IFRS CONSOLIDATED FINANCIAL STATEMENTS OF APOLLO 5 GMBH

for the period 1 January to 31 December 2018

For computational reasons, the tables may contain rounding differences of one unit (KEUR, %, etc.).

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

KEUR	Note	Jan. 1 - Dec. 31, 2018	Jan. 1 - Dec. 31, 2017
Revenues	5.1	721.940	733.244
Changes in inventories of finished goods and work in progress		-8.589	4.222
Other operating income	5.2	45.439	14.286
Cost of material and services purchased	5.3	-292.541	-311.636
Employee benefit expenses	5.4	-250.181	-254.849
Impairment loss/gain	5.5	692	-1.747
Other operating expenses	5.6	-101.101	-107.823
Earnings before interest, tax, depreciation and amortisation (EBITDA)		**115.659**	**75.696**
Depreciation and amortisation expense	6.1, 6.2	-76.247	-75.421
Earnings before interest and taxes (EBIT)		**39.413**	**275**
Financial income	5.7	15.034	17.160
Financial expenses	5.8	-81.942	-82.069
Earnings before income taxes (EBT)		**-27.495**	**-64.633**
Income taxes	5.9	5.996	-3.408
NET LOSS OF THE YEAR		**-21.499**	**-68.041**
Other comprehensive income			
Items that will not be reclassified to profit or loss			
Remeasurements, net of tax	6.11	1.097	2.324
		1.097	2.324
Items that may be subsequently reclassified to profit or loss			
Currency translation differences	6.10	2.275	-2.189
		2.275	-2.189
Other comprehensive income, net of tax		**3.372**	**135**
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD		**-18.127**	**-67.906**

CONSOLIDATED BALANCE SHEET

ASSETS

KEUR	Note	Dec. 31, 2018	Dec. 31, 2017
Intangible Assets	6.1	371.899	419.484
Property, plant and equipment	6.2	262.787	261.631
Other non-current financial assets	6.3	1.612	818
Other non-current assets	6.4	3.299	3.461
Deferred tax assets	5.9	30.154	27.951
Non-current assets		**669.750**	**713.345**
Inventories	6.5	56.294	110.820
Trade receivables	6.6	42.253	38.099
Contract assets	5.1	40.274	-
Income tax claims	5.9	191	10.345
Other current financial assets	6.7	9.137	15.299
Other current assets	6.8	19.947	14.932
Cash and cash equivalents	6.9	49.571	33.268
Current assets		**217.667**	**222.762**
Total assets		**887.417**	**936.107**

EQUITY & LIABILITIES

KEUR	Note	Dec. 31, 2018	Dec. 31, 2017
Share capital	6.10	25	25
Capital reserves	6.10	129.410	122.910
Loss carried forward	6.10	-483.713	-462.214
Other components of equity	6.10	-3.497	-13.704
Equity		**-357.775**	**-352.983**
Provision for pensions and other employee benefits	6.11	56.622	58.486
Other non-current provisions	6.12	12.927	9.516
Non-current financial liabilities	6.13	963.039	937.449
Other non-current liabilities	6.13	10.421	7.625
Deferred tax liabilities	5.9	60.537	67.965
Non-current liabilities		**1.103.545**	**1.081.042**
Trade payables		53.746	72.669
Income tax liabilities	5.9	14.601	16.550
Current provisions	6.12	9.324	17.513
Current financial liabilities	6.13	34.748	63.886
Other current liabilities	6.14	29.228	37.430
Current liabilities		**141.647**	**208.048**
Total equity and liabilities		**887.417**	**936.107**

