174 thousand euros were incurred in connection with this transaction.

The cash flow was affected in the sum of 2,770 thousand euros (prior year 175 thousand euros).

4.15 Earnings per Share

Earnings per share corresponds to the earnings attributable to shareholders divided by the weighted average of outstanding shares of 57,238,115 units (prior year 57,238,115 units).

	2016	2015
Earnings per share in euros – continuing operations	0.94	0.86
Earnings per share in euros – discontinued operations	0.06	0.00
Earnings per share in euros – Group (undiluted = diluted)	**1.00**	**0.87**

5 Disclosures on Statement of Financial Position

5.1 Intangible Assets

in thousand euros	Development costs from internal development projects	Acquired patents, rademarks, software licenses, customer relationships	Internally generated patents	Goodwill	Other intangible assets	Total
Acquisition or production costs Balance at 1/1/2016	**14,213**	**70,333**	**1,578**	**109,911**	**1,268**	**197,302**
	(16,445)	**(66,654)**	**(1,573)**	**(106,833)**	**(1,571)**	**(193,077)**
Foreign currency exchange effects	−18	−1,024	0	−5,713	0	−6,755
	(19)	(906)	(0)	(2,804)	(2)	(3,730)
Changes in the group of entities consolidated	0	0	0	0	0	0
	(0)	(−39)	(0)	(273)	(0)	(234)
Additions	0	1,728	242	0	1,025	2,994
	(365)	(3,135)	(230)	(0)	(570)	(4,300)
Disposals	0	4,021	150	0	167	4,338
	(2,616)	(765)	(230)	(0)	(455)	(4,066)
Reclassifications (+/-)	0	393	18	0	−327	83
	(0)	(442)	(5)	(0)	(−420)	(27)
Acquisition or production costs Balance at 31/12/2016	**14,194**	**67,408**	**1,688**	**104,197**	**1,800**	**189,288**
	(14,213)	**(70,333)**	**(1,578)**	**(109,911)**	**(1,268)**	**(197,302)**
Amortization and impairments Balance at 1/1/2016	**13,058**	**50,921**	**693**	**9,894**	**0**	**74,566**
	(13,845)	**(45,151)**	**(764)**	**(9,892)**	**(162)**	**(69,814)**
Foreign currency exchange effects	−19	−253	0	1	0	−271
	(13)	(377)	(0)	(2)	(0)	(392)
Changes in the group of entities consolidated	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)
Additions	423	5,979	135	0	0	6,537
	(1,152)	(6,151)	(135)	(0)	(0)	(7,438)
Impairments	0	9	0	0	0	9
	(253)	(0)	(0)	(0)	(93)	(346)
Disposals	0	2,925	50	0	0	2,975
	(2,206)	(759)	(206)	(0)	(255)	(3,425)
Reclassification (+/-)	0	−70	0	0	0	−69
	(0)	(0)	(0)	(0)	(0)	(0)
Amortization and impairments Balance at 31/12/2016	**13,462**	**53,801**	**778**	**9,895**	**0**	**77,936**
	(13,058)	**(50,921)**	**(693)**	**(9,894)**	**(0)**	**(74,566)**
Net carrying amount at 31/12/2016	**732**	**13,608**	**909**	**94,303**	**1,800**	**111,352**
	(1,155)	**(19,412)**	**(885)**	**(100,017)**	**(1,268)**	**(122,737)**

Prior year figures are in parentheses.

In the prior year, under IFRS 3 there was a change in the valuations of the intangible assets identified during the acquisition of JENOPTIK Holdings UK Ltd. (formerly: Vysionics Ltd.) as well as the goodwill resulting from the finalization of the initial consolidation. These changes are shown separately as changes in the group of entities consolidated.

For more detailed information on the disposal of patents, trademarks, software and customer relationships we refer to the explanations in Note 4.8 “Other operating expenses” on page 143.

As in the prior year, intangible assets were not subject to any disposal restrictions. The order commitments for intangible assets total 242 thousand euros (prior year 390 thousand euros).

Additions to other intangible assets include capitalized expenses for internally generated assets in the sum of 106 thousand euros (prior year 805 thousand euros), of which 78 thousand euros is attributable to development costs arising from internal development projects and 28 thousand euros to internally generated patents. On completion of the internal development project respectively granting of the patent a transfer into the corresponding group of intangible assets is recorded.

Other than goodwill, there are no intangible assets with an indefinite useful life.

A new group structure came into effect on January 1, 2016, wherein business activities were realigned and focused more on growth markets. In the course of this reorganization, the cash-generating units benefiting from the synergies embodied by goodwill were restructured. This led to goodwill being reallocated to the cash-generating units existing since 2016. The following disclosures for prior year were adjusted accordingly.

As at December 31, 2016 goodwill amounted to 94,303 thousand euros (prior year 100,017 thousand euros). The change in the carrying amounts in the sum of minus 5,714 thousand euros is attributable exclusively to currency effects (prior year 2,802 thousand euros). The figure in the prior year also included a change in the goodwill in the sum of 273 thousand euros arising from the finalization of the initial consolidation of the Vysionics Group.

As in the prior year, no impairments were required for goodwill in the 2016 fiscal year.

The following table summarizes the goodwill for each cash-generating unit according to segment:

in thousand euros	31/12/2016	31/12/2015
Optics & Life Science		
Optical Systems	1,662	1,609
Healthcare & Industry	41,284	41,262
Mobility		
Automotive	4,597	4,564
Traffic Solutions	38,839	44,662
Defense & Civil Systems	7,921	7,920
Total	**94,303**	**100,017**

The following table represents the allocation of goodwill to the segments by percentage:

in %	31/12/2016	31/12/2015
Optics & Life Science	46	43
Mobility	46	49
Defense & Civil Systems	8	8
Total	**100**	**100**

The impairment test for goodwill is performed at the level of the cash-generating units benefiting from the synergies of the respective business combination and representing the lowest level at which goodwill is monitored for internal company management. If the carrying amounts of these cash-generating units exceed their recoverable amounts, the goodwill allocated is correspondingly reduced. The determining factor for the impairment test is 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 calculates the recoverable amount as value in use on the basis of a discounted cash flow method. The basis for this is the five-year corporate plan approved by the Management and presented to the Supervisory Board. This takes past experience into consideration and is based on the best estimates of management on future development. The cash flows in the detailed planning phase are planned on the basis of differential growth rates. These take into account the development and dynamics of the relevant sectors and target markets. For the Healthcare & Industry (HCI) section as part of the

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Optics & Life Science segment a sustainable revenue growth parallel with the segment is anticipated. After the restructuring in an area of HCI in the past fiscal year it is as well reckoned with an increase in profitability mainly due to more efficient processes and increased usage of synergies. In the section Traffic Solutions (TS) as part of the Mobility segment also a long-term revenue increase is assumed. Profitability will rise by further improvements in structures and processes, an increase in local value added and growth of the service business (TSP). Besides the planned revenue increase the segments also anticipate a lasting positive development of EBIT in the planning period. In addition, the planning is carried out group-wide under the assumption of a continuing process of internationalization and regionalization, with an increase in the share of revenue and value added in the growth regions of the Americas and Asia / Pacific. In order to determine the future development of working capital, differentiated ranges are applied. At the same time, the earnings for the respective planning year are adjusted for the calculation of free cash flow by non-cash income and expenses such depreciation and amortization. Currency effects are negligible overall.

A perpetual annuity is assumed, the amount of which is individually derived by management from the fifth year of the planning time frame for each cash-generating unit. The perpetual annuity includes a growth component in the form of a deduction on the capitalization interest rate of between 0.9 and 1.1 percentage point (prior year 0.9 to 1.1 percentage point). 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 necessary for impairment testing 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 peer groups and 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 5.81 and 8.25 percent (prior year 5.51 to 7.44 percent). This corresponded to the weighted average cost of capital before taxes at a rate between 7.54 and 11.21 percent (prior year 7.43 to 11.24 percent).

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

	Growth component in perpetual annuity	Weighted average cost of capital after taxes	Weighted average cost of capital before taxes
Optical Systems	1.00	7.41	10.67
	(1.00)	(7.44)	(11.24)
Healthcare & Industry	1.10	8.25	11.21
	(1.10)	(7.43)	(9.83)
Automotive	1.00	5.82	8.12
	(0.90)	(5.80)	(8.11)
Traffic Solutions	1.00	5.81	7.54
	(0.90)	(5.84)	(7.43)
Defense & Civil Systems	0.90	6.00	8.32
	(0.90)	(5.51)	(7.71)

Prior year figures are in parentheses.

Sensitivity analyses were performed for all cash-generating units to which goodwill was allocated as at December 31, 2016. A reduction in the cash flows or an increase in the weighted cost of capital within the range considered by the management as likely would not cause the recoverable amount being less than the carrying amount of the cash-generating unit.

5.2 Property, Plant and Equipment

in thousand euros	Land and buildings	Technical equipment and machinery	Other equipment, operating and office equipment	Assets under construction	Total
Acquisition or production costs Balance at 1/1/2016	**151,279**	**174,859**	**99,309**	**3,962**	**429,408**
	(141,000)	**(167,802)**	**(94,251)**	**(8,676)**	**(411,729)**
Foreign currency exchange effects	302	−640	154	328	145
	(1,227)	(2,764)	(454)	(79)	(4,524)
Additions	3,008	4,870	5,492	11,068	24,438
	(947)	(8,860)	(7,295)	(3,265)	(20,366)
Disposals	474	8,177	7,534	37	16,222
	(471)	(10,589)	(3,109)	(32)	(14,200)
Reclassifications (+/-)	835	1,729	751	−3,051	264
	(8,576)	(6,022)	(418)	(−8,025)	(6,991)
Acquisition or production costs Balance at 31/12/2016	**154,950**	**172,641**	**98,171**	**12,271**	**438,032**
	(151.279)	**(174,859)**	**(99,309)**	**(3,962)**	**(429,408)**
Depreciation and impairments Balance at 1/1/2016	**65.893**	**131,965**	**75,891**	**0**	**273,749**
	(58.785)	**(131,149)**	**(71,047)**	**(0)**	**(260,982)**
Foreign currency exchange effects	216	−410	134	0	−60
	(613)	(2,131)	(350)	(0)	(3,094)
Additions	4.167	9,197	7,608	0	20,972
	(4.232)	(9,332)	(7,431)	(0)	(20,995)
Impairments	1.145	46	37	61	1,289
	(0)	(190)	(0)	(0)	(190)
Reversal of impairments	−439	0	0	0	−439
	(0)	(0)	(0)	(0)	(0)
Disposals	434	7,913	7,272	0	15,619
	(322)	(10,271)	(2,893)	(0)	(13,486)
Reclassifications (+/-)	5	26	228	0	259
	(2.586)	(−567)	(−44)	(0)	(1,975)
Depreciation and impairments Balance at 31/12/2016	**70.554**	**132,911**	**76,625**	**61**	**280,151**
	(65.893)	**(131,965)**	**(75,891)**	**(0)**	**(273,749)**
Net carrying amount at 31/12/2016	**84.396**	**39,730**	**21,546**	**12,210**	**157,882**
	(85.385)	**(42,894)**	**(23,418)**	**(3,962)**	**(155,659)**

Prior year figures are in parentheses.

Land and buildings of the Group in the amount of 84,396 thousand euros (prior year 85,385 thousand euros) included in particular the production and administration buildings in Jena, Altenstadt, Huntsville (USA) and Shanghai (China) as well as the land acquired in 2016 in Michigan (USA) valued at 2,180 thousand euros. As a result of the building being constructed on this site not yet having been completed, it will be reported in the sum of 5,550 thousand euros as an addition to assets under construction.

The reclassification from investment property in 2015 related to real estate in Jena and resulted in an increase of 5,143 thousand euros in land and buildings. No such reclassifications were carried out in 2016.

The impairment losses applied were recognized in other operating expenses. The impairment reversal was shown under other operating income.

The impairment losses covered in particular an impairment to a property used by third parties at the Jena Göschwitz site in the sum of 1,145 thousand euros. Due to imminent maintenance investments to clear an investment backlog in the rented part of the building, the carrying amount of the rented part of the building exceeds the value in use determined in accordance with the discounted cash flow method. The discounting of the anticipated cash flows was applied at a property interest rate specific to the individual property of 6.30 percent.

As the reasons for an impairment loss applied in prior years no longer exist, a recovery of impairment was applied in the sum of 439 thousand euros for a part of a property used by third parties in Jena.

The order commitments for property, plant and equipment total 1,958 thousand euros (prior year 4,019 thousand euros). In the 2016 fiscal year investment subsidies of 43 thousand euros were deducted from the acquisition costs of property, plant and equipment (prior year 0).

As at the balance sheet date, liens against property, plant and equipment totaled 111 thousand euros (prior year 151 thousand euros) and loans in the sum of 138 thousand euros were secured through registered charges against real property (prior year 176 thousand euros). There are no further disposal restrictions for property, plant and equipment.

5.3 Investment Property

in thousand euros	Investment Property
Acquisition or production costs Balance at 1/1/2016	**10,396 (29,954)**
Additions	1 (0)
Disposals	0 (11,925)
Reclassifications	0 (–7,633)
Acquisition or production costs Balance at 31/12/2016	**10,397 (10,396)**
Depreciation Balance at 1/1/2016	**5,860 (13,596)**
Additions	93 (337)
Impairments	0 (270)
Reversal of impairments	0 (–1,986)
Disposals	0 (3,766)
Reclassifications	0 (–2,591)
Depreciation Balance at 31/12/2016	**5,953 (5,860)**
Net carrying amount at 31/12/2016	**4,444 (4,536)**

Prior year values are in parentheses.

The investment property as at December 31, 2016 primarily included a real estate fund containing largely commercial property in the Jena-Göschwitz Industrial Park. As at January 1, 2016, the real estate fund previously included in the consolidated financial statements in accordance with IFRS 10 has been merged to JENOPTIK AG.

The investment property was valued at the amortized acquisition and production costs in the sum of 4,444 thousand euros (prior year 4,536 thousand euros). No impairment losses were applied in the fiscal year just ended since the respective fair value determined of the property exceeds its net carrying amount.

The fair value was determined on the basis of a discounted cash flow method. In this context, the net rents without utilities as well as maintenance and other costs were estimated for the entire remaining useful lives of the properties and discounted over the remaining useful lives. Risk-adjusted interest rates were used as the discount rate. Fair value was allocated to level 3 of the hierarchy of fair values because of the use of non-observable parameters such as interest rates, rents without utilities as well as maintenance and ancillary expenses.

In total, the fair value of the item investment property was determined to be 5,894 thousand euros (prior year 5,821 thousand euros).

Rental income from investment property held at the end of the fiscal year 2016 amounted to 577 thousand euros (prior year 510 thousand euros).

In fiscal year 2016, the direct operating expenses for rented space in the real estate and movables accounted for at the end of the year totaled 218 thousand euros (prior year 236 thousand euros) and for non-rented space 5 thousand euros (prior year 133 thousand euros).

5.4 Leasing

Finance leases

The Group as lessee. Finance leases included other equipment, operating and office equipment. This related to several lease-purchase agreements for vehicles based on an average borrowing rate of interest of 4.9 percent.

The assets based on the finance lease agreements are included in the recognized property, plant and equipment in the sum of 83 thousand euros (prior year 119 thousand euros). As at the balance sheet date, the original acquisition and production costs of the assets in the item finance leases amounted to 207 thousand euros (prior year 257 thousand euros).