CONSOLIDATED CASH FLOW STATEMENT

KEUR	Note	2018	2017
Net loss of the year		-21.499	-68.041
Depreciation and amortisation / reversals	6.1, 6.2	76.247	75.421
Income tax expenses / income	5.9	-5.996	3.408
Financial result	5.7, 5.8	66.908	64.909
Changes in trade accounts receivable	6.6	-6.239	2.144
changes in contract assets		-40.274	-
Change in inventories	6.5	48.057	-9.930
Changes in trade accounts payables		-16.407	5.873
Bad debt write offs / reversals of bad debt write offs	6.6	-	1.256
Changes in other assets / liabilities	6.7, 6.8, 6.11, 6.12, 6.14	14.317	-7.108
Other non cash effective income/expenses	5.7, 5.8, 11.	-2.920	144
Income from sale of subsideries	3.1	-27.038	
Income/expense from sale of property, plant and equipment and intangible assets	5.2, 5.5	1.661	592
Taxes paid/received		-5.073	-2.972
Cashflow from operating activities		**81.743**	**65.695**
Purchase of intangible assets	6.1	-1.523	-6.456
Purchase of property, plant and equipment	6.2	-34.214	-42.250
Proceeds from the sale of property, plant and equipment and intangible assets	5.2, 5.5	4.418	2.749
Payments from the issuance of loans		-	-
Interest and dividend received	5.7	3.936	-
Sale of consolidated companies (net of cash and cash equivalent acquired)	3.1	36.463	-
Cash flow from investing activities		**9.079**	**-45.957**
Proceeds from borrowings	6.13	6.980	16.000
Proceeds from capital increases	6.10	6.500	16.000
Repayments of borrowings	6.13	-44.178	-9.597
Interest paid		-44.616	-41.574
Cash flow from financing activities		**-75.313**	**-19.171**
		-	
Change in cash and cash equivalents		**15.509**	**567**
Cash and cash equivalents at the beginning of the period		**33.268**	**33.869**
Change in cash and cash equivalents	6.9	15.509	567
Effect of foreign exchange rates on cash and cash equivalents		794	-1.168
Cash and cash equivalents at the end of the period		**49.571**	**33.268**

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

KEUR	Note	Share capital	Capital reserves	Accumula-ted loss	Currency translation differences	Remeasurements	Total
Balance at January 1, 2017		**25**	**106.766**	**-394.166**	**-1.285**	**-12.553**	**-301.213**
Loss carried forward	6.10						
Net loss	6.10			-68.041			-68.041
Other comprehensive income	6.10	-	-		-2.190	2.324	134
Total comprehensive income for the period	6.10	***-***	***-***	***-68.041***	***-2.190***	***2.324***	***-67.907***
Capital contribution shareholders	6.10		16.000				16.000
Transaction with shareholders	6.10		144				144
Other changes	6.10			-7	-1		-8
Balance at Dec. 31, 2017		**25**	**122.910**	**-462.214**	**-3.474**	**-10.229**	**-352.983**
Adjustment on initial application of IFRS 9, net of tax	6.10					-2.128	-2.128
Adjustment on initial application of IFRS 15, net of tax	6.10					8.962	8.962
Adjusted balance at Jan. 01, 2018		**25**	**122.910**	**-462.214**	**-3.474**	**-3.395**	**-346.148**
Loss carried forward	6.10						-
Net loss	6.10			-21.499			-21.499
Other comprehensive income	6.10				2.275	1.097	3.372
Total comprehensive income for the period	6.10	***-***	***-***	***-21.499***	***2.275***	***1.097***	***-18.127***
Capital contribution shareholders	6.10		6.500				6.500
Balance as of Dec. 31, 2018		**25**	**129.410**	**-483.713**	**-1.199**	**-2.298**	**-357.775**

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Information about the company

The company's consolidated financial statements as of December 31, 2018 include Apollo 5 GmbH and its subsidiaries (collectively referred to as "AENOVA" or the "Group"). Apollo 5 GmbH ("the Company") is a limited liability company under German law with its registered office at Berger Strasse 8 - 10, 82319 Starnberg, Germany. Apollo 5 GmbH is registered in the Commercial Register of the Munich Local Court under number B HRB 199543.

The parent company of Apollo 5 GmbH is Apollo 8 GmbH, Starnberg, Germany. Apollo 8 GmbH is registered in the Commercial Register of the Munich Local Court under number B HRB 200075. The main shareholder of Apollo 8 GmbH is Apollo 11 S.à r.l., Luxembourg. The ultimate controlling undertaking is the fund BC European Capital IX, Guernsey, United Kingdom.

The AENOVA Group is one of the world's largest pharmaceutical contract manufacturers. In Europe, the company is the market leader when it comes to development, manufacture and marketing of pharmaceuticals and dietary supplements. AENOVA operates a total of 16 production sites in six countries. The Group is represented in eight European countries, Asia and the USA.

2. Basis of preparation of the consolidated financial statements

The consolidated financial statements have been prepared in accordance with Section 315e HGB and with all International Financial Reporting Standards (IFRS) as adopted by the European Union (EU) at the date the financial statements were prepared and in accordance with the publications of the International Financial Reporting Interpretations Committee's (IFRIC).

The consolidated financial statements were generally prepared using the historical cost principle. This excludes financial assets and liabilities (including derivative financial instruments) and plan assets that are measured at fair value through profit or loss.

The consolidated statement of comprehensive income is prepared according to the total cost procedure.

The consolidated financial statements are prepared in Euros, which is the Group's functional currency. Unless otherwise indicated, all values are rounded up or down to the nearest thousand Euros (KEUR) in accordance with commercial rounding.

These consolidated financial statements were approved for publication by management on April 12, 2019.