Of the lease payments in the sum of 39 thousand euros (prior year 48 thousand euros), 5 thousand euros (prior year 6 thousand euros) were recognized through profit or loss in the fiscal year 2016.

Future lease payments are shown in the following table:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Minimum lease payments	44 (53)	47 (75)	0 (0)	91 (128)
Interest portion included in payments	3 (5)	2 (5)	0 (0)	5 (9)
Present value	41 (48)	45 (70)	0 (0)	86 (118)

Prior year values are in parentheses.

The Group as lessor. Following the amicably agreed premature termination of contracts for the supply of traffic control devices to a customer which had been categorized as a finance lease, at the beginning of the 2016 fiscal year a group company in the Mobility segment concluded similar follow-up contracts which were also categorized as a finance lease. The average total lease period for these contracts is 30 months.

Of the agreed minimum lease payments received in the fiscal year 2016 in the sum of 425 thousand euros (prior year 123 thousand euros), 21 thousand euros (prior year 8 thousand euros) were recognized through profit or loss.

The outstanding minimum lease payments as at December 31, 2016 are shown as follows:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Minimum lease payments	510 (0)	340 (0)	0 (0)	850 (0)
Interest portion included in payments	0 (0)	5 (0)	0 (0)	5 (0)
Present value	510 (0)	335 (0)	0 (0)	845 (0)

Prior year values are in parentheses.

The unrealized finance lease income is 5 thousand euros (prior year 0).

Operating Leases

The Group as lessee. Operating leases mainly include lease agreements for commercial space as well as for office and data processing equipment.

The payments arising from leases are recognized through profit or loss in the sum of 8,608 thousand euros (prior year 8,138 thousand euros). As in the prior year, there were no contingent lease payments included.

As at the balance sheet date, there are open obligations from non-terminable operating leases with the following maturities:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Minimum lease payments	7,818 (8,987)	17,362 (21,071)	16,998 (22,573)	42,179 (52,631)

Prior year values are in parentheses.

The details for the prior year included future payments for ancillary services in the lease in the sum of 13,909 thousand euros which were no longer taken into account in the fiscal year 2016.

The Group as lessor. Within the framework of operating leases, the Group leases commercial property. Rental income from the leasing of property, plant and equipment and from investment property in the reporting period amounted to 1,961 thousand euros (prior year 2,823 thousand euros).

At the balance sheet date the following minimum lease payments had been contractually agreed with tenants:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Minimum lease payments	1,645 (1,601)	2,523 (1,907)	48 (315)	4,216 (3,823)

Prior year values are in parentheses.

Lease agreements without a termination date were recorded in rental income only up until the date of the earliest possible termination. The probability of leasing the space further or of granting extensions on the lease agreements was not included in the calculation.

5.5 Financial Investments

in thousand euros	31/12/2016	31/12/2015
Shares in unconsolidated associates	2,222	2,877
Investment companies	14,376	14,129
Loans to unconsolidated associates and investment companies	1,294	1,072
Long-term securities	1,142	2,167
Other loans	0	1,500
Total	**19,034**	**21,745**

In the fiscal year 2016 the shares in non-consolidated, associated companies increased as a result of the new formation of JENOPTIK Saudi Arabia LLC by 111 thousand euros. This was offset by the reduction in the share carrying amount in another company by an impairment applied in the sum of 754 thousand euros to the recoverable amount which corresponds to the value in use determined in accordance with the discounted cash flow method.

Investment companies reduced by 161 thousand euros in 2016 as the result of the sale of a minority investment holding in the Optics & Life Science segment. Shares in a property company were revalued by 256 thousand euros outside of profit or loss. Further changes resulted from foreign currency exchange effects in the conversion of the foreign currencies used in preparing the separate financial statements of the entities consolidated.

The increase in loans to non-consolidated associated companies and investment companies is attributable, among other things, to a value recovery in the sum of 477 thousand euros. This was countered by the write-down of a loan in the sum of 225 thousand euros.

The reduction in non-current securities is mainly the result of a fall in the prices of listed securities in the "available-for-sale financial assets" category in the sum of 1,086 thousand euros. Due to the sustainability of the decline in prices, 485 thousand euros was recorded as an impairment and consequently through profit or loss.

Other loans were repaid in full by an entity in the fiscal year 2016.

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

in thousand euros	2016	2015
Impairment at 1/1	**22,864**	**48,252**
Additions	2,438	1,046
Utilization	9,575	24,927
Reversals/derecognition	660	1,507
Foreign currency exchange effects	2	0
Impairment at 31/12	**15,069**	**22,864**

The balance of impairment losses and impairment reversals applied to financial investments in previous years amounted to minus 1,778 thousand euros in the fiscal year (prior year minus 461 thousand euros).

In addition to the facts already presented above, the development of impairments in 2016 were affected primarily by the deletion of an entity and the impairment losses used in this context in the total sum of 8,923 thousand euros.

5.6 Non-current Trade Receivables

Receivable in the amount of 1,923 thousand euros (prior year 3,100 thousand euros) arising from contracts with customers with a due date of more than one year, are shown under non-current assets due to their maturity and special nature of the business.

5.7 Other Non-current Financial Assets

Other non-current financial assets include the following:

in thousand euros	31/12/2016	31/12/2015
Derivatives	1,591	1
Receivables from lease agreements	335	0
Total	**1,926**	**1**

The aggregated item derivative financial instruments is explained in greater detail under Note 8.2 from page 171 on.

For details on receivables arising from lease contracts we refer to Note 5.4 from page 153 on.

5.8 Other Non-current Non-financial Assets

Other non-current assets amounting to 1,108 thousand euros (prior year 1,447 thousand euros) essentially comprise the deferred charges for the syndicated loan in the amount of 649 thousand euros (prior year 936 thousand euros).

5.9 Deferred Tax Assets

The development of deferred tax assets shown as an item in the statement of financial position is shown under Note 4.11 from page 145 on.

5.10 Inventories

in thousand euros	31/12/2016	31/12/2015
Raw materials, consumables und supplies	56,186	60,122
Unfinished goods and work in progress	84,400	89,007
Finished goods and merchandise	18,738	18,004
Total	**159,324**	**167,132**

The carrying amount of inventories corresponds to the lower of net realizable value and acquisition or production costs.

As at the end of the fiscal year 2016, accumulated impairment losses in the sum of 45,508 thousand euros (prior year 44,055 thousand euros) were taken into account on the net realizable value. The carrying amount of the inventories which were recognized at the net realizable value was 97,437 thousand euros.

In the fiscal year 2016 impairments were recognized in the amount of 5,295 thousand euros (prior year 7,164 thousand euros). Impairment losses were reversed in the sum of 3,951 thousand euros (prior year 1,029 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 218,510 thousand euros (prior year 216,588 thousand euros), the table below shows the distribution.

in thousand euro	31/12/2016	31/12/2015
Cost of sales	215,992	214,417
Research & development expenses	1,735	1,428
Selling expenses	479	470
Administrative expenses	304	273
Total	**218,510**	**216,588**

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

5.11 Current Trade Receivables

in thousand euros	31/12/2016	31/12/2015
Trade receivables from third parties	124,608	120,009
Receivables from construction contracts	4,419	1,359
Trade receivables from unconsolidated associates and joint operations	562	1,843
Trade receivables from entities in which investments are held	232	405
Total	**129,821**	**123,616**

The fair values of trade receivables correspond to their carrying amounts.

With regard to receivables from construction contracts less progress payments, customer-specific construction contracts are recognized as assets if the construction costs incurred, including shares in profits, exceed the amount received from advance payments and partial billings. In the fiscal year 2016, progress payments in the sum of 2,486 thousand euros (prior year 1,047 thousand euros) were offset against receivables arising from construction contracts.

Trade receivables comprise the following:

in thousand euros	31/12/2016	31/12/2015
Gross amount of trade receivables from third parties	130,243	129,506
Gross amount of receivables from construction contracts	4,419	1,359
Gross amount of trade receivables from unconsolidated associates and joint operations	1,942	3,616
Gross amount of trade receivables from entities in which investments are held	302	1,108
Gross amount of trade receivables (total)	**136,906**	**135,590**
Cumulative impairments	−7,084	−11,973
Carrying amount of trade receivables at 31/12	**129,821**	**123,616**

Default risks are taken into account through impairments. The following table shows the changes in bad debt allowances on outstanding trade receivables:

in thousand euros	2016	2015
Bad debt allowances at 1/1	**11,973**	**13,542**
Additions	2,289	4,399
Comsumption	445	694
Reversals / derecognition	6,785	5,010
Foreign currency exchange effects	53	−264
Bad debt allowances at 31/12	**7,084**	**11,973**

The gross carrying amounts of trade receivables from third parties totaled 130,243 thousand euros (prior year 129,506 thousand euros). Thereof receivables amounting to 2,609 thousand euros (prior year 6,465 thousand euros) are subject to individual impairment. The age structure of unimpaired trade receivables from third parties is as follows:

in thousand euros	2016	2015
Not due	101,395	89,443
Overdue	26,238	33,598
Less than 60 days	18,321	22,472
Between 60 and 120 days	2,021	3,963
Between 120 and 240 days	1,270	2,559
Between 240 and 360 days	695	802
More than 360 days	3,931	3,802
Total	**127,634**	**123,041**

There was a decrease in overdue but unimpaired receivables compared to the prior year. This was achieved primarily to the introduction of shorter dunning intervals and systems-based credit management system. The effect of these measures will continue to be felt in subsequent years. Overdue but unimpaired receivables were owed primarily by public contractors, companies in the automobile industry as well as their suppliers. The default risk as at the balance sheet date for receivables not subject to individual impairment were taken into account through portfolio-based impairments in the sum of 3,491 thousand euros (prior year 4,053 thousand euros).

Non-impaired receivables are covered by collateral in the form of bank guarantees in the sum of 4,251 thousand euros (prior year 2,130 thousand euros).

5.12 Other Current Financial Assets

in thousand euros	31/12/2016	31/12/2015
Receivables from Mitarbeitertreuhand e.V.	1,752	1,615
Receivables from lease agreements	510	0
Other receivables from unconsolidated associates	102	4
Derivatives	51	342
Miscellaneous current financial assets	8	30
Total	**2,422**	1,991

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

For details on receivables arising from lease contracts we refer to Note 5.4 from page 152 on.

The aggregated item derivative financial instruments is explained in greater detail under Note 8.2 from page 171 on.

Default risks are taken into account through impairments. Other current financial assets comprise the following:

in thousand euros	31/12/2016	31/12/2015
Gross amount of other current financial assets	3,927	6,539
Cumulative impairments	−1,504	−4,549
Carrying amount of other current financial assets at 31/12	**2,422**	**1,991**

The following table shows the changes in bad debt allowances on other current financial assets:

in thousand euros	2016	2015
Bad debt allowances at 1/1	**4,549**	**3,917**
Additions	0	954
Comsumption	2,801	322
Reversals/derecognition	243	0
Bad debt allowances at 31/12	**1,504**	**4,549**

The claim of bad debt allowance mainly results from the final agreement on purchase price-related facts in connection with discontinued operations.

5.13 Other Current Non-financial Assets

in thousand euros	31/12/2016	31/12/2015
Accruals	3,348	3,154
Receivables from other taxes	1,527	1,779
Receivables from income taxes	513	247
Receivables from subsidies and grants	301	1,811
Receivables from compensation claims	0	1,174
Miscellaneous current non-financial assets	1,402	1,194
Total	**7,091**	**9,359**

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

5.14 Current Financial Investments

in thousand euros	31/12/2016	31/12/2015
Fair value	50,540	418

In addition to a cash investment in the sum of 49,746 thousand euros, current financial investments essentially include shares and money market funds.

For financial investments valued at amortized acquisition costs, it is assumed that the fair values correspond to the carrying amounts.

For further details on the financial instruments we refer to Note 8.2 from page 171 on.

5.15 Cash and Cash Equivalents

in thousand euros	31/12/2016	31/12/2015
Checks, cash on hand, bank balances and demand deposits with a maturity of less than 3 months	91,961	83,824

For further details on the development of cash and cash equivalents we refer to Note Disclosures on Cash Flow from page 167 on.

5.16 Equity

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

Share Capital

Share capital amounted to 148,819 thousand euros and was divided into 57,238,115 no-par value 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 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 August 21, 2014, Deutsche Asset & Wealth Management Investment GmbH, Frankfurt, Germany, notified us that it had exceeded the threshold of 5 percent of the voting rights in JENOPTIK AG on August 19, 2014. Accordingly, Deutsche Asset & Wealth Management Investment GmbH directly held 5.20 percent of the voting rights (2,978,179 voting rights) in JENOPTIK AG on that day. Thereof 5.06 percent of the voting rights (2,898,579 voting rights) were held directly by Deutsche Asset & Wealth Management Investment GmbH and 0.14 percent of the voting rights (79,600 voting rights) were attributed to them in accordance with § 22 (1) (1) No. 6 of the WpHG.

Templeton Investment Counsel, LLC, Wilmington, Delaware, USA, notified us on February 17, 2016 that it had exceeded the threshold of 5 percent of the voting rights in JENOPTIK AG, on February 12, 2016. Accordingly, on that day Templeton Investment Counsel, LLC held 4.69 percent of the voting rights (2,682,522 voting rights) as attributed to it in accordance with § 22 (1) No. 6 of the WpHG.

The Ministry of Finance, Oslo, Norway notified us on November 4, 2016 on behalf of the Norwegian state that it had exceeded the threshold of 3 percent of the voting rights in JENOPTIK AG on November 2, 2016. Accordingly, on that day the Ministry of Finance held 3.06 percent of the voting rights (1,752,411 voting rights) as attributed to it in accordance with § 22 (1) No. 6 of the WpHG. The voting rights are held directly by the Norges Bank, Oslo, Norway.

On May 28, 2015, Dimensional Fund Advisors LP, Austin, Texas, USA, notified us it had exceeded the threshold of 3 percent of the voting rights in JENOPTIK AG on May 22, 2015. Accordingly, Dimensional Fund Advisors LP directly held 3.01 percent of the voting rights (1,721,289 voting rights) in JENOPTIK AG on that day. Thereof 2.89 percent of the voting rights (1,654,185 voting rights) were attributable to Dimensional Fund Advisors LP in accordance with § 22 (1) (1) No. 6 of the WpHG and 0.13 percent of the voting rights (73,295 voting rights) were attributed in accordance with § 22 (1) (1) No. 6 of the WpHG in conjunction with § 22 (1) (2) of the WpHG. Thereof 6,191 voting rights were attributed to Dimensional Fund Advisors LP not only in accordance with § 22 (1) (1) No. 6 of the WpHG, but also in accordance with § 22 (1) (1) No. 6 in conjunction with § 22 (1) (2) of the WpHG. Dimensional Holdings Inc., Austin, Texas, USA, indirectly holds shares through Dimensional Fund Advisors LP, to which 3.01 percent of the voting rights (1,721,289 shares) were attributed in accordance with § 22 (1) (1) No. 6 of the WpHG in association with § 22 (1) (2) of the WpHG.

ODDO Asset Management, Paris, France, informed us on January 25, 2016 that it had exceeded the threshold of 3 percent of the voting rights on January 22, 2016. Accordingly, ODDO Meriten Asset Management SA held 2.97 percent of the voting rights (1,699,036 voting rights) on that day. Thereof 2.17 percent of the voting rights (1,241,798 voting rights) were directly attributable to ODDO Asset Management in accordance with § 21 of the WpHG and 0.80 percent of the voting rights (457,238 voting rights) in accordance with § 22 of the WpHG.

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

Authorized capital

An "Authorized Capital 2015" was created with the resolution passed by the Annual General Meeting on June 3, 2015 as follows: The Executive Board is authorized through June 2, 2020, 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 bearer shares against cash and / or contribution in-kind ("Authorized Capital 2015"). The new shares can be taken on by one bank or multiple banks with the obligation to offer these to shareholders (indirect subscription rights). The Executive Board is authorized, with the approval of the Supervisory Board, to exclude the subscription rights of shareholders (a) for fractional amounts; b) in the event of capital increases against contribution in-kind in particular also as part of corporate mergers or for the acquisition of companies, parts of companies or investments in companies (including an increase in existing investment holdings) or other depositable assets related to such an acquisition project, including receivables from the company; (c) in the event of capital increases in return for cash contributions, to the extent that the portion of the nominal capital attributable to the new shares, taking into account resolutions at the Annual General Meeting and / or the utilization of other authorizations to exclude the subscription right in direct or corresponding application of § 186 (3) (4) of the Stock Corporation Act since the date on which such authorization becomes effective, neither exceeds a total of ten percent of the nominal capital as of the date of registration for such authorized capital, nor exceeds a total of ten percent of the nominal capital in existence as of the date of issuance of the new shares and the issue price of new shares is not significantly below the stock exchange price; (d) for the issuance to employees of the company and in companies in which Jenoptik has a majority participation.

All aforementioned authorizations to exclude subscription rights are limited to a total of 20 percent of the nominal capital available at the time this authorization became effective – or, if this value is lower, to 20 percent of the nominal capital at the time this authorization is exercised. This limit of 20 percent includes shares that (i) are sold for the purpose of servicing option and / or convertible bonds that were or could still be issued during the period of validity of the authorized capital to the exclusion of subscription rights or (ii) are sold by the company as treasury shares during the period of validity of the 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.

Conditional Capital

The shareholder resolution passed at the Annual General Meeting (AGM) held on June 4, 2013, 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 bearer shares ("Conditional Capital 2013"). The conditional capital increase will only be executed to the extent that the creditors / owners of option certificates or conversion rights issued up to June 3, 2018 by the company or a domestic or foreign incorporated company in which the company has a direct or indirect majority stake, pursuant to the resolution of the Annual General Meeting dated June 4, 2013, exercise their options 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 4, 2013, fulfill their conversion rights by June 3, 2018 and neither own shares are used nor is payment made in cash. The new shares are to participate in profits from the commencement of the fiscal year for which no Annual General Meeting resolution has yet been passed on appropriating net profits retained at the time of their issuance. The Executive Board is authorized to determine additional details on the issuance of the conditional capital increase. Because a mutual offset with other authorizations to exclude subscription rights was not yet provided for in the resolution regarding authorization to issue option and / or convertible bonds at the 2013 Annual General Meeting, the Executive Board and the Supervisory Board undertook a voluntary commitment in 2015 to the effect that any use of the authorization to issue option and / or convertible bonds to the exclusion of subscription rights be subject to the 20-percent limit applicable to the authorized capital, such that, in the event of the issue of option and / or convertible bonds without subscription rights, any shares created without subscription rights from the Authorized Capital 2015 are to be taken into account.

Reserves

Capital reserve. The capital reserve contained 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 by companies included in the consolidated financial statements less dividends paid.

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

- available-for-sale financial assets
- cash flow hedges,
- accumulated foreign currency exchange differences and
- actuarial gains / losses arising from the valuation of pensions and similar obligations.

In the 2016 fiscal year value adjustments to securities held for sale amounted to minus 249 thousand euros (prior year 202 thousand euros). Deferred taxes of minus 38 thousand euros (prior year 0) are attributable to this. The effective portions of the change in the value of derivatives to be recognized outside of profit or loss within the framework of the cash flow hedges amounted to minus 1,680 thousand euros (prior year 778 thousand euros) less attributable deferred taxes of 502 thousand euros (prior year minus 232 thousand euros). Accumulated foreign currency exchange differences encompassed 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 915 thousand euros (prior year 4,633 thousand euros). Deferred taxes attributable to this issue changed by 4 thousand euros (prior year 74 thousand euros).

The actuarial losses (prior year gains) arising from the valuation of pensions are recognized in the sum of minus 298 thousand euros (prior year 6,255 thousand euros). Deferred taxes of minus 60 thousand euros (prior year minus 1,585 thousand euros) are attributable to this.

In the 2016 fiscal year the changes in deferred taxes recognized outside of profit or loss in total increased the reserves by 408 thousand euros (prior year reduced by 1,743 thousand euros). The amount of deferred tax assets in equity totaled 5,961 thousand euros (prior year 5,553 thousand euros).

Treasury Shares

In accordance with the shareholder resolution made at the Annual General Meeting held on June 12, 2014, the Executive Board was authorized to purchase up to a maximum of ten percent of the no-par value shares of the existing share capital as treasury shares for purposes other than trade in treasury shares by no later than June 11, 2019. 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 et seq. of the 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 sales of treasury shares may be exercised by the company or, for specific authorized purposes, by dependent companies, by companies in which the company 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. Further details regarding the buyback of treasury shares are described in the invitation to the Annual General Meeting 2014, accessible to the general public on our website at www.jenoptik.de in the category Annual General Meeting.

5.17 Non-controlling Interests

This item of the statement of financial position contains reconciliation items from the capital consolidation of shares held by other shareholders in the capital to be consolidated as well as the profits and losses allocated to them.

As a result of the acquisition of shares from non-controlling shareholders, the amounts attributable to the acquired shares were reclassified to retained earnings in the fiscal year 2016.

5.18 Provisions for Pensions and Similar Obligations

Provisions for pension obligations are set aside on the basis of funding schemes for retirement, as well as disability and survivor benefit commitments. Obligations exist in Germany and Switzerland. 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 compensation of the employee at the commencement of retirement. Within the Group, company pension plans are 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 pension benefit schemes 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 subject to various risks in conjunction with defined benefit plans. Along with general actuarial risks such as longevity risks and interest rate change risks, the company is subject to foreign currency exchange as well as investment risks.

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 performance claims acquired pro rata as at 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 at the commencement of the period, discounting the benefit-oriented gross pension obligation.

The actuarial effects includes both the actuarial profits and losses from the valuation of the benefit-oriented gross pension obligation and the difference between the actual yield realized on plan assets and the typical yield assumed at the commencement of the period.

The benefit commitment of the Group cover 905 entitled persons, including 333 active employees, 88 former employees as well as 484 retirees and survivors.

In compliance with IAS 19, the assets held by the Mitarbeitertreuhand e.V., Jena, are offset as plan assets against pension obligations. The pension obligations of JENOPTIK Industrial Metrology Switzerland SA as well as JENOPTIK Advanced Systems GmbH (formerly: ESW GmbH) are also covered by plan assets and therefore shown on a net basis. The plan assets are mainly managed by AXA Winterthur, Switzerland.

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

in thousand euros	2016	2015
DBO at 1/1	67,432	72,834
Foreign currency exchange effects	108	1,246
Past service cost	1,224	1,206
Interest expenses	1,148	1,006
Actuarial gains (-) and losses (+)	1,519	−5,774
Experience-based profits and losses	−2,038	−70
Changes from financial assumptions	3,557	−5,704
Pension benefits	−2,669	−3,085
DBO at 31/12	68,762	67,432

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

in thousand euros	2016	2015
Current service cost	1,224	1,206
Net interest expenses	699	486
Total expenses	**1,923**	**1,692**

The amounts shown above are generally included in the personnel expenses of the functional areas. The interest charged on the obligation as well as the interest received on plan assets is recorded in the interest result.

Changes in plan assets are shown as follows:

in thousand euros	2016	2015
Plan assets at 1/1	31,339	31,791
Foreign currency exchange effects	69	766
Interest income from plan assets	232	520
Return on plan assets less interest income	1,189	481
Contributions	682	394
Employers	227	214
Employees	454	180
Pension payments	−2,376	−2,614
Plan assets at 31/12	**31,133**	**31,339**

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

in thousand euros	2016	2015
Present value of the obligation covered by plan assets	63,022	60,159
Plan assets	−31,133	−31,339
Net liability of the obligation covered by plan assets	31,889	28,820
Net liability of the obligation not covered by plan assets	5,741	7,274
Total	**37,630**	**36,095**

The portfolio structure of the plan assets is shown as follows:

in thousand euros	2016	2015
Loans rendered (loans and receivables)	4,985	1,870
Insurance policies	9,528	9,094
Stocks and other securities	5,627	5,624
Investments	5,456	4,400
Cash equivalents	7,288	11,966
Other assets and liabilities	−1,752	−1,615
Total	**31,133**	**31,339**

There is an active market for the stocks and other securities held in plan assets.

Actuarial assumptions are disclosed in the following table. Inflation expectations are included in the mentioned assumptions, if applicable.

in percent	2016	2015
Discount rate		
Germany	1.52	1.88
Switzerland	0.18	0.70
Expected salary increases		
Germany	2.79	2.66
Switzerland	0.35	0.35
Expected pension increases		
Germany	1.81	1.81
Switzerland	0.00	0.10

A yield of 1.94 percent on plan assets in the fiscal year 2016 is assumed in accordance with the discounting factor used in calculating the DBO for the prior year, amounting to 232 thousand euros (prior year 520 thousand euros). The actual yield from the plan assets was 1,420 thousand euros (prior year 1,002 thousand euros).

A change in the key actuarial assumptions of one percentage point respectively as at the balance sheet would influence the DBO as follows:

	Changes in DBO	
in thousand euros	Increase	Decrease
Discount rate	−9,194	9,589
	(−8,283)	(11,006)
Expected salary increases	244	−63
	(213)	(−83)
Expected pension increases	8,854	−5,986
	(9,250)	(−5,310)

The sensitivity analysis shows the change in a DBO when an assumption is changed. The cumulative change in the defined benefit obligation resulting from changes in several assumptions cannot be directly derived because the changes do not have a straight-line effect on the calculation of DBO due to actuarial effects.

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

The weighted average remaining service period of 5 years and the average weighted maturity of the obligation amount to 14 years as at December 31, 2016.

The financing of the pension plans of JENOPTIK Advanced Systems GmbH (formerly: ESW GmbH), Wedel and of JENOPTIK SSC GmbH, Jena, is provided via a CTA model. The pension plan of JENOPTIK Industrial Metrology Switzerland SA provides for risk participation by the beneficiaries. In this context, the pension plan is financed by contributions from both the employer and the employees.

The anticipated pension payments arising from the pension plans as at December 31, 2016 for the following fiscal year are in the sum of 2,620 thousand euros (prior year 2,592 thousand euros) and for the subsequent four fiscal years 11,610 thousand euros (prior year 11,546 thousand euros).

Defined contribution plans

In regards to defined contribution plans the expenses in fiscal year 2016 amounted to 13,987 thousand euros (prior year 13,813 thousand euros), containing contributions to statutory pension insurance of 13,447 thousand euros (prior year 13,335 thousand euros).

5.19 Tax Provisions

in thousand euros	31/12/2016	31/12/2015
Provisions for income taxes	3,290	3,076
Provisions for other taxes	90	205
Total	**3,380**	**3,281**

Details on income taxes are provided in Note 4.11 from page 145 on.

5.20 Other Provisions

The development of other provisions is as follows:

in thousand euros	Balance at 1/1/2016	Foreign currency exchange effects	Additions	Compound interest	Utilization	Reversals	Balance at 31/12/2016
Personnel	20,843	21	20,199	26	−14,466	−2,272	24,352
Guaranty and warranty obligations	13,559	11	7,362	14	−4,988	−2,587	13,369
Trademark and license fees	2,930	1	228	0	−14	−213	2,931
Restructuring	3,714	0	0	0	−949	−504	2,261
Price adjustments	1,471	1	260	8	−2	−11	1,727
Onerous contracts	459	0	1,080	0	−156	−42	1,341
Provisions for disposals	1,028	−3	0	0	−226	−559	240
Other	9,016	−72	6,491	74	−2,219	−1,021	12,270
Total	**53,020**	**−42**	**35,621**	**122**	**−23,020**	**−7,210**	**58,491**

Significant items in the personnel provisions relate to performance bonuses, profit-sharing schemes and similar obligations such as contractually agreed bridging payments for the President & CEO Dr. Michael Mertin due to the non-renewal of his Executive Board contract with Jenoptik in the sum of 1,762 thousand euros. Personnel provisions also include anniversary bonuses in the sum of 2,584 thousand euros (prior year 2,215 thousand euros) and partial retirement obligations in the sum of 502 thousand euros (prior year 464 thousand euros). Expert opinions were obtained for the partial retirement obligations with the assumption of income increasing at 2.8 percent (prior year 2.8 percent). The amount of the liability for already earned top-up payments was 155 thousand euros as at December 31, 2016 (prior year 80 thousand euros). In 2017, top-up payments will total 145 thousand euros (prior year 75 thousand euros), in the subsequent years 10 thousand euros (prior year 5 thousand euros).

The provision for guaranty and warranty obligations include expenses for individual guaranty cases as well as for general guaranties. The calculation of the provision for general guaranties is largely based on empirical values of the past which are determined as company-specific respectively product group-specific ratio of the guaranty and warranty expenses compared to the revenues and then applied to the revenues subject to guaranties and warranties. The amounts that were reversed in the 2016 fiscal year chiefly comprise guaranty and warranty provisions for specific individual guaranty cases for which the underlying obligations no longer exist.

The provision for trademark and license fees relates to risks in connection with potential patent violations as well as license cost risks.

The use of the provision for restructuring includes the payment of severance pay to employees in connection with the restructuring of the laser business of Jenoptik Laser GmbH in Jena.

Provisions for price adjustments exist for customer contracts that are subject to risks of subsequent changes of selling prices. Additions and reversals are made to revenue.

The provision for onerous contracts primarily includes the obligation surplus for individual customer projects as well as for a small portion of the backlog of deliveries as part of a service contract.

Provisions for disposals mainly contain expenses from disposals as well as the residual risks of Jenoptik from discontinued operations and consequently from related contractual obligations as well as legal and advisory costs. The utilization and reversals relate primarily to a provision that was set aside in the years 2010 to 2012 for risks in conjunction with the sale of part of a business unit and the associated personnel measures.

Other provisions included, amongst others, provisions for potential contractual penalties and claims for damages. In addition, they relate to numerous identifiable specific risks as well as contingent liabilities that were accounted for in the amount of the best possible estimate of settlement sum. The additions in the fiscal year 2016 include, amongst other things, the Supervisory Board remuneration, the recognition of costs for legal disputes, as well as recording of the provision for contractual penalties.

The timing of anticipated cash outflows is shown below:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Personnel	19,721	2,543	2,087	24,352
Guaranty and warranty obligations	10,320	3,018	32	13,369
Trademark and license fees	810	2,121	0	2,931
Restructuring	2,261	0	0	2,261
Price adjustments	1,000	727	0	1,727
Onerous contracts	1,181	160	0	1,341
Provisions for disposals	188	52	0	240
Other	10,671	599	999	12,270
Total	**46,152**	**9,220**	**3,119**	**58,491**

5.21 Share-based Payments

As at December 31, 2016, the Jenoptik Group had at its disposal share-based remuneration instruments in the form of virtual shares for both active Executive Board members and some members of the top management.