3. Accounting and valuation methods

The specific accounting and valuation methods were applied consistently by the companies included in the consolidated financial statements for all periods and reporting dates presented in these consolidated financial statements, as described below.

3.1.1. Consolidation principles

The consolidated financial statements include all subsidiaries directly or indirectly controlled by Apollo 5 GmbH. The Company obtains control if it can exercise control over the investment company, if it is exposed to fluctuating returns from its investment and if it can influence the amount of the returns due to its power of disposal.

If the Company does not hold a majority of voting rights, it nevertheless controls the associated company if its voting rights give it the practical possibility to unilaterally determine the relevant activities of the associated company. In determining whether its voting rights are sufficient for the determining power, the Company takes into account all facts and circumstances, including the extent of its own voting rights in relation to the extent of the voting rights of other holders of voting rights, potential own and third-party voting rights, rights under contractual agreements, and other facts and circumstances indicating that the Company has or does not have the current ability to determine the relevant activities at the times at which decisions must be taken, taking into account the voting behaviour at previous general meetings of shareholders.

Intercompany profits and losses, expenses and income as well as intercompany receivables and liabilities are eliminated in the course of preparing the consolidated financial statements.

In accordance with IFRS 3, business combinations are accounted for using the purchase method at the date on which the combination becomes economically effective. Under the purchase method, a buyer measures the identifiable assets and liabilities acquired at their fair value on the acquisition date. The difference between the purchase price and the identifiable net assets acquired is capitalized as goodwill. If a company is acquired at a price below its market value, profits are recognised immediately. Transaction costs relating to business combinations are expensed as incurred.

3.1.2. Scope of consolidation

The consolidated financial statements as of December 31, 2018 include Apollo 5 GmbH and a total of 32 subsidiaries (2017: 34 subsidiaries).

As of December 31, 2018, the following companies were fully consolidated in the consolidated financial statements:

AENOVA Group companies	Shareholding in % Dec. 31, 2018	Shareholding in % Dec. 31, 2017
Apollo 5 GmbH Starnberg, Germany	Parent Company	Parent Company
Aenova Holding GmbH Starnberg, Germany	100%	100%
Dragenopharm Apotheker Püschl GmbH Tittmoning, Germany	100%	100%
Swiss Caps Holding (Luxembourg) S.à.r.l. Luxembourg, Luxembourg	100%	100%
Swiss Caps Holding AG Kirchberg, Switzerland	100%	100%
Swiss Caps Rechte und Lizenzen AG Kirchberg, Switzerland	100%	100%
Swiss Caps AG Kirchberg, Switzerland	100%	100%
Swiss Caps (UK) Ltd. Doncaster, United Kingdom	100%	100%
Aenova France SAS Paris, France	100%	100%
Swiss Caps GmbH Bad Aibling, Germany	100%	100%
Swiss Caps Holdings Inc. Miami, USA	100%	100%
Swiss Caps USA Inc. Miami, USA	100%	100%
Swiss Caps Romania S.R.L. Cornu, Romania	100%	100%
Temmler Pharma GmbH Marburg, Deutschland	100%	100%
Aenova Purchasing International GmbH Starnberg, Deutschland	100%	100%
Aenova IP GmbH Marburg, Deutschland	100%	100%
Temmler Ireland Ltd. Killorglin, Ireland	100%	100%
Temmler Property Ireland Ltd. Killorglin, Ireland	100%	100%
Temmler Italia S.r.l. Carugate, Italy	100%	100%
C.P.M ContractPharma GmbH & Co. KG Arzneimittelherstellung und Verpackung, Feldkirchen, Germany	100%	100%
C.P.M. ContractPharma GmbH (formerly CPM Verwaltungsgesellschaft mbH) Feldkirchen, Germany	100%	100%
SwissCo Services AG Sisseln, Switzerland	100%	100%
Euro Vital Pharma GmbH (Sale in 2018) Hamburg, Germany	0%	100%
Institut für industrielle Pharmazie Forschungs- und Entwicklungsges. mbH Aschaffenburg, Deutschland (in 2018 merger to AIP)	0%	100%
H & E Pharma SA Kirchberg, Switzerland	100%	100%
Haupt Pharma Amareg GmbH Regensburg, Germany	100%	100%
Haupt Pharma Berlin GmbH Berlin, Germany	100%	100%
Aenova Sales International GmbH Starnberg, Deutschland	100%	100%
Haupt Pharma Münster GmbH Münster Germany	100%	100%
Haupt Pharma Wülfing GmbH Gronau, Germany	89,8%	89,8%
Haupt Pharma Wolfratshausen GmbH Wolfratshausen, Germany	100%	100%
CleanLog GmbH Gronau, Germany	100%	100%
Haupt Pharma Latina S.r.l. Latina, Italy	100%	100%
Contract Packaging Resources Inc. Greensboro, USA	100%	100%
Aenova Asia-Pacific Ltd. Singapore	100%	100%

The minority interests in Haupt Pharma Wülfing GmbH are not disclosed for reasons of materiality. The liquidation of Temmler & Biovail GmbH, which was not included in the consolidated financial statements, was completed in 2018.