The share-based remuneration affected the statement of income as well as in the statement of financial position in the 2016 fiscal year, as follows:

	Profit or loss		Statement of financial position	
in thousand euros	2016	2015	2016	2015
Virtual shares current year	−262	−1,127	262	1,127
Virtual shares previous years (since 2009)	−1,541	−851	5,676	3,777
Total	**−1,803**	**−1,978**	**5,938**	**4,904**

The valuation basis for determining the fair value is the volume-weighted daily share price of JENOPTIK AG over the last twelve months.

At the end of their four-year contractual term or in the event of premature termination of contract, the virtual shares are settled in cash. Following preparation by the Personnel Committee, subject however to the approval of the Supervisory Board, the members of the Executive Board are to be granted a total of 18,134 virtual shares in the 2016 fiscal year. The virtual shares allocated for the fiscal years 2011 to 2016 were valued at the fair value as at the balance sheet date of the 2016 fiscal year and recognized in provisions.

The development of the Executive Board's virtual shares is shown in the following table:

Number of shares	Number 2016	Number 2015
Dr. Michael Mertin		
1/1	328,066	299,024
Adjustment	0	−15
Granted for period	0	69,408
Granted for protection of existing shares	4,326	4,688
Paid out	49,238	45,039
31/12	283,154	328,066
Hans-Dieter Schumacher (Member of the board since April 1, 2015)		
1/1	21,329	0
Granted for period	18,134	21,329
Granted for protection of existing shares	331	0
31/12	39,794	21,329

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

Virtual shares are also granted to some members of the top management. The system of allocation of and payment for the virtual shares is essentially the same as that prescribed for the Executive Board.

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

Number of shares	Number 2016	Number 2015
Members of the Executive Management Board		
1/1	114,346	88,428
Granted for period	20,113	34,949
Granted for adjusted achievement of prior year's goals	473	−2,945
Forfeited rights	−12,575	−6,086
Paid out	−12,631	0
31/12	109,726	114,346

5.22 Financial Debt

The details of current and non-current financial debt are shown in the following table:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	2016
Liabilities to banks	4,088 (14,802)	44,845 (44,763)	75,589 (68,410)	124,521 (127,975)
Liabilities from finance leases	41 (48)	45 (70)	0 (0)	86 (118)
Total	**4,129** **(14,850)**	**44,890** **(44,833)**	**75,589** **(68,410)**	**124,608** **(128,093)**

Prior year figures are in parentheses.

The scheduled repayment of a tranche of the debenture loans totaling 11,000 thousand euros took place in the fiscal year 2016. By contrast, liabilities increased as a result of the inclusion of non-current loans amounting to 7,115 thousand euros for financing the investment in Michigan, USA.

Liabilities to banks with a term of up to one year primarily comprise the utilization of revolving lines of financing for our Chinese consolidated entity.

Liabilities to banks with a term of one to five years comprise further tranches of the debenture loans with a nominal value of 45,000 thousand euros.

Liabilities to banks with a term of more than five years include further tranches of the debenture loans in the nominal value of 69,000 thousand euros.

As at the balance sheet date, the syndicated loan was purely utilized for guarantees in the sum of 11,726 thousand euros. Taking into account the other lines of financing not fully utilized 231,488 thousand euros of guaranteed, existing lines of credit lines were unused as at December 31, 2016.

5.23 Non-current Trade Payables

As in prior year, non-current trade payables amounting to 680 thousand euros (prior year 1,183 thousand euros) include liabilities from purchasing intangible fixed assets.

5.24 Other Non-current Financial Liabilities

in thousand euros	31/12/2016	31/12/2015
Derivatives	1,983	689
Liabilities from acquiring associates	702	1,423
Other non-current financial liabilities	800	800
Total	**3,485**	**2,912**

Liabilities from acquiring associates result from put options for the purchase of the remaining non-controlling interests agreed upon within the scope of the acquisition of the Vysionics Group.

Further disclosures on derivatives are provided in Note 8.2 from page 171 on.

5.25 Other Non-current Non-financial Liabilities

The other non-current non-financial liabilities of 655 thousand euros (prior year 3,820 thousand euros) were reduced because of the reclassification of liabilities for virtual shares to current non-financial liabilities. This was done as the result of the non-renewal of the Executive Board contract of President and CEO Dr. Michael Mertin from September 20, 2016 and the associated payment for the granted virtual shares in 2017.

5.26 Current Trade Payables

Current trade payables included:

in thousand euros	31/12/2016	31/12/2015
Trade payables towards third parties	48,020	47,801
Trade payables towards unconsolidated associates and joint operations	293	374
Trade payables towards entities in which investments are held	89	180
Total	**48,402**	**48,355**

5.27 Other Current Financial Liabilities

Other current financial liabilities include:

in thousand euros	31/12/2016	31/12/2015
Other liabilities towards unconsolidated associates and joint operations	1,784	2,497
Derivatives	1,354	2,752
Interest payables from financial liabilities	762	841
Liabilites from acquiring associates	582	0
Liabilities from purchasing intangible assets and property, plant and equipment	0	3,163
Miscellaneous current financial liabilities	1,160	960
Total	**5,642**	**10,213**

Liabilities to unconsolidated associates and joint operations primarily include liabilities to a joint operation in the sum of the non-consolidated part of 1,552 thousand euros (prior year 2,338 thousand euros). Standard market interest rates were agreed for liabilities.

The aggregated item derivative financial instruments is explained in greater detail under Note 8.2 from page 171 on.

The liabilities from the acquisition of associated companies relate to the short-term portion of the put option, agreed as part of the acquisition of the Vysionics Group, for the purchase of the remaining shares.

Liabilities arising out of the purchase of intangible assets and property, plant and equipment were part of the other current liabilities in the prior year. In 2016, in deviation from the prior year, these were shown under trade liabilities in the sum of 1,988 thousand euros (prior year 3,163 thousand euros).

5.28 Other Current Non-financial Liabilities

in thousand euros	31/12/2016	31/12/2015
Liabilities from advance payments received	29,461	25,162
Liabilities to employees	12,816	6,845
Liabilities from other taxes	4,183	5,782
Accruals	3,295	4,097
Liabilities from social security	1,199	1,087
Liabilities from employer's insurance association	1,180	1,275
Liabilities from construction contracts	952	0
Miscellaneous current non-financial liabilities	523	829
Total	**53,609**	**45,078**

Liabilities to employees include, amongst other things, vacation entitlements and flextime balances as well as liabilities for virtual shares due to the reclassification from the non-current area.

Other tax liabilities mainly contain sales tax payables.

Liabilities arising from production contracts are shown under customer-specific production orders with a balance of liabilities in which the prepayments received and part billings exceed production costs incurred, including profit shares. In the fiscal year 2016, progress payments in the sum of 1,837 thousand euros (prior year 0) were offset against receivables arising from production contracts.

6 Disclosures on Cash Flows

Liquid funds comprise the cash and cash equivalents recognized in the statement of financial position in the sum of 91,961 thousand euros (prior year 83,824 thousand euros). Liquid funds are defined as the sum of cash on hand and demand deposits at banks with a 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 operating activities as well as 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 income and expenses. The cash flow from operating activities is determined by taking into account the changes in working capital, provisions and other operating balance items.

The cash flow from operating activities in the fiscal year just past totaled 100,102 thousand euros (prior year 85,124 thousand euros). The increase is primarily attributable to the improved earnings before tax (EBT) in the sum of 64,743 thousand euros (prior year 57,431 thousand euros) the increased adjustment for impairment losses included in earnings before tax (EBT) and impairment reversals in the sum of 1,982 thousand euros (prior year minus 2,319 thousand euros) as well as to the change in other assets and liabilities which reduced in the reporting year, affecting cash flow by 3,342 thousand euros (prior year increase of 4,407 thousand euros). In the prior year the payments for the expansion of capacities in Shanghai affected this cash flow item essentially by reducing cash flow, whereas in fiscal year 2016 a positive effect was achieved mainly through the reduction of receivables from grants and the increase in liabilities to employees.

The cash flow from investing activities is minus 71,339 thousand euros (prior year minus 7,152 thousand euros) and is characterized in particular by cash deposits within the framework of the current treasury management in the sum of 49,746 thousand euros (prior year 0). In addition, the cash flow from investing activities includes capital expenditure for property, plant and equipment in the sum of 25,681 thousand euros (prior year 17,743 thousand euros), of which 7,735 thousand euros is attributable to the construction of the new Technology Campus at the US site in Rochester Hills, Michigan. Capital expenditure for intangible assets in the sum of 3,446 thousand euros (prior year 2,500 thousand euros) primarily reflects the investments in connection with group projects, such as for example JOE and HCM and the software required for this purpose. Expenditure for tangible and intangible assets acquired during the fiscal year 2016 in the sum of 1,988 thousand euros (prior year 3,163 thousand euros) is only due in the subsequent years and does not affect the cash flow from investing activities in the fiscal year 2016. Further information on the investments is provided in the section Earnings, Financial and Asset Position in the Management Report from page 71 on.

The proceeds from disposal of consolidated companies include subsequent purchase price payments in connection with the sale of M+W Zander Holding AG in 2005 through the agreement reached on purchase price relevant subjects in the third quarter 2016. The proceeds resulting from the interest on this sum is shown under interest received.

In the year just past, a dividend was paid by an entity in which Jenoptik has a 4 percent investment. This is included in the proceeds from non-operating income from investments.

Proceeds from the sale of investment companies are the result of the sale of a minority investment in the Optics & Life Science segment. In the prior year the item included the proceeds from the sale of a minority investment in the Defense & Civil Systems segment.

Furthermore, cash flows from investing activities were marginally influenced by payments for the acquisition of consolidated entities. In the sum of minus 539 thousand euros. This relates to payments for the acquisition of additional shares in JENOPTIK Holdings UK Ltd. (formerly: Vysionics Ltd.) within the framework of exercising some of the existing put options. More information on the put options for shares of non-controlling shareholders in JENOPTIK Holdings UK Ltd. can be found under Note 2.4 from page 132 on in the Notes. In the prior year, this cash flow item primarily contained subsequent purchase price payments for the acquisition of 91.97 percent of JENOPTIK Holdings UK Ltd. in 2014.

Cash flows from financing activities amounted to minus 20,728 thousand euros (prior year minus 66,544 thousand euros). The cash outflows arising from the dividends paid increased compared with 2015 as a result of the increased dividend payment of 0.22 euros per share (prior year 0.20 euros per share).

The proceeds from the issuing of bonds and loans and the take-up of credits in the reporting year primarily include the cash inflows arising from the financing taken up for the construction of the new Technology Campus at the US site in Rochester Hills, Michigan. The fiscal year 2015 was significantly influenced by the repayment of the syndicated loan in the sum of 46,001 thousand euros and by offsetting inflows arising from the modification and extension of the debenture loans in the net sum of 32,604 thousand euros. In addition, real estate loans in the sum of 20,597 thousand euros were repaid early, in part by using cash inflows from the sale of two properties.

The change in the group financing includes payments from or to affiliated, non-consolidated companies and investments. In 2015 this item included a severance payment to the last, atypical silent shareholder in a real estate firm owned by the Jenoptik Group in the sum of 12,351 thousand euros.

The high interest payments in the fiscal year 2015 were largely attributable to one-off payments for financing ancillary expenses in conjunction with the extension of the syndicated loan as well as with the modifying and reissue of the debenture loans. The interest paid in the fiscal year just past does not include any such one-off payments.

Information regarding the allocation of free cash flows to the segments is provided in the Segment Report from page 169 on.

The total amounts for cash flows from operating, investing and financing activities of the proportionately consolidated joint operation are of minor significance for Jenoptik.

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

7 Disclosures on Segment Reporting

The segments are shown in accordance with the regulations laid down in 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 organizational and management structures within the Group as well as the internal reporting structure. The Executive Board analyzes the financial information using the key controlling parameters 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.

Since 2016, Jenoptik has been reporting on the Optics & Life Science, Mobility as well as Defense & Civil Systems segments.

The segment reporting in the prior year was on the basis of the Lasers & Optical Systems, Metrology, Defense & Civil Systems segments. The figures for the prior year were adjusted to the segment structure applicable since 2016.

The strategic and operating planning process was reorganized to match this new structure applicable as of January 2016. The future segment reporting corresponds to the new organizational structure of the Group. More information on the new organizational structure of the Jenoptik Group applicable since 2016 is provided in the Combined Management Report in the section General Group Information from page 54 on.

The Optics & Life Science segment pools the activities in the Healthcare & Industry as well as Optical Systems areas. Here Jenoptik is one of the few development and production partners worldwide for optical and microoptical systems and precision components which are used in the semiconductor equipment industry and in the areas of information and communication technology as well as security and defense. In addition, the segment develops and manufactures specific system and application solutions for global customers in the medical and life science sector. For the industry it offers optoelectronic high-performance components and modules as well as integrated solutions for laser, automotive and lighting applications.

The Mobility segment pools the activities in the automotive and traffic safety markets. Mobility and infrastructure are closely interlinked megatrends of the future. The components and system solutions of this segment increase the efficiency of products and production processes in the automotive market. In addition, the traffic flows in the global economic centers are daily becoming more complex. The solutions of the segment ensure that traffic infrastructure in the future will not only remain manageable but become safer.

The focus of the Defense & Civil Systems segment is on the fields of vehicle, rail and aircraft equipment, drive and stabilization technology, energy systems as well as opto-electronic systems for civil and military markets.

The segment Other contains JENOPTIK AG, JENOPTIK SSC GmbH, the real estate companies, JENOPTIK North America Inc., JENOPTIK (Shanghai) Precision Instruments and Equipment Co., Ltd. with its SSC and General Administration business units, JENOPTIK Korea Corporation, Ltd. and JENOPTIK JAPAN CO., Ltd., respectively with the General Administration business unit as well as JENOPTIK Asia-Pacific Pte. Ltd.

The item consolidation comprises the business relationships between the segments as well as the required reconciliations to be consolidated.

The business relationships between the entities of the Jenoptik Group segments are fundamentally based on prices set at arm's length.

There were no customer relationships with individual customers whose share of revenue is significant when measured against group revenue.