Aenova Holding GmbH, Aenova Sales International GmbH, Aenova IP GmbH, Dragenopharm Apotheker Püschl GmbH, Swiss Caps GmbH, Temmler Pharma GmbH, Haupt Pharma Amareg GmbH, Haupt Pharma Berlin GmbH, Haupt Pharma Münster GmbH, Haupt Pharma Wolfratshausen GmbH, Haupt Pharma Wülfing GmbH and C.P.M. ContractPharma GmbH & Co. KG made use of the exemption provisions of section 264 (3) and section 264b of the German Commercial Code (HGB) for the annual financial statements as at 31 December 2018.

For the purposes of section 357 of the Irish Companies Act 2014, Aenova Holding GmbH has guaranteed the commitments and liabilities of Temmler Ireland Limited for the financial year ended 31 December 2018.

The Institut für industrielle Pharmazie Forschungs- und Entwicklungsgesellschaft mbH was merged with Aenova IP GmbH by merger agreement dated 26 June 2018 and entry in the commercial register on 16 August 2018.

Euro Vital Pharma GmbH was sold to Mellifera Sechsundzwanzigste Beteiligungsgesellschaft mbH under a sale agreement effective 1 October 2018. Closing was on 8 November 2018. The company was deconsolidated in November. The Group recognised a capital gain of KEUR 27,038 under other operating income.

3.2. New accounting standards

3.2.1. Accounting standards applied for the first time

The following standards and interpretations issued by the IASB and already approved by the EU were required to be applied for the first time in fiscal year 2018:

Standard	Title	First time adoption
IFRS 15	Revenue from Contracts with Customers	01.01.2018
IFRS 9	Financial Instruments	01.01.2018
Amendments to IFRS 2	Classification and measurement of share based payment transactions	01.01.2018
Amendments to IFRS 4	Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts	01.01.2018
Amendments to IFRS 15	Clarification to IFRS 15	01.01.2018
Amendments to IAS 40	Transfers of investment property	01.01.2018
IFRIC 22	Foreign Currency Transactions and Advance Consideration	01.01.2018
Improvements to IFRS 2014 - 2016	Changes to IFRS 1 and IAS 28	01.01.2018

The main effects of the application of the new, amended and revised standards and interpretations in the 2018 financial year are described in section 3.5.

3.2.2. New accounting standards issued but not yet applied

The following accounting pronouncements issued by the IASB and already approved by the EU are not yet mandatory and have not yet been applied prematurely by AENOVA. Unless otherwise indicated, the impact on the Company's consolidated financial statements is currently under review:

Standard	Title	First time adoption
IFRS 16	Leases	01.01.2019
IFRIC 23	Uncertainty over Income Tax Treatments	01.01.2019
Amendments to IFRS 9	Prepayment features with negative compensation and modifications of financial liabilities	01.01.2019
Amendments to IAS 28	Long-term interests in associates and joint ventures	01.01.2019

IFRS 16 - Leases

The AENOVA Group is obliged to apply IFRS 16 Leases as of January 1, 2019. The AENOVA Group assesses the estimated impact of the adoption of IFRS 16 on its consolidated financial statements as presented below. The actual effects of the adoption of this standard as of January 1, 2019 may differ because the new accounting policies may be subject to change until the first consolidated financial statements are issued after the date of adoption.

IFRS 16 introduces a uniform accounting model under which leases are recognised in the lessee's balance sheet. A lessee recognises a right of use asset, which represents its right to use the underlying asset, and a liability from the lease, which represents its obligation to make lease payments. There are simplification rules for short-term leases and low-value leases. Lessor accounting is comparable to the current standard - lessors continue to classify leases as finance or operating leases.

IFRS 16 replaces the existing rules on leases, i.e. IAS 17 Leases and IFRIC 4 Determining whether an Arrangement contains a Lease.

Leases in which AENOVA is the lessee

The AENOVA Group will recognize new assets and liabilities for its operating leases. The nature of the expenses in connection with these leases will change as, instead of lease expenses, depreciation for rights of use assets and interest expenses from lease liabilities will arise in the future.

Provisions for operating leases that are estimated to be onerous will not have to be recognized in the future. Instead, the lease payments owed are included in the lease liability.