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

7.1 Segment Reporting

in thousand euros	Optics & Life Science	Mobility	Defense & Civil Systems	Other	Consolidation	Group
Revenue	221,546 (213,662)	247,661 (244,585)	218,307 (211,443)	36,572 (32,141)	−39,318 (−33,195)	684,769 (668,637)
thereof intragroup revenue	6,572 (5,214)	87 (1,275)	415 (306)	32,244 (26,400)	−39,318 (−33,195)	0 (0)
thereof external revenue	214,974 (208,449)	247,574 (243,311)	217,892 (211,138)	4,329 (5,741)	0 (0)	684,769 (668,637)
Germany	41,094 (47,016)	65,056 (54,307)	116,157 (110,784)	4,188 (5,721)	0 (0)	226,495 (217,827)
Europe	72,552 (63,087)	69,378 (74,952)	55,828 (60,056)	1 (6)	0 (0)	197,760 (198,100)
thereof Great Britain	3,789 (3,425)	22,219 (25,562)	11,408 (13,542)	0 (0)	0 (0)	37,416 (42,529)
thereof Netherlands	56,649 (47,454)	3,527 (7,740)	2,439 (1,728)	0 (0)	0 (0)	62,615 (56,922)
Americas	46,036 (42,709)	56,795 (53,915)	32,361 (31,789)	56 (3)	0 (0)	135,248 (128,416)
thereof USA	43,431 (41,007)	39,712 (32,276)	31,688 (30,790)	53 (0)	0 (0)	114,884 (104,074)
Middle East and Africa	13,085 (13,494)	9,022 (17,384)	2,991 (3,371)	0 (0)	0 (0)	25,098 (34,250)
Asia/Pacific	42,207 (42,143)	47,323 (42,752)	10,556 (5,139)	83 (11)	0 (0)	100,169 (90,045)
thereof China	10,791 (9,981)	24,619 (24,725)	935 (681)	1 (0)	0 (0)	36,345 (35,386)
thereof Singapore	22,674 (21,028)	160 (1,423)	301 (223)	0 (0)	0 (0)	23,135 (22,674)
EBITDA continuing operations	41,728 (28,321)	32,313 (35,673)	23,761 (23,135)	−3,012 (1,541)	−120 (−31)	94,671 (88,639)
EBITDA discontinued operations	0 (0)	0 (0)	0 (0)	2,261 (175)	0 (0)	2,261 (175)
EBIT continuing operations	33,404 (19,718)	24,448 (27,004)	19,109 (17,895)	−10,635 (−3,539)	−117 (−31)	66,209 (61,048)
EBIT discontinued operations	0 (0)	0 (0)	0 (0)	2,261 (175)	0 (0)	2,261 (175)
Investment income	−186 (−205)	710 (−92)	0 (349)	−220 (2,412)	0 (−906)	303 (1,558)
Research and development expenses	−14,345 (−15,026)	−20,260 (−21,014)	−7,359 (−5,634)	−546 (−591)	212 (491)	−42,298 (−41,774)
Free cash flow (before income taxes)	34,585 (26,891)	14,528 (34,559)	33,546 (14,554)	−2,284 (−3,583)	1 (−669)	80,376 (71,752)
Working capital	56,563 (56,152)	64,668 (58,351)	93,514 (106,026)	−4,717 (−4,961)	−111 (−31)	209,917 (215,537)
Order intake	236,615 (206,675)	267,371 (253,535)	231,566 (177,806)	36,463 (32,143)	−38,256 (−33,425)	733,759 (636,734)
Frame contracts	14,480 (5,519)	79,054 (11,513)	67,408 (42,120)	0 (0)	0 (0)	160,942 (59,151)
Total assets	190,624 (188,948)	225,286 (212,848)	176,851 (187,544)	718,487 (676,953)	−498,198 (−497,125)	813,051 (769,167)
Total liabilities	48,058 (56,622)	146,245 (142,374)	129,538 (143,208)	193,311 (171,323)	−180,479 (−179,493)	336,672 (334,035)

in thousand euros	Optics & Life Science	Mobility	Defense & Civil Systems	Other	Consolidation	Group
Additions to intangible assets, property, plant and equipment and investment property	5,947 (8,334)	13,850 (6,251)	4,129 (4,917)	3,545 (5,164)	−37 (0)	27,443 (24,666)
Scheduled depreciation and amortization	−8,171 (−8,257)	−7,866 (−8,476)	−4,652 (−5,240)	−6,917 (−6,796)	3 (0)	−27,603 (−28,770)
Impairment losses	−153 (−346)	0 (−192)	0 (0)	−1,145 (−270)	0 (0)	−1,298 (−808)
Reversals of impairment losses	0 (0)	0 (0)	0 (0)	439 (1,986)	0 (0)	439 (1,986)
Number of employees on average (without trainees)	1,108 (1,135)	1,188 (1,178)	822 (835)	286 (273)	0 (0)	3.404 (3,421)

EBITDA = Earnings before interest, taxes, depreciation and amortization
EBIT = Earnings before interest and taxes
Prior year figures are in parentheses.

7.2 Non-current Assets by Regions

in thousand euros	31/12/2016	31/12/2015
Group	273,678	282,932
Germany	197,389	206,959
Europe	43,894	53,357
thereof Great Britain	41,013	50,049
Americas	24,656	13,993
thereof USA	24,656	13,993
Asia / Pacific	7,739	8,623

Non-current assets comprise intangible assets, property plant and equipment as well as investment property. The assets are allocated to the individual regions according to the countries in which the consolidated entities have their legal seat.

8. Other Disclosures

8.1 Financial Management

The aim of the Jenoptik's financial management is to maintain a strong capital base in order to retain the trust of the shareholders, creditors and markets as well as to ensure the sustained development of the company. The Executive Board especially monitors the equity ratio and the net debt as part of the regular management reporting. In the event key ratios significantly take a downturn, alternative courses of action are worked out and the resulting measures are implemented.

8.2 Financial Instruments

General

Within the framework of its operating activities, the Jenoptik Group is exposed to credit and default, liquidity and market risks in the financial area. Market risks, in particular, include the 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 Management Report in section Risk and Opportunity Report (see page 101). Additional information on capital management disclosures is provided in the Economic Report in the chapter Financial Position (see page 77).

The risks described above impact on the financial assets and liabilities which are shown below. In this context, the carrying amount of the items "available-for-sale financial assets", "cash and cash equivalents", "contingent liabilities" and "derivatives with and without hedging realtions" correspond to their fair values, while the carrying amounts of the remaining items represent a reasonable approximation of their fair values. In the following presentation the non-current and current portion of each item of the statement of financial position was aggregated.

Financial assets:

in thousand euros	Valuation category according to IAS 39 [1]	Carrying amounts 31/12/2016	Valuation in statement of financial position according to IAS 39: Amortized costs	Fair value through other comprehensive income	Fair value through profit & loss	Valution according to IAS 17
Financial investments						
Securities	LAR	49,746 (0)	49,746 (0)			
Shares in unconsolidated associates and investments	AFS	16,598 (17,006)		16,598 (17,006)		
Available-for-sale financial assets	AFS	1,656 (2,585)		1,656 (2,585)		
Loans granted	LAR	1,294 (2,572)	1,294 (2,572)			
Financial assets held to maturity	HTM	280 (0)	280 (0)			
Trade receivables	LAR	131,745 (126,716)	131,745 (126,716)			
Other financial assets						
Receivables from lease agreements	–	845 (0)				845 (0)
Derivatives with hedging relations						
Forward exchange transactions	–	43 (343)		43 (343)		
Derivatives without hedging relations						
Interest & currency swap	FVTPL	210 (0)			210 (0)	
Forward exchange transactions	FVTPL	1,389 (0)			1,389 (0)	
Miscellaneous financial assets	LAR	1,862 (1,649)	1,862 (1,649)			
Cash and cash equivalents	LAR	91,961 (83,824)	91,961 (83,824)			

Prior year figures are in parentheses.
[1] LAR = Loans and receivables
HTM = Held to maturity
AFS = Available for Sale
FVTPL = Fair value through profit & loss

Financial liabilities:

in thousand euros	Valuation category according to IAS 39 [1]	Carrying amounts 31/12/2016	Valuation in statement of financial position according to IAS 39: Amortized costs	Fair value through other comprehensive income	Fair value through profit & loss	Valution according to IAS 17
Financial debts						
Liabilities to banks	FLAC	124,521 (127,975)	124,521 (127,975)			
Liabilities from finance lease agreements	–	86 (118)				86 (118)
Trade payables	FLAC	49,082 (49,538)	49,082 (49,538)			

in thousand euros	Valuation category according to IAS 39 1)	Carrying amounts 31/12/2016	Valuation in statement of financial position according to IAS 39: Amortized costs	Fair value through other comprehensive income	Fair value through profit & loss	Valution according to IAS 17
Other financial liabilities						
Contingent liabilities	FVTPL	1,284 (1,423)			1,284 (1,423)	
Derivatives with hedging relations						
Forward exchange transactions	–	2,770 (2,752)		2,770 (2,752)		
Derivatives without hedging relations						
Interest swaps	FVTPL	350 (539)			350 (539)	
Interest & currency swaps	FVTPL	0 (150)			0 (150)	
Forward exchange transactions	FVTPL	217 (0)			217 (0)	
Miscellaneous financial liabilities	FLAC	4.506 (8,261)	4,506 (8,261)			

Prior year figures are in parentheses.
1) FLAC = Financial liabilites at cost
FVTPL = Fair value through profit & loss

The classification of fair values is shown in the following overview of financial assets and liabilities measured:

in thousand euros	Carrying amounts 31/12/2016	Level 1	Level 2	Level 3
Available-for-sale financial assets	1,656 (2,585)	1,295 (2,286)	0 (0)	361 (299)
Derivatives with hedging relations (assets)	43 (343)	0 (0)	43 (343)	0 (0)
Derivatives without hedging relations (assets)	1,599 (0)	0 (0)	1,599 (0)	0 (0)
Contingent liabilities	1,284 (1,423)	0 (0)	0 (0)	1,284 (1,423)
Derivatives with hedging relations (liabilities)	2,770 (2,752)	0 (0)	2,770 (2,752)	0 (0)
Derivatives without hedging relations (liabilities)	567 (689)	0 (0)	567 (689)	0 (0)

Prior year figures are in parentheses.

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.

Fair values of available-for-sale financial assets are determined on the basis of stock exchange prices (level 1), respectively, discounted cash flows (level 3).

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, Reuters. If an interpolation of market data is applied, this is done on a straight-line basis.

The fair values of contingent liabilities are determined by taking into account the anticipated payment outflows discounted as at the balance sheet date. This applies to the put option within the framework of the acquisition of JENOPTIK Holdings UK (formerly: Vysionics Ltd.) agreed with the vendors for the transfer of the remaining non-controlling interests. The anticipated exercise price is 1,423 thousand euros. As at the balance sheet date, the anticipated cash outflows were revalued on the basis of the currently available information and the resulting adjustment of the liability recognized through profit or loss. Applying an interest rate of 0.47, appropriate to the terms, produced a recognized current value of 1,284 thousand euros as at December 31, 2016.

The profits and losses arising from the available-for-sale financial assets which were allocated to level 1, were recognized in equity in the sum of 352 thousand euros (prior year 201 thousand euros) not affecting the income statement. In the fiscal year 2016 reclassification was carried out from equity to profit or loss in the sum of minus 601 thousand euros (prior year 0) as a result of an impairment loss applied to available-for-sale financial assets.

The development of assets and liabilities allocated to level 3 is shown in the following table:

n thousand euros	Available-for-sale	Contingent liabilities
Balance at 1/1/2016	**299**	**1,423**
Additions	345	0
Disposals	0	−539
Gains and losses recognized in operating result	0	−243
Gains and losses recognized in financial result	−283	643
Balance at 31/12/2016	**361**	**1,284**

Credit and Default Risks

A credit or default risk is the risk of a customer or a contract partner of the Jenoptik Group failing to fulfill its 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 allowances. In addition, the Jenoptik Group is exposed to credit and default risks to cash and cash equivalents as well as securities. Account is taken of these risks through constant monitoring of the creditworthiness of our business partners based on the analysis of credit ratings, as well as through spreading the cash deposits between several banks within defined limits.

The maximum default risk corresponds to the carrying amount of the financial assets as at the reporting date in the sum of 297,628 thousand euros (prior year 234,695 thousand euros).

Impairments were recorded in the fiscal year for the the following financial assets:

in thousand euros	2016	2015
Financial investments	2,438	1,046
Trade receivables	2,289	4,399
Other financial assets	0	954
Total	**4,727**	**6,399**

Liquidity Risk

The liquidity risk entails the possibility of the Group being unable to to meet its financial obligations. In order to ensure our ability to pay as well as our financial flexibility at all times, the lines of credit and level of utilization as well as the net cash and cash equivalents are planned by means of a five-year financial plan as well as a monthly, rolling 12 week liquidity forecast. The liquidity risk is mitigated by effective cash and working capital management as well as through an unused, guaranteed framework line of credit in the sum of 231,488 thousand euros (prior year 222,406 thousand euros).

The Group has stable long term financing and solid liquidity reserves. These comprise a syndicated loan in the sum of 230,000 thousand euros, in debenture loans in the sum of 114,000 thousand euros, as well as net cash and cash equivalents in the sum of 91,961 thousand euros and current financial investmets in the sum of 50,540 thousand euros (details as at December 31, 2016 respectively). The contractually fixed extension option of the syndicated loan was exercised in 2016 and the term extended by one year to March 2021. A tranche of the debenture loans in the sum of 11,000 thousand euros was repaid in 2016. The next repayment in the sum of 11,000 thousand euros will take place in 2018. Further repayments are to be made in 2020 and 2022.

in thousand euros	Interest rates (range in %)	Carrying amounts 31/12/2016	Cash outflows Total	Up to 1 year	1 to 5 years	More than 5 years
Variable interest-bearing liabilities to banks	0.8 – 4.71 (0.8 – 5.41)	26,457 (30,124)	30,536 (31,614)	3,145 (3,969)	13,320 (13,431)	14,071 (14,214)
Fixed interest-bearing liabilities to banks	1.0 – 4.4 (1.0 – 4.4)	98,064 (97,851)	101,636 (106,843)	2,379 (12,966)	43,193 (37,422)	56,064 (56,455)
Fixed interest-bearing liabilities from lease agreements	0.9 – 7.6 (0.9 – 7.6)	86 (118)	86 (119)	41 (48)	45 (70)	0 (0)
Total		**124,608** **(128,093)**	**132,258** **(138,576)**	**5,565** **(16,983)**	**56,558** **(50,923)**	**70,135** **(70,669)**

Prior year figures are in parentheses.

The cash outflows for a period of up to one year essentially include the interest payments on existing debenture loans, interest payments and repayment arising from the real estate financing newly concluded in the United States in 2016 as well as planned inflows arising from the use of short-term lines of credit for the operational business in China.

The cash outflows in the time frame of between one to five years include the repayment of a debenture loan tranche not renewed in 2015 in the sum of 11,000 thousand euros and the new debenture loans with a five-year term. The repayment of the new debenture loans with a 7-year term has been taken into consideration in the time frame over five years.

Further details are provided under Note 5.22 on page 165.

Interest Rate Fluctuation Risk

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 2016 this mainly affected debenture loans issued in the sum of 114,000 thousand euros as well as securities in the sum of 49,746 thousand euros and the major part of the cash and cash equivalents in the sum of 91,961 thousand euros (at the balance sheet December 31, 2016 respectively).

in thousand euros	Carrying amounts 31/12/2016	31/12/2015
Interest-bearing financial assets	82,805	86,695
Variable interest	5,109	84,623
Fixed interest	77,695	2,072
Interest-bearing financial liabilities	124,608	128,093
Variable interest	26,457	30,124
Fixed interest	98,151	97,969

The opportunity gains and losses arising from a change in the market interest rate as at December 31, 2016 within a bandwidth of 100 basis points, are shown in the following table:

in thousand euros	31/12/2016	31/12/2015
Increase by 100 basis points		
Interest-bearing financial assets	828	867
Interest-bearing financial liabilities	−1,247	−1,281
Effect on earnings before tax	**−419**	**−414**
Decrease by 100 basis points		
Interest-bearing financial assets	−828	−867
Interest-bearing financial liabilities	1,247	1,281
Effect on earnings before tax	**419**	**414**

Within the context of the interest rate risk control, Jenoptik deploys various interest rate hedging instruments, e.g. interest rate swaps, caps and floors, as well as combined interest rate and currency swaps. The structure of the derivatives concluded for hedging against the risk of changing interest rates is shown below:

Interest swap	
Nominal amount	EUR 8,000 thousand
Term	April 28, 2012 to October 28, 2018
Fixed interest rate	1.985 percent p.a.
Variable interest rate	6-month Euribor

Interest and currency swap	
Nominal amount	CNY 17.980 thousand
Term	March 12, 2015 to March 12, 2025
Fixed interest rate	5.10 percent p.a.
Variable interest rate	6-month Euribor

As at the balance sheet date, there was one interest rate swap with a nominal volume of 8,000 thousand euros remaining from the hedging of debenture loans redeemed in 2015. As a result of the replacement of the underlying financing, there is no longer any direct reference to an underlying transaction for this interest rate derivative. The change in the market value of this interest rate swap in the sum of plus 122 thousand euros, as well as the change in the sum of 67 thousand euros in the market value of an interest rate swap with a nominal value of 4,000 thousand euros which expired in October 2016, was recorded through profit or loss in the statement of income.