No material effects on the finance leases of the AENOVA Group are expected.

Leases in which the Group is the lessor

The AENOVA Group will reassess the classification of sub-leases for which it is the lessor. Based on currently available information, AENOVA expects subleases to be reclassified as finance leases.

No significant changes are expected on other leases.

Transition

The AENOVA Group intends to apply IFRS 16 for the first time as of January 1, 2019 using the modified retrospective method. For this reason, the cumulative effect of applying IFRS 16 is recognised as an adjustment to the opening balance sheet values in retained earnings as at January 1, 2019.

IFRIC 23 - Uncertainties regarding the treatment of income taxes

In practice, different methods are used to account for current and deferred tax items for which there are uncertainties with regard to the income tax treatment. The interpretation IFRIC 23 is intended to counteract this.

IFRIC 23 does not apply to taxes or levies that do not fall within the scope of IAS 12 and does not contain rules on interest and late payment penalties in connection with uncertain tax positions.

AENOVA currently assumes that there will be no material effects on the consolidated financial statements.

Amendments to IFRS 9 - Instruments with negative prepayment penalties

In accordance with IFRS 9, a debt instrument may be measured at amortised cost or at fair value through other comprehensive income if the contractual cash flows are *exclusively payments of principal and interest on the outstanding principal amount* (SPPI criterion) and the instrument is held within the business model appropriate for this classification. The amendments to IFRS 9 clarify that a financial asset meets the SPPI criterion regardless of what event or circumstance causes the premature termination of the contract and which party pays or receives appropriate remuneration for the premature termination of the contract. The amendments mean that early termination may result from a contract term or an event outside the control of the parties to the contract, such as a change in the law or regulation that results in early termination of the contract.

AENOVA does not expect any material effects on the consolidated financial statements.

Amendments to IAS 28 - Investments in Associates and Joint Ventures

The amendments clarify that an entity applies IFRS 9 to long-term investments in an associate or joint venture where the equity method is not applied but which are substantially part of the net investment in the associate or joint venture (long-term investments). This clarification is relevant because it implies that the expected credit risk model in IFRS 9 applies to such long-term portions.

The IASB also clarified that when an entity applies IFRS 9, it does not recognise losses of the associate or joint ventures or impairments of net investments that are recognised as adjustments to the net investment in the associate or joint venture and result from the application of IAS 28 Investments in Associates and Joint Ventures.

These changes will have no material impact on the consolidated financial statements.

3.3. Foreign currency translation

3.3.1. Foreign currency transactions

Transactions denominated in currencies other than the functional currency are translated at the exchange rate prevailing on the date of the transaction.

Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are translated into the functional currency at the closing rate. Foreign exchange losses and gains on monetary assets or liabilities arise from the difference between amortised cost in the functional currency at the beginning of the period, adjusted for the effects of applying the effective interest method and payments during the period, and amortised cost in foreign currency at the end of the period, translated at the closing rate at the end of the period.

Non-monetary assets and liabilities denominated in foreign currencies and measured at fair value are translated at the closing rate at which the fair value was determined. Exchange differences arising on translation are recognised in profit or loss, except for differences on cash flow hedges which are recognised directly in equity.

3.3.2. Group companies

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on business combinations, are translated into Euros at the balance sheet date. Income and expenses from foreign operations are translated into Euros at the respective transaction date.

Assets and liabilities of Group companies whose functional currency is not the Euro are translated into Euro using the exchange rate at the balance sheet date. The income statements of the Group's foreign currency companies are translated at the average exchange rate for the reporting period. All resulting foreign currency differences are recorded in a separate item within other components of equity.

3.4. Discretionary decisions and estimates

3.4.1. General information

The preparation of consolidated financial statements in conformity with IFRS requires management to make judgements, assumptions and estimates that affect the reported amounts of assets and liabilities, income and expenses and contingent liabilities. Actual results may differ from these estimates. The assumptions underlying the estimates are reviewed regularly. Changes in estimates are recognised in the period in which the change in assumptions occurs and in periods affected in the future.

The measurement decisions, assumptions and estimates mainly relate to the accounting treatment of business combinations, the assessment of the recoverability of intangible assets (in particular goodwill), the group-wide determination of useful lives of tangible assets, taxes, the recognition of deferred tax assets, the measurement and recognition of pension and other provisions and the assessment of valuation allowances on inventories and trade receivables. Estimates and assumptions are based on the level of knowledge at the respective balance sheet date.

In business combinations, estimates are made in measuring the fair values of the acquired assets, liabilities and contingent liabilities. Fair values are generally determined on the basis of forecasts of future cash flows.

3.4.2. Impairment of non-financial assets

The Group tests all non-financial assets for impairment at each balance sheet date. Goodwill is tested for impairment annually and moreover at any time if there are indications of impairment.

Goodwill must be allocated to the respective cash-generating units (CGUs) or groups of CGUs for which a positive synergy effect is expected. This allocation is made at the lowest level at which goodwill is monitored for internal management purposes. The definition of CGUs or groups of units within the Group to which goodwill is allocated and the allocation of goodwill acquired in a business combination to cash-generating units or groups of units is the subject of assumptions and estimates made by management.

Since the value in use of the tested CGUs or groups of CGUs exceeds the carrying amount of these CGUs or groups of CGUs including goodwill, no impairment of goodwill was recognized.

For further details, please refer to section6.1Intangible assets.

3.4.3. Economic useful lives of property, plant and equipment and intangible assets

The useful lives of non-current assets are based on management estimates. The Group reviews the estimated useful lives of property, plant and equipment and intangible assets at the end of each financial year.

3.4.4. Transaction costs

Transaction costs arising from the Group's refinancing are recognised as an expense, except for costs directly attributable to the borrowing. These costs are released to income in accordance with the effective interest method on a pro rata basis over the term of the loans.

3.4.5. Taxes on income and earnings

The Company and its subsidiaries are subject to regular tax audits. Tax calculations and tax-relevant processes are coordinated with the locally responsible tax authorities. As the result of these tax audits is uncertain, management estimates the amount of provisions required for both current and deferred income taxes, including external consultants and the status of discussions with the respective tax authorities.

3.4.6. Deferred tax assets

Deferred tax assets are recognized to the extent that it is probable that taxable profit will be available against which the deductible temporary difference can be utilized. In determining deferred tax assets, estimates must be made of future taxable income and the timing at which the deferred tax assets can be realized. As future business developments are uncertain and partly beyond the control of management, the assumptions to be made in connection with the calculation of deferred tax assets are subject to considerable uncertainty.

Deferred tax assets at AENOVA exist, among other things, on loss carryforwards. They are recognised for all existing tax loss carryforwards to the extent that it is probable that future taxable income or deferred tax liabilities will be available against which the loss carryforwards can actually be utilised. The recoverability of deferred tax assets is assessed at each balance sheet date on the basis of planned taxable income in future financial years. For further details, see paragraph5.9Taxes on income and earnings.

3.4.7. Pensions and other employee benefits

The costs of defined benefit pension plans are based on actuarial valuations. Actuarial valuations include estimates and assumptions about discount rates, future salary increases, mortality rates and future pension increases. Due to the long-term nature of these plans, these estimates and assumptions are subject to certain uncertainties.

For further details, see paragraph 6.11Provisions for pensions and similar obligations.

3.4.8. Other provisions and accrued liabilities

Other provisions are recognised when an economic, legal or environmental obligation is likely to result in an outflow of resources embodying economic benefits in the future, in the amount of which it can be reliably estimated. Estimating future costs is subject to various uncertainties, including, but not limited to, legal uncertainties with respect to applicable laws and regulations and uncertainties with respect to actual conditions in different countries and at different locations. Costs are estimated on the basis of past experience in comparable cases, expert opinions, current costs and new developments that have an impact on costs. Any change in these estimates could have an impact on the future results of the Group.

3.4.9. Fair value of financial assets and liabilities

Trade receivables, other current financial assets, cash and cash equivalents, trade payables, current bank liabilities, current lease liabilities and other current liabilities generally have remaining terms of less than one year. The carrying amounts less value adjustments approximate their fair values. The fair values of listed securities correspond to the nominal values multiplied by the price quotation on the reporting date.

The fair value of non-current liabilities to banks and non-current liabilities to related parties is determined on the basis of discounted future interest and principal payments. The fair value of long-term lease liabilities corresponds to the present value of the minimum lease payments. The fair value of derivatives is calculated using recognised financial mathematical models.

The Group manages a number of equity-settled employee share-based payment plans in which the Company receives services from employees and issues equity instruments as consideration. The services provided by employees for which options were granted in exchange are recognized as expenses, the adjustment of equity instruments is recognized in equity. The fair value of share-based employee compensation packages whose compensation is settled by equity instruments is measured using a mathematical model based on a Monte Carlo simulation. The volatility underlying the model was derived from comparable listed companies ("peer group"). The risk-free interest rate corresponds to a maturity-equivalent German government bond.

3.5. Changes in significant accounting policies

As of January 1, 2018, the Group applied IFRS 15 (see section 3.5.1) and IFRS 9 (see section 3.5.2) for the first time. As of January 1, 2018, a number of other new standards came into force; however, these have no material effect on the consolidated financial statements.