In March 2015 a combined interest and currency swap in the amount of CNY 17,980 thousand with a term of ten years was concluded to hedge an internal group loan to finance real estate in Shanghai (China). Its market value of plus 361 thousand euros was recorded through profit or loss in the statement of income.

The interest rate hedging instruments are expected to give rise to the following outgoing payments:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Interest swap	174 (226)	86 (241)	0 (0)	260 (467)
Interest and currency swap	139 (127)	556 (510)	525 (574)	1,220 (1,211)

Prior year figures are in parentheses.

Foreign Currency Exchange Risk

Foreign currency risks are divided into two types: Conversion risk and transaction risk.

The conversion risk arises from the fluctuation in financial assets and liabilities denominated in foreign currencies caused by changes in foreign currency exchange rates. Since this is not associated with any cash flows that can be hedged, no hedging will be carried out.

The transaction risk is the result of the fluctuation 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 the operational business (in particular revenue and material purchases). Contractually agreed cash flows are hedged 1:1 via so-called micro-hedges. Planned future cash flows from pending transactions and transactions with a high probability of being realized are hedged within the framework of the anticipatory hedging.

JENOPTIK AG also hedges the expected cash flows from intragroup loans in foreign currencies, mainly JPY and GBP, using derivative financial instruments.

Forward exchange transactions with a nominal value of 81,536 thousand euros (prior year 65,586 thousand euros) existed as at the balance sheet date. A so-called cash flow hedge relationship with the respective underlying transaction was documented for the vast majority of these transactions. Where these are proven effective, their changes do not have to be recorded through profit or loss. The critical terms match method is used to measure the prospective effectiveness and the dollar offset method for the retrospective effectiveness.

Foreign exchange forward transactions are grouped according to sales and purchases in foreign currencies (against the EUR respectively) as follows:

in thousand euros	31/12/2016	31/12/2015
USD sale	59,556	32,632
USD purchase	122	3.471
GBP sale	21,010	28,389
GBP purchase	37	525
CNY sale	338	354
JPY sale	473	215

These currency forward transactions give rise to the following market values:

in thousand euros	31/12/2016	31/12/2015
Positive market values		
Derivatives with hedging relations		
non-current	2	1
current	41	342
Derivatives without hedging relations		
non-current	1,374	0
current	16	0
Total positive market values	1,432	343
Negative market values		
Derivatives with hedging relations		
non-current	1,570	0
current	1,201	2,752
Derivatives without hedging relations		
non-current	67	0
current	150	0
Total negative market values	2,987	2,752

The market values for hedging transactions for intra-group loans are included in the derivatives without hedges as the underlying transaction comprising intra-group receivables and liabilities is eliminated. The positive market values of these derivatives as at the balance sheet date amount to 1,383 thousand euros (prior year 0), the negative market values sum up to 169 thousand euros (prior year 0). The changes in total result in income of 1,214 thousand euros (prior year 0) recognized through profit and loss in the financial result.

At the balance sheet date there were forward exchange transactions without hedging relations or with hedging relations being released. The positive market values of these derivates of 6 thousand euros (prior year 0) as well as the negative market values of 48 thousand euros (prior year 0) were included in the above shown table within derivatives without hedging relations. The overall change of these derivatives resulted in expenses of 42 thousand euros (prior year 0) recorded within other operating result.

Gains and losses from cash flow hedges amounting to minus 2,252 thousand euros (prior year minus 570 thousand euros) were recognized in equity outside of profit or loss - a reclassification in the sum of 570 thousand euros (prior year minus 1,348 thousand euros) was carried out from other comprehensive income to profit or loss. This type of reclassification is normally associated with the recognition of the underlying transaction (e.g. recognition of revenue and booking of the corresponding receivable on billing) through profit or loss so the targeted netting effect of concluding the hedge transaction is recorded in the statement of income.

The foreign currency hedging transactions hedge against foreign currency risks in the sum of 33,210 thousand euros with a time frame up to the end of 2017. Foreign currency risks in the sum of 48,327 thousand euros are hedged with a time frame up to the end of 2020.

The main foreign exchange transactions of the Jenoptik Group involve US dollars. The table shows the net risk item based on US dollars:

in thousand euros	31/12/2016	31/12/2015
Financial assets	29,068	18,843
Financial liabilities	2,755	5,423
Foreign currency exchange rate risks resulting from items of the statement of financial position	**26,313**	**13,419**
Foreign currency exchange rate risks resulting from pending transactions	44,097	21,001
Transactions related to foreign currency items	**70,410**	**34,420**
Items effectively hedged by derivatives	59,434	29,161
Net risk item	**10,976**	**5,259**

As at the balance sheet date there was a net risk item based on US dollars in the sum of 10,976 thousand euros. A change in the US dollar exchange rate would have the following consequences:

	EUR / USD rate	Change of the net risk item (in thousand euros)
Closing date exchange rate 31/12/2016	1.0541 (1.0887)	
Increase by 5 percent	1.1068 (1.1431)	523 (250)
Decrease by 5 percent	1.0014 (1.0343)	−578 (−277)
Increase by 10 percent	1.1595 (1.1976)	998 (478)
Decrease by 10 percent	0.9487 (0.9798)	−1220 (−584)

Prior year figures are in parentheses.

8.3 Contingent Liabilities

The guarantee volume has decreased slightly compared to the prior year and as at December 31, 2016 amounted to 5,556 thousand euros (prior year 5,995 thousand euros).

in thousand euros	31/12/2016	31/12/2015
Guarantees for unconsolidated associates	5,556	5,662
Guarantees for third parties	0	333
Contingent liabilities from guarantees	5,556	5,995

There are no further guarantee obligations to third parties.

The guarantees for unconsolidated associates include the warranty bond in connection with the Klinikum 2000, Jena, in the sum of 5,500 thousand euros (prior year 5,500 thousand euros). The release from liability through the Free State of Thuringia remains pending. From Jenoptik's perspective, there are no longer any potential warranty claims, disputed claims have been reinsured 100 percent by the subcontractor.

8.4 Other Financial Obligations

The financial obligations resulting from rental contracts or lease agreements are shown in Note 5.4 from page 152 on.

In addition to order commitments for intangible assets and property, plant and equipment in the sum of 2,201 thousand euros (prior year 4,409 thousand euros) there are other financial liabilities in the sum of 73,552 thousand euros (prior year 54,724 thousand euros), in particular for order commitments for inventories in the sum of 61,603 thousand euros (prior year 47,671 thousand euros).

8.5 Legal Disputes

JENOPTIK AG and the entities of its Group are involved in court or arbitration proceedings. Provisions for litigation risks, respectively litigation expenses, were set up in the appropriate amounts in order to meet any possible financial burdens resulting from any court decisions or arbitration proceedings.

8.6 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 to the extent that 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 being related parties. In the 2016 fiscal year no exchange of goods or of services was transacted between the entity and members of these two bodies.

The following table shows the composition of the business relationships with unconsolidated entities and with the joint operation considered to be other related parties.

		Thereof with	
in tousand euros	Total	Unconsolidated entities	Joint operations
Revenue	2,727 (2,592)	2,330 (2,181)	397 (411)
Purchased services	3,608 (2,662)	3,039 (2,277)	569 (385)
Receivables from operations	896 (2,252)	852 (2,230)	44 (23)
Payables from operations	2,166 (3,051)	600 (706)	1,566 (2,345)
Loans	1,294 (1,072)	1,294 (1,072)	0 (0)

Prior year figures are in parentheses.

In fiscal year 2016 impairments on receivables to unconsolidated entites were recognized in the amount of 226 thousand euros (prior year 806 thousand euros). Reversals of impairments of 896 thousand euros (prior year 8 thousand euros) countered this effect.

In addition, there are group guarantees to related parties in the sum of 5,556 thousand euros (prior year 5,662 thousand euros).

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 47 ff. as well as in the section Required and Supplementary Disclosures under HGB in the Notes to the Consolidated Financial Statements on pages 181 und 184 .

9 Events after the Balance Sheet Date

On March 8, 2017 the Executive Board approved the submission of the consolidated financial statements to the Supervisory Board. The Supervisory Board has the task to review and approve the consolidated financial statements in its meeting on March 21, 2017.

Dividends. According to the Stock Corporation Act, the amount available for a dividend payment to the shareholders is based on the accumulated profit of the parent company JENOPTIK AG, as determined by the regulations of the HGB. For the 2016 fiscal year the accumulated profit of JENOPTIK AG totaled 73,807,624.13 euros, comprising net profit for 2016 in the amount of 39,387,813.03 euros plus retained profits of 34,419,811.10 euros.

On the basis of the good annual result for the past fiscal year 2016, the Executive Board recommends that the Supervisory Board propose at the 2017 Annual General Meeting a 14 percent increased dividend of 0.25 euros per qualifying no-par value share (prior year 0.22 euros). An amount in the sum of 14,309,528.75 euros should therefore be distributed from the JENOPTIK AG accumulated profit in the 2016 fiscal year and an amount of 59,498,095.38 euros should be carried forward.

Acquisition. In January 2017 the Jenoptik Group acquired all the shares in the British company Domestic and Commercial Security Limited (referred to below as: ESSA Technology), Saltash, Great Britain. For more detail information we refer to the information in Chapter 2.4 Corporate Acquisitions from page 132 on.

No further events of significance occurred after December 31, 2016.

10 Required disclosures under HGB

10.1 Required Disclosures in Compliance with § 315a of the HGB and § 264 (3) or § 264b of the HGB

The consolidated financial statements of JENOPTIK AG were prepared in accordance with the guidelines of the IASB, exempting an entity from preparing consolidated financial statements under HGB pursuant to § 315a of the HGB. Concurrently, the consolidated financial statements and the group management report are prepared in conformity with the Directive on Consolidated Accounting (83/349/EEC) of the European Union, with this directive being interpreted in accordance with its interpretation in the German Accounting Standard No. 1 (GAS 1)

"Exempting Consolidated Financial Statements in accordance with § 315a of the HGB" of the German Accounting Standards Committee e.V. (DRSC). 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 also 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 Diode Lab GmbH, Berlin
- JENOPTIK Industrial Metrology Germany GmbH, Villingen-Schwenningen
- JENOPTIK Laser GmbH, Jena
- JENOPTIK Optical Systems GmbH, Jena
- JENOPTIK Power Systems GmbH, Altenstadt
- JENOPTIK Polymer Systems GmbH, Triptis
- JENOPTIK Robot GmbH, Monheim am Rhein
- JENOPTIK SSC GmbH, 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:

	2016	2015
Employees	3,404	3,422
Trainees	116	120
Total	**3,520**	**3,542**

Of whom in the fiscal year 2016, an average of 32 (prior year 32) employees were employed in the proportionately consolidated entity.

10.3 Cost of Materials and Personnel Expenses

in thousand euros	2016	2015
Cost of materials		
Expenditures for raw materials, consumables and merchandise	220,775	207,263
Expenditures for services purchased	63,798	74,248
Total	**284,574**	281,511
Personnel expenses		
Wages and salaries	217,721	209,674
Social security, pension contributions and retirement benefits	28,406	29,955
Total	**246,127**	**239,629**

10.4 Financial Statement Auditor Fees

The fees for services rendered by our auditor as well as its affiliated companies or network companies amounted to:

in thousand euros	2016	2015
Financial statement audit services	732	974
Fees for other services	46	85
Other attestation services	0	60
Tax consulting services	3	9
Total	**780**	**1,128**

The fees for financial statement audit services relate to expenses for the audit of the consolidated financial statements of the Jenoptik Group as well as the statutory annual financial statements of the subsidiaries consolidated and the joint operations included in the consolidated financial statements.

Of the total expenses, financial statement services in the sum of 629 thousand euros (prior year 817 thousand euros), other services in the sum of 46 thousand euros (prior year 80 thousand euros), other attestation services in the sum of 0 thousand euros (prior year 60 thousand euros), as well as tax advisory services in the sum of 0 thousand euros (prior year 4 thousand euros) are attributable to the auditors of the consolidated financial statements Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Germany.

11. Corporate Governance

11.1 German Corporate Governance Code

On December 14, 2016 the Executive Board and the 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 May 5, 2015. The declaration is included in the Corporate Governance Report from page 38 on 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 can also be viewed in the offices of JENOPTIK AG (Carl-Zeiss-Straße 1, 07743 Jena).

Further informations look on page 38

11.2 Executive Board

The following persons were appointed as members of the Executive Board for the 2016 fiscal year:

	Other positions at:
Dr. Michael Mertin President & CEO of JENOPTIK AG	JENOPTIK Asia-Pacific Pte. Ltd. (GI; CCB member)
Hans-Dieter Schumacher Member of the Executive Board of JENOPTIK AG	None

CCB – comparable controlling body, GI – Group internal appointment

The following overview shows the remuneration of the Executive Board for the 2016 fiscal year. Along with direct and indirect remuneration components earned, this overview includes the fair value of share-based remuneration instruments used as long-term incentives (LTI).

Fringe benefits consist of contributions to disability and accident insurances as well as to the provision of company cars. For a more detailed explanation of the Executive Board remuneration system we refer to the chapter on Corporate Governance in the Remuneration Report which forms part of the Combined Management Report.

Retirement benefits paid to former Executive Board members amounted to EUR 210 thousand euros (prior year 290 thousand euros). The pension provisions for former Executive Board members totaled EUR 3,691 thousand euros (prior year as at the balance sheet date. 4,957 thousand euros). The expenses recorded for these existing provisions in the 2016 fiscal year comprised interest costs in the sum 80 thousand euros (prior year 69 thousand euros).

The market valuatiuon of the LTI granted to executive board members in prior years resulted in the fiscal year in expenses of 1,132 thousand euros (prior year 506 thousand euros).

In the 2016 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 loans to be redeemed.

Details on the shareholdings or related financial instruments of the members of the Executive Board can be found in Chapter 11.2.