Due to the transition methods chosen by the Group for the application of these standards, the prior-year figures in these financial statements have not been restated.

The effects of the first-time application of these standards are mainly attributable to the following reasons:

- earlier revenue recognition from contracts for the contract manufacture of pharmaceuticals
- earlier revenue recognition from the rendering of services
- increase in impairment losses on financial assets

3.5.1. IFRS 15 Revenue from contracts with customers

IFRS 15 establishes a comprehensive framework for determining whether, to what extent and when revenue is recognised. It replaces existing guidelines for the recognition of revenue, including IAS 18 *Revenue*, IAS 11 *Construction Contracts* and IFRIC 13 *Customer Loyalty Programmes*.

Under IFRS 15, revenue is recognised when a customer obtains control of goods or services. The determination of whether control is transferred at a point in time or over time requires discretionary decisions.

When transitioning to IFRS 15, the Group applied the modified retrospective method, according to which the cumulative adjustment amounts are recognized as of January 1, 2018. As a result, the comparative information for 2017 has not been restated, i.e. it has been presented as before in accordance with IAS 18, IAS 11 and the corresponding interpretations. In addition, the disclosure requirements under IFRS 15 were generally not applied to comparative information.

The following table shows the effects of the transition to IFRS 15 on the other components of equity as of January 1, 2018:

KEUR	**Effects of the application of IFRS 15 on opening balance sheet values**
December 31, 2017 - Other components of equity	**-13.704**
Contract assets (incl. changes in inventories)	12.036
Deferred taxes	-3.074
January 1, 2018 - Other components of equity	**-4.742**

The table below summarises the effects of the application of IFRS 15 on the relevant items of the consolidated balance sheet as at December 31, 2018 and the consolidated statement of comprehensive income for the 2018 financial year. There are no material effects on the consolidated cash flow statement for the 2018 financial year.

a) **Effects on the consolidated balance sheet**

KEUR	Dec.31, 2018	Adjustments	Balances w/o adoption of IFRS 15
Intangible Assets	371.899	-	371.899
Property, plant and equipment	262.787	-	262.787
Other non-current financial assets	1.612	-	1.612
Other non-current assets	3.299	-	3.299
Deferred tax assets	30.154	-	30.154
Non-current assets	**669.750**	**-**	**669.750**
Inventories	56.294	30.987	87.280
Trade receivables	42.253	-	42.253
Contract assets	40.274	-40.274	-0
Income tax claims	191	-	191
Other current financial assets	9.137	-	9.137
Other current assets	19.947	-	19.947
Cash and cash equivalents	49.571	-	49.571
Current assets	**217.667**	**-9.288**	**208.379**
Total assets	**887.417**	**-9.288**	**878.129**

KEUR	Dec.31, 2018	Adjustments	Balances w/o adoption of IFRS 15
Share capital	25	-	25
Capital reserve	129.410	-	129.410
Loss carried forward	-483.713	-7.005	-490.718
Other components of equity	-3.497	-	-3.497
Equity	**-357.775**	**-7.005**	**-364.780**
Provision for pension and other employee benefits	56.622	-	56.622
Other non-current provisions	12.927	-	12.927
Non-current financial liabilities	963.039	-7.660	955.379
Other non-current liabilities	10.421	7.660	18.081
Deferred tax liabilities	60.537	-2.282	58.254
Non-current liabilities	**1.103.545**	**-2.282**	**1.101.263**
Trade payables	53.746	-447	53.299
Income tax liabilities	14.601	-	14.601
Current provisions	9.324	-	9.324
Current financial liabilities	34.748	-	34.748
Other current liabilities	29.228	447	29.675
Current liabilties	**141.647**	**-**	**141.647**
Total liabilities	**1.245.192**	**-2.282**	**1.242.910**
Total equity and liabilities	**887.417**	**-9.288**	**878.129**

b) Effects on the statement of comprehensive income

KEUR	Dec. 31, 2018	Adjustments	Balances w/o adoption of IFRS 15
Revenues	721.940	8.704	730.644
Changes in inventories of finished goods and work in progress	-8.589	-5.956	-14.544
Other operating income	45.439	-	45.439
Cost of material and services purchased	-292.541	-	-292.541
Employee benefit expenses	-250.181	-	-250.181
Impairment loss/gain on trade receivables and contract assets	692	-	692
Other operating expenses	-101.101	-	-101.101
Earnings before interest, tax, depreciation and amortisation (EBITDA)	**115.659**	**2.748**	**118.408**
Depreciation and amortisation	-76.247	-	-76.247
Earnings before interest and taxes (EBIT)	**39.413**	**2.748**	**42.161**
Financial income	15.034	-	15.034
Financal expenses	-81.942	-	-81.942
Earnings before income taxes (EBT)	**-27.495**	**2.748**	**-24.747**
Income taxes	5.996	-792	5.204
Net LOSS OF THE YEAR	**-21.499**	**1.956**	**-19.543**
Other comprehensive income			
Items that will not be reclassified to profit or loss			
Remeasurements, net of tax	1.097	-	1.097
	1.097	**-**	**1.097**
Items that may be subsequently reclassified to profit and loss			-
Currency translation differences	2.275	-	2.275
	2.275	-	2.275
Other comprehensive income, net of tax	**3.372**	**-**	**3.372**
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD	**-18.127**	**1.956**	**-16.171**