	Dr. Michael Mertin (President & CEO)		Hans-Dieter Schumacher (Member of Executive Board)	
in thousand euros	2016	2015	2016	2015
Fixed remuneration	600.0	600.0	400.0	300.0
Variable remuneration	1,330.2	631.2	256.0	194.0
LTI of fiscal year – measured at issue price	0.0	631.2	256.0	194.0
LTI of fiscal year – share price development in fiscal year	0.0	230.9	5.5	71.0
Granted for protection of existing shares	61.3	50.8	4.7	0.0
Total remuneration	**1,991.6**	**2,144.1**	**922.2**	**758.9**
Retirement benefits	240.0	240.0	160.0	120.0
Fringe benefits	46.7	46.7	13.8	8.2
Total other benefits	**286.7**	**286.7**	**173.8**	**128.2**

11.3 Supervisory Board

The following persons were appointed as members of the Supervisory Board for the 2016 fiscal year:

			Meetings attended			
	Member of	Additional positions at	Supervisory Board	Audit Committee	Personnel Committee	Nomination Committee
Matthias Wierlacher Appointed since 2012, Chair since July 15, 2015 Chair of Thüringer Aufbaubank (Chair)	• Personnel Committee (Chair) • Nomination Committee (Chair) • Mediation Committee (Chair)	• Mittelständische Beteiligungsgesellschaft Thüringen mbH (SB member) • bm-t beteiligungsmanagement thüringen GmbH (GI, SB Chair) • ThüringenForst – Anstalt öffentlichen Rechts – (CCB member)	6/6		9/9	1/1
Michael Ebenau[1)] Appointed since 2007 Trade union secretary IG Metall Central Regional Office (Deputy Chair)	• Personnel Committee • Mediation Committee	• Samag Saalfelder Werkzeugmaschinen GmbH (CCB member)	6/6		9/9	
Astrid Biesterfeldt[1)] Appointed since 2014 Head of Product Management and Deputy Head of Business Unit Energy & Drive at JENOPATIK Advanced Systems GmbH,		None	6/6			
Evert Dudok Appointed since 2015 Executive Vice President CIS Airbus Defense & Space		• Dornier Consulting GmbH (GI, SB Chair) • EURASSPACE Gesellschaft für Raumfahrttechnik mbH (GI, SB member)	6/6			
Brigitte Ederer Appointed since 2012 Chair of the Supervisory Board of österreichische Bundesbahnen – Holding Aktiengesellschaft	• Personnel Committee (until March 21, 2016) • Nomination Committee (until March 21, 2016)	• Boehringer Ingelheim RCV GmbH, Austria (SB member) • Infineon Technologies Austria AG, Austria (SB member) • Österreichische Bundesbahnen-Holding Aktiengesellschaft (SB Chair) • Österreichische Bundesbahn Personenverkehr AG, Austria (SB member) • ÖBB Infrastruktur AG, Austria (SB member since September 2016, Chair since Oktober 2016) • Rail Cargo Austria AG, Austria (SB member) • Schoeller-Bleckmann Oilfield Equipment AG, Austria (SB member) • Wien Holding GmbH, Austria (CCB Chair)	4/6		1/2 (until March 21, 2016)	
Thomas Klippstein[1)] Appointed since 1996 Chairman of Group Works Council of Jenoptik	• Personnel Committee • Audit Committee	None	6/6	5/5	8/9	

	Member of	Additional positions at	Meetings attended: Supervisory Board	Audit Committee	Personnel Committee	Nomination Committee
Dieter Kröhn[1)] Appointed from October 1999 to June 2007 and since December 2010 Process coordinator at JENOPTIK Advanced Systems GmbH	• Audit Committee	None	6/6	5/5		
Sabine Lötzsch[1)] Appointed since 2012 Mathematician, Manager of IT Helpdesk of JENOPTIK SSC GmbH	• Personnel Committee (until March 21, 2016)	None	6/6		2/2 (until March 21, 2016)	
Doreen Nowotne Appointed since 2015 Freelance Business Consultant	• Audit Committee (Deputy Chair)	• Brenntag AG (SB member)	6/6	5/5		
Heinrich Reimitz Appointed since 2008 Member of the Executive Board of HPS Holding GmbH, Austria	• Audit Committee (Chair) • Personnel Committee • Nomination Committee	• Ühinenud Farmid AS, Estland (CCB member)	6/6	5/5	9/9	1/1
Stefan Schaumburg[1)] Appointed since 2012 Division chair and trade union secretary of IG Metall Executive Board, Frankfurt	• Personnel Committee • Mediation Committee	• GKN Holdings Deutschland GmbH (Deputy SB Chair)	6/6		7/9	
Prof. Dr. rer. nat. habil., Dipl.-Physiker Andreas Tünnermann Appointed since 2007 Director of the Institute for Applied Physics and Lecturer for Applied Physics at the Friedrich Schiller University and Head of the Fraunhofer Institute for Applied Optics and Fine Mechanics, Jena	• Personnel Committee • Mediation Committee • Nomination Committee	• Docter Optics GmbH (CCB member)	6/6		9/9	1/1

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

Supervisory Board Remuneration

For the 2016 fiscal year the members of the Supervisory Board received the following remuneration in total:

in thousand euros	Total remuneration	Thereof			Value added tax [1]
		Fixed annual remuneration 2016	Variable remuneration 2016	Meeting fees (plus reimbursement of expenses)	
Matthias Wierlacher (Chair)	111.3	71.4	23.8	16.1	17.8
Michael Ebenau (Deputy Chair)	73.8	41.7	17.9	14.3	11.8
Astrid Biesterfeldt	43.5	23.8	11.9	7.8	6.9
Evert Dudok	41.2	23.8	11.9	5.5	5.7
Brigitte Ederer	37.7	21.1	10.0	6.6	–
Thomas Klippstein	73.2	41.7	11.9	19.6	11.7
Dieter Kröhn	60.1	35.7	11.9	12.5	9.6
Sabine Lötzsch	45.9	25.1	11.9	8.9	7.3
Doreen Nowotne	69.3	41.7	11.9	15.7	11.1
Heinrich Reimitz	81.0	50.0	10.0	21.0	–
Stefan Schaumburg	57.3	29.8	11.9	15.6	9.1
Prof. Dr. rer. nat. habil. Andreas Tünnermann	63.1	35.7	11.9	15.5	10.1
Total	757.4	441.5	156.9	159.1	101.1

[1] Included in fixed annual remuneration, variable remuneration and meeting fees; Mrs. Brigitte Ederer as well Herr Mag. Heinrich Reimitz have a limited tax liability in Germany due to their place of residence being abroad, since their remuneration is subject to a withholding tax in accordance with § 50 a (1) No. 4 of the German Income Tax Act, no value added tax was incurred.

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

At the end of the 2016 fiscal year the members of the Executive Board and the Supervisory Board together held 42,507 shares or related financial instruments, consequently less than 1 percent of the share capital of JENOPTIK AG.

12 List of Shareholdings of the Jenoptik Group as at December 31, 2016 in accordance with § 313 (2) of the German Commercial Code (HGB)

No.	Name and legal seat of company	Shareholding of JENOPTIK or shareholder directly in percent	Equity 31/12/2016 in thousand euros	Earnings for 2016 in thousand euros
	1.1. Consolidated associates – direct shareholdings			
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 (formerly ESW GmbH), Wedel, Germany	100		
5	JENOPTIK Optical Systems GmbH, Jena, Germany	100		
6	JENOPTIK Laser GmbH, Jena, Germany	100		
7	JENOPTIK Polymer Systems GmbH, Triptis, Germany	100		
8	SAALEAUE Immobilien Verwaltungsgesellschaft mbH & Co. Vermietungs KG, Pullach im Isartal, Germany, i.L. [7]	100		
9	JENOPTIK SSC GmbH, Jena, Germany	100		
10	JENOPTIK North America, Inc., Jupiter (FL), USA	100		
11	JENOPTIK Asia-Pacific Pte. Ltd., Singapore, Singapur	100		
	– indirect shareholdings			
12	JENOPTIK Traffic Solutions Switzerland AG (formerly Multanova AG), Uster, Switzerland	100		
13	JENOPTIK ROBOT MALAYSIA SDN BHD, Kuala Lumpur, Malaysia	100		
14	ROBOT Nederland B.V., Riel, Netherlands	100		
15	JENOPTIK Holdings UK Ltd. (formerly Vysionics Ltd.), Milton Keynes, Great Britain	94.64		
16	Vysionics ITS Holdings Ltd., Milton Keynes, Great Britain	100 [1]		
17	JENOPTIK Traffic Solutions UK Ltd. (formerly Vysionics ITS Ltd.), Camberley, Great Britain	100 [1]		
18	Computer Recognition Systems Ltd., Milton Keynes, Great Britain	100 [1]		
19	JENOPTIK Industrial Metrology Switzerland SA, Peseux, Switzerland	100		
20	JENOPTIK Industrial Metrology France S.A., Bayeux, France	100		
21	JENOPTIK Power Systems GmbH, Altenstadt, Germany	100		
22	PHOTONIC SENSE GmbH, Eisenach, Germany	100		
23	JENOPTIK Diode Lab GmbH, Berlin, Germany	100		
24	Traffipax, LLC, Jupiter (FL), USA	100		
25	JENOPTIK Automotive North America, LLC, Rochester Hills (MI), USA	100		
26	JENOPTIK INDUSTRIAL METROLOGY DE MEXICO, S. DE R.L. DE C.V., Saltillo, Mexico	100		
27	JENOPTIK Optical Systems, LLC, Jupiter (FL), USA	100		
28	JENOPTIK Advanced Systems, LLC, El Paso (TX), USA	100		
29	JENOPTIK (Shanghai) Precision Instrument and Equipment Co., Ltd., Shanghai, China	100		
30	JENOPTIK Australia Pty Ltd, Sydney, Australia	100		
31	JENOPTIK Korea Corporation, Ltd., Pyeongtaek, Korea	66.6		
32	JENOPTIK JAPAN CO. Ltd., Yokohama, Japan	66.58		

No.	Name and legal seat of company	Shareholding of JENOPTIK or shareholder directly in percent	Equity 31/12/2016 in thousand euros	Earnings for 2016 in thousand euros
	1.2. Unconsolidated associates – direct shareholdings			
33	JENOPTIK Einundsiebzigste Verwaltungsgesellschaft mbH, Jena, Germany	100	23	3)
34	JENOPTIK MedProjekt GmbH, Jena, Germany	100	0	–1
35	FIRMICUS Verwaltungsgesellschaft mbH, Jena, Germany	100	41 9)	3 9)
36	SAALEAUE Immobilien Verwaltungsgesellschaft mbH, Pullach im Isartal, Germany, i.l. 7)	100	50 9)	–7 9)
37	LEUTRA SAALE Gewerbegrundstücksverwaltungsgesellschaft mbH, Grünwald, Germany, i.l. 7)	100	316	–1,474
	– indirect shareholdings			
38	AD-Beteiligungs GmbH, Monheim am Rhein, Germany	100	229 9)	–2 9)
39	RADARLUX Radar Systems GmbH, Leverkusen, Germany	100	–415	–127
40	Traffipax do Brasil Ltda., Sao Paulo, Brazil	100	–1,086 9)	–277 9)
41	JENOPTIK KATASORB GmbH, Jena, Germany	100	300	3)
42	PHOTONIC SENSE, INC., Nashua (NH), USA	100	3	0
43	JENOPTIK Components LLC, St. Petersburg, Russia, i.l. 7)	100	–535	1
44	JENOPTIK India Private Limited, Bangalore, India	100 4)	437	–105
45	JENOPTIK do Brasil Instrumentos de Precisão e Equipamentos Ltda., Sao Paulo, Brazil	100	388	239
46	JENOPTIK Saudi Arabia, LLC, Jeddah, Saudi Arabia	90		2)
	2. Joint operations			
47	HILLOS GmbH, Jena, Germany	50		
	3. Investments – direct shareholdings			
48	JENAER BILDUNGSZENTRUM gGmbH SCHOTT CARL ZEISS JENOPTIK, Jena, Germany	33.33	705 9)	6 9)
	– indirect shareholdings			
49	JT Optical Engine Verwaltungs GmbH, Jena, Germany, i.l. 7)	50 5)	25 9)	1 9)
50	JT Optical Engine GmbH+Co. KG, Jena, Germany, i.l. 7)	50 5)	513 9)	–51 9)
51	JENOPTIK Robot Algérie SARL, Algiers, Algeria	49	146 9)	–28 9)
52	HOMMEL CS s.r.o., Teplice, Czech Republic	40	616 9)	32 9)
53	TELSTAR-HOMMEL CORPORATION, Ltd., Pyeongtaek, Korea	33.4	12 9)	2 9)
54	Dr. Teschauer AG, Chemnitz, Germany, i.i. 8)	24.99 6)		2)
55	Zenteris GmbH, Jena, Germany, i.i. 8)	24.9 5)		2)

1) Included in the financial statements of JENOPTIK Holdings UK Ltd. (formerly Vysionics Ltd.)
2) No data is available.
3) Profit and loss transfer agreement (HGB) with the parent company
4) Fiscal year not the calendar year – as of March 31
5) Fiscal year not the calendar year – as of June 30
6) Fiscal year not the calendar year – as of October 31
7) i.l. = in liquidation
8) i.i. = in insolvency
9) Disclosures for the financial statements 2015

Jena, March 8, 2017
JENOPTIK AG

The Executive Board

Assurance by the Legal Representatives

We give our assurance that, to the best of our knowledge and in accordance with the applicable accounting principles, the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Group and that the course of business, including the business result and the position of the Group, are portrayed in such a way in the Group Management Report that a true and accurate picture is conveyed and that the significant opportunities and risks of the Group's future development are fairly described.

Jena, March 8, 2017

Dr. Michael Mertin
President & CEO

Hans-Dieter Schumacher
Chief Financial Officer

Audit Opinion

We have issued the following opinion on the consolidated financial statements and the group management report:

"We have audited the consolidated financial statements prepared by the JENOPTIK AG, Jena, comprising the statement of comprehensive income, the statement of financial position, the statement of changes in equity, the statement of cash flows and the notes to the consolidated financial statements, together with the group management report for the fiscal year from January 1 to December 31, 2016. The preparation of the consolidated financial statements and the group management report in accordance with IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315a (1) HGB ["Handelsgesetzbuch": "German Commercial Code"] are the responsibility of the parent company's management. Our responsibility is to express an opinion on the consolidated financial statements and on the group management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with Sec. 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the group management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of entities to be included in consolidation, the accounting and consolidation principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements and the group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRSs as adopted by the EU, the additional requirements of German commercial law pursuant to Sec. 315a (1) HGB and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The group management report is consistent with the consolidated financial statements, complies with legal requirements and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development."

Stuttgart, March 8, 2017

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Blesch	Pester
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]

Information

The Group's extended management board, the Executive Management Board, is supported by the JENOPTIK AG Scientific Advisory Council on strategic and operational decisions. This board of 13 scientists from prestigious institutions and universities as well as 13 Jenoptik employees was restructured in autumn 2016 to match the technological fields and business models in the group.

Executive Management Board

Dr. Michael Mertin, President & Chief Executive Officer

Dr. Michael Mertin had been COO since October 2006 and has been President & CEO of JENOPTIK AG since July 2007. He is responsible for the operational business as well as the areas of legal affairs, strategy, business development and innovation management, communication and marketing, quality, processes, procurement and supply chain management, internal audit, corporate governance, corporate social responsibility, data protection, Shared Services (including occupational safety, health protection and environmental protection) as well as Human Resources Director for HR.

In September 2016, Michael Mertin announced that he would not be extending his Executive Board contract of employment which runs up to June 30, 2017. The Supervisory Board appointed Dr. Stefan Traeger as the new Chairman of the Executive Board on December 14, 2016. He will take up the position in the 2nd quarter of 2017.

Hans-Dieter Schumacher, Chief Financial Officer

Hans-Dieter Schumacher has been the Chief Financial Officer of JENOPTIK AG since April 1, 2015. He is responsible for the areas of accounting and controlling, treasury, taxes, risk management and compliance, mergers and acquisitions, investor relations, strategic management of the real estate portfolio as well as the IT department. Hans-Dieter Schumacher is appointed until March 31, 2018.

Bernhard Dohmann

Mobility segment
Head of the Traffic Solutions division

Volkmar Hauser

Mobility segment
Head of the Automotive division

Melanie Jaklin

Head of Human Resources, Purchasing, Supply Chain & Shared Services

Wolfgang Keller

Optics & Life Science segment
Head of the Healthcare & Industry division

Dr. Stefan Stenzel

Defense & Civil Systems segment
Head of the Defense & Civil Systems division

Scientific Advisory Council – External Members

(as at January 2017)

Prof. Dr.-Ing. habil. Jürgen Beyerer
Fraunhofer Institute IOSB, Karlsruhe

Prof. Dr. Ing. Joachim Denzler
Friedrich Schiller University Jena, Computer Vision Group

Prof. Dr. Gerhard Fettweis
Technical University Dresden, Faculty of Electrical Engineering

Prof. Dr. Ing. Georg Jacobs
RWTH Aachen, Institute for Machine Elements and Machine Design

Prof. Dr. Karsten Lemmer
German Aerospace Center (DLR), Institute of Transportation Systems

Prof. Dr. rer. nat. habil. Jürgen Petzoldt
Technical University Ilmenau, Department of Electrical Engineering and Information Technology, Institute for Electric Power and Control Engineering

Prof. Dr. rer. nat. Jürgen Popp
Leibniz Institute of Photonic Technology IPHT, Jena

Prof. Dr. rer. pol. Michael Schefczyk
Technical University Dresden, Faculty of Business and Economics, Chair of Entrepreneurship and Innovation

Johannes Heinrich Schleifenbaum
RWTH Aachen, Digital Additive Production DAP
Fraunhofer Institute for Laser Technology ILT

Prof. Dr. Patrick Spieth
University of Kassel, Institute of Management and Business Studies

Prof. Dr. Hartwig Steffenhagen
Aachen

Prof. Dr. Günther Tränkle
Ferdinand Braun Institute, Leibniz Institute for High-Frequency Technology, Berlin

Prof. Dr. Andreas Tünnermann
Fraunhofer Institute for Applied Optics and Precision Engineering IOF, Jena

Glossary

B

Book-to-bill ratio – Ratio of order intake to revenue for a fiscal year. A ratio of over 1.00 indicates that the order intake surpassed revenue for the fiscal year, likely leading to an increase in order backlog.

D

Debenture loan – In addition to bank loans and bonds, another form of (long-term) external financing for companies. The borrower is granted a loan against a debenture by large financial intermediaries (in general credit institutions) without having to access the organized capital market.

E

EBIT – Income from operations – earnings before interest and taxes.

EBITDA – Earnings before interest, taxes, depreciation and amortization (including impairment losses and reversals of impairment losses).

EBIT margin – Return on revenue – EBIT in relation to revenue.

Equity ratio – Indicator used in capital structure analysis stating the relative proportion of equity in total equity and liabilities (equity in relation to total equity and liabilities).

F

Frame contracts – These are contracts or framework agreements the amount and probability of occurrence of which cannot yet be determined exactly.

Free cash flow – Available cash flow. The free cash flow is regarded by financing institutions as an indicator of the ability to repay loans and is therefore often used as a basis to calculate financing capacity. It is calculated from the cash flows from operating activities (before income taxes and interest) less capital expenditure in property, plant, equipment and intangible assets.

G

Goodwill – Difference between the purchase price of a newly acquired company and its equity (assets minus liabilities).

Go Lean Program – Internal Group program launched in 2012 with aim of endtoend process improvements and an increase in operational performance. It will maximize farreaching synergies thanks to a lean production system, consolidation of functions in areas such as purchasing and support for operational units from central bodies.

Gross margin – The gross margin indicates how much (in percent of revenue) a company is earning after deducting cost of sales. The indicator helps to assess how efficiently a company is operating.

J

Jenoptik Excellence Program (JEP) – This internal Group program was launched in 2012. It is aimed at generating cost savings, primarily in production, development and logistical processes, as well as in supply chain management.

Jenoptik One ERP project (JOE) – The company's largest program for efficient standardization of processes and settlement systems throughout the company has been gradually rolled-out throughout the company.

L

Lean campus – Within the framework of the Go Lean Program employees and management receive training in the topics such as comprehensive lean methods expertise, the improvement tools and the personal development of the participants.

M

Market capitalization – Number of shares multiplied by the share price.

Market Excellence – A groupwide program aimed at optimizing the sales organization and processes. It combines major projects from the sales, after-sales/service as well as pricing. Its aim is to ensure the organization is consistently geared toward market requirements.

N

Net debt – Calculated by deducting cash and securities from the total of noncurrent and current financial debt.

P

PoC/Percentage of completion method – Procedure in accordance with IAS 11 which computes revenue, order costs and order results on a longterm customerspecific contract relative to the degree to which the project is completed.

R

ROCE (return on capital employed) – Is calculated by dividing EBIT by the average-tied operating capital. The average-tied operating capital includes non-current non-interest-bearing assets (such as intangible assets including goodwill, property, plant and equipment and investment properties) plus current non-interest-bearing assets (primarily inventories, receivables from the operating business activities and other current receivables) less non-interestbearing borrowings (such as provisions – excluding pensions and taxes – liabilities from the operating business activities and other non-interestbearing liabilities). The calculation of the average takes into account twelve month-end balances in the period under review and the opening balance at the start of the year.

E

Swap – An agreement between two companies to exchange cash flows. In the case of an interest swap, fixed interest payments are swapped for floating payments for a nominal fee.

Syndicated loan – The syndicated loan is a credit granted jointly by several banks (members of a consortium) to one debtor. One or several banks may take the lead.

W

Working capital – The total of trade receivables and receivables from construction contracts as well as inventories minus trade payables and payables from construction contracts as well as advance payments received.

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Historical Summary of Financial Data

		2010 [1]	2011	2012 [2]	2013	2014	2015	2016
Statement of Income								
Revenue	million euros	478.8	543.3	585.0	600.3	590.2	668.6	684.8
Optics & Life Science	million euros	n/a	n/a	n/a	n/a	n/a	213.7	221.5
Mobility	million euros	n/a	n/a	n/a	n/a	n/a	244.6	247.7
Defense & Civil Systems	million euros	n/a	n/a	n/a	n/a	n/a	211.4	218.3
Foreign revenue	million euros	279.7	321.5	376.9	371.9	379.1	450.8	458.3
of revenue	%	58.4	59.2	64.4	62.0	64.2	67.4	66.9
Cost of sales	million euros	328.6	359.3	381.6	394.6	384.7	442.5	446.9
Gross profit	million euros	150.2	184.0	203.4	205.7	205.5	226.2	237.9
Gross margin	%	31.4	33.9	34.8	34.3	34.8	33.8	34.7
R+D expenses	million euros	28.1	32.0	36.0	39.8	39.4	41.8	42.3
Selling expenses	million euros	53.7	61.9	65.1	66.6	67.5	72.6	73.6
Administrative expenses	million euros	36.5	38.9	42.6	46.4	51.1	54.0	57.6
EBIT	million euros	29.0	49.2	54.8 [3]	52.7 [3]	51.6 [3]	61.2 [3]	68.5 [3]
Optics & Life Science	million euros	n/a	n/a	n/a	n/a	n/a	19.7	33.4
Mobility	million euros	n/a	n/a	n/a	n/a	n/a	27.0	24.4
Defense & Civil Systems	million euros	n/a	n/a	n/a	n/a	n/a	17.9	19.1
EBIT margin	%	6.1	9.0	9.4 [3]	8.8 [3]	8.7 [3]	9.2 [3]	10.0 [3]
Optics & Life Science	%	n/a	n/a	n/a	n/a	n/a	9.2	15.1
Mobility	%	n/a	n/a	n/a	n/a	n/a	11.0	9.9
Defense & Civil Systems	%	n/a	n/a	n/a	n/a	n/a	8.5	8.8
EBT	million euros	15.0	36.2	46.1 [3]	47.2 [3]	46.1 [3]	57.4 [3]	64.7 [3]
EBT margin	%	3.1	6.7	7.9 [3]	7.9 [3]	7.8 [3]	8.6 [3]	9.5 [3]
Earnings after tax	million euros	9.0	35.3	50.2	47.2	41.6	49.9	57.5
EPS	euros	0.16	0.62	0.88	0.82	0.73	0.87	1.00
Cost of materials	million euros	207.6	230.4	242.0	250.9	253.6	281.5	284.6
Material intensity	%	41.0	41.1	40.3	40.7	41.3	40.4	40.2
R+D output	million euros	43.1	46.7	50.6	52.2	50.4	53.1	57.4
R+D ratio	%	9.0	8.6	8.6	8.7	8.5	7.9	8.4
EBITDA	million euros	60.1	76.8	77.7 [3]	74.8 [3]	76.1 [3]	88.8 [3]	96.9 [3]
Financial result	million euros	−14.0	−13.0	−8.7	−5.5	−5.5 [3]	−3.8	−3.7 [3]
Cash Flows and Capital Expenditure								
Cash flows from operating activities	million euros	41.6	65.6	66.6	60.6	46.3	85.1	100.1
Free cash flow (before income tax)	million euros	31.6	44.0	43.7	47.0	22.5	71.8	80.4
Capital expenditures	million euros	14.5	25.1	31.2	24.4	29.9	24.7	27.5
Personnel								
Employees on average		2,800	2,894	3,066	3,233	3,375	3,421	3,404
Revenue per employee	thousand euros	171.0	187.7	190.8	185.7	174.9	195.4	201.2
Personnel expenses	million euros	177.5	183.8	201.2	210.9	219.7	239.6	246.1
Personnel intensity	%	37.1	33.8	34.4	35.1	37.2	35.8	35.9

		2010 [1]	2011	2012 [2]	2013	2014	2015	2016
Statement of Financial Position								
Non-current assets	million euros	310.7	312.4	333.8	329.8	389.5	382.8	371.9
Intangible assets and property, plant and equipment	million euros	211.8	207.1	213.9	216.0	274.0	278.4	269.2
Investment property	million euros	22.1	20.6	19.6	19.1	16.4	4.5	4.4
Financial assets	million euros	16.8	22.8	27.2	20.1	21.1	21.7	19.0
Other non-current assets	million euros	9.1	4.9	4.8	4.4	1.8	4.5	5.0
Deferred tax assets	million euros	50.9	57.0	68.4	70.3	76.3	73.6	74.2
Current assets	million euros	318.2	331.1	335.8	362.6	382.2	386.3	441.2
Inventories	million euros	148.8	169.1	169.3	165.1	179.0	167.1	159.3
Trade and other receivables	million euros	103.3	111.9	120.7	125.3	133.4	135.0	139.3
Current financial assets and cash	million euros	66.1	50.1	45.9	72.2	69.8	84.2	142.5
Equity	million euros	282.5	298.4	330.3	367.1	386.6	435.1	476.4
Share capital	million euros	148.8	148.8	148.8	148.8	148.8	148.8	148.8
Non-current liabilities	million euros	165.3	173.7	177.6	173.1	216.6	169.5	175.4
Pension provisions	million euros	6.4	18.4	31.2	28.2	41.0	36.1	37.6
Other non-current provisions	million euros	17.6	12.4	12.1	11.0	10.0	10.3	12.3
Non-current financial liabilities	million euros	125.9	123.1	115.8	115.2	156.8	113.2	120.5
Other non-current liabilities	million euros	11.7	15.8	15.4	16.9	7.0	7.9	4.8
Deferred tax liabilities	million euros	3.7	4.0	3.1	1.8	1.7	2.0	0.1
Current liabilities	million euros	181.1	171.3	161.7	152.3	168.5	164.5	161.3
Tax provisions	million euros	2.4	6.8	6.1	4.8	5.7	3.3	3.4
Other current provisions	million euros	61.9	49.7	52.1	37.4	37.7	42.7	46.2
Current financial liabilities	million euros	19.5	4.1	4.7	1.2	5.1	14.9	4.1
Trade payables and other liabilities	million euros	97.3	110.7	98.9	109.0	120.0	103.6	107.7
Total equity and liabilities	million euros	628.9	643.5	669.6	692.4	771.7	769.2	813.1
Balance sheet ratios								
Equity ratio	%	44.9	46.4	49.3	53.0	50.1	56.6	58.6
Asset coverage		202.6	216.0	230.7	261.0	256.5	279.5	301.7
Gross debt	million euros	145.3	127.2	120.5	116.4	161.9	128.1	124.6
Net debt	million euros	79.3	77.1	74.5	44.1	92.1	43.9	–17.9
Working capital	million euros	164.6	190.4	202.8	195.6	217.5	215.5	209.9
Working capital ratio	%	34.4	35.0	34.7	32.6	36.9	32.2	30.7
Debt to equity ratio		1.2	1.2	1.0	0.9	1.0	0.8	0.7
Total return on investment based on EBT	%	2.4	5.6	6.9	6.8	6.0	7.5	8.0 [3]
Return on equity based on EBT	%	5.3	12.1	14.0	12.9	11.9	13.2	13.6 [3]
ROCE			15.6	15.6	14.0	13.0	13.5	15.6 [1]
Dividend key figures								
Dividend per share	euro		0.15	0.18	0.20	0.20	0.22	0.25 [4]
Pay out ratio on earnings attributable to shareholders	%		24.3	20.5	24.3	27.5	25.4	24.9 [4]
Dividend yield based on year-end stock exchange price	%		3.3	2.4	1.6	1.9	1.5	1.5 [4]

1) Continuing operations
2) Adjusted to initial application of IAS 19R
3) Including discontinued operations
4) Subject to the approval by the annual general meeting

Key Figures of Jenoptik by Segment

	in million euros	2016	2015	Change in %
Revenue	**million euros**	**684.8**	**668.6**	**2.4**
Optics & Life Science	million euros	221.5	213.7	3.7
Mobility	million euros	247.7	244.6	1.3
Defense & Civil Systems	million euros	218.3	211.4	3.2
Other [1]	million euros	−2.7	−1.1	−160.4
EBITDA [2]	**million euros**	**96.9**	**88.8**	**9.1**
Optics & Life Science	million euros	41.7	28.3	47.3
Mobility	million euros	32.3	35.7	−9.4
Defense & Civil Systems	million euros	23.8	23.1	2.7
Other [1]	million euros	−0.9	1.7	−151.7
EBIT [2]	**million euros**	**68.5**	**61.2**	**11.8**
Optics & Life Science	million euros	33.4	19.7	69.4
Mobility	million euros	24.4	27.0	−9.5
Defense & Civil Systems	million euros	19.1	17.9	6.8
Other [1]	million euros	−8.5	−3.4	−150.1
EBIT margin [2]	**%**	**10.0**	**9.2**	
Optics & Life Science	%	15.1	9.2	
Mobility	%	9.9	11.0	
Defense & Civil Systems	%	8.8	8.5	
R + D OUTPUT	**million euros**	**57.4**	**53.1**	**8.2**
Optics & Life Science	million euros	21.9	21.0	4.5
Mobility	million euros	24.5	24.5	0.0
Defense & Civil Systems	million euros	10.6	7.5	42.4
Other [1]	million euros	0.3	0.1	234.8
Order intake	**million euros**	**733.8**	**636.7**	**15.2**
Optics & Life Science	million euros	236.6	206.7	14.5
Mobility	million euros	267.4	253.5	5.5
Defense & Civil Systems	million euros	231.6	177.8	30.2
Other [1]	million euros	−1.8	−1.3	−39.8

		31/12/2016	31/12/2015	Change in %
Order backlog	**million euros**	**405.2**	**373.4**	**8.5**
Optics & Life Science	million euros	80.7	73.7	9.5
Mobility	million euros	108.3	92.7	16.8
Defense & Civil Systems	million euros	217.8	209.7	3.9
Other [1]	million euros	−1.6	−2.6	38.6
Employees		**3,539**	**3,512**	**0.8**
Optics & Life Science		1,123	1,144	−1.8
Mobility		1,229	1,207	1.8
Defense & Civil Systems		881	881	0.0
Other [1]		306	280	9.3

[1] Including consolidation
[2] Including discontinued operations