c) Contract manufacturing of pharmaceuticals

In accordance with IAS 18, revenue from the contract manufacture of pharmaceuticals was generally recognized when the goods were transferred to the customer. This was regarded as the point in time at which the customer transferred the drugs and the associated opportunities and risks associated with the transfer of ownership. Revenue was recognised at that time if the revenue and costs could be measured reliably, it was probable that the consideration would be received and there was no continuing right of disposal over the drugs.

In accordance with IFRS 15, revenue from the contract manufacture of drugs is recognized over a period of time, i.e. before the drugs are collected by the customer if the customer is obligated to accept the products before the goods are collected and there is no possibility of selling the goods to another customer.

The effect of these changes on other items in the consolidated financial statements is the introduction of the new item "contract assets" and a decrease in inventories.

d) Provision of services

The picture for the provision of services is similar to that for the contract manufacturing of medicinal products. In accordance with IAS 18, revenue was only recognized when the risk had passed to the customer and the revenue and related costs could be measured reliably. In accordance with IFRS 15, revenue is recognized over a specified period if the customer is required to purchase the costs incurred plus a reasonable profit margin before receiving the service and there is no possibility of reselling the service to another customer. As a result, the performance obligations are already fulfilled over a certain period and therefore revenue is recognised earlier than under IAS 18. IAS 18 provided for revenue recognition for the provision of services on the basis of contractually agreed service stages (milestones), which generally led to revenue being recognised at a later date.

IFRS 15 did not have a material impact on the Group's accounting policies for other sources of revenue (see Note 5.1).

3.5.2. IFRS 9 Financial Instruments

IFRS 9 sets out the requirements for the recognition and measurement of financial assets, financial liabilities and some contracts for the purchase or sale of non-financial contracts. This Standard supersedes IAS 39 *Financial Instruments: Approach and evaluation*.

As a result of the introduction of IFRS 9, the Group has implemented consequential amendments to IAS 1 *Presentation of Financial Statements*, which require an impairment loss on financial assets to be presented in a separate line item in the statement of comprehensive income.

In addition, the AENOVA Group has applied IFRS 7 *Financial instruments: disclosures* in the notes to the financial statements for the 2018 financial year. However, these were generally not applied to the comparative information.

The following table shows the effects of the transition to IFRS 9 on the opening balance sheet values of the other equity components after tax:

KEUR	Effects of the application of IFRS 9 on opening balance sheet values
December 31, 2017 - Other components of equity	-13.704
Opening balance sheet value for value adjustments in accordance with IFRS 9	-2.844
Deferred taxes	716
January 1, 2018 - Other components of equity	**-15.832**

a) Classification and measurement of financial assets and financial liabilities

IFRS 9 contains three basic categories for the classification of financial assets:

- measured at amortized cost (AC),
- measured at fair value through other comprehensive income (FVOCI), and
- measured at fair value through profit or loss (FVTPL).

Financial assets are classified in accordance with IFRS 9 on the basis of the AENOVA Group's business model for managing financial assets and the characteristics of contractual cash flows. IFRS 9 thus eliminates the previous categories of IAS 39:

- to maturity,
- Loans and receivables and
- available for sale.

IFRS 9 largely retains the existing requirements of IAS 39 for the classification of financial liabilities.

The first-time application of IFRS 9 has no impact on the Group's accounting policies with respect to financial liabilities and derivative financial instruments.

The following table and the accompanying information explain the original measurement categories in accordance with IAS 39 and the new measurement categories in accordance with IFRS 9 as of January 1, 2018 for each class of financial assets and financial liabilities that the Group forms.

The effects of the first-time application of IFRS 9 on the carrying amounts of financial assets as of January 1, 2018 result exclusively from the new regulations on the recognition of impairment losses.

KEUR	Old category in accordance with IAS 39	New category in accordance with IFRS 9	Old carrying amount according to IAS 39	New carrying amount according to IFRS 9
Other non-current financial assets	Loans and receivables (L&R)	Amortised cost	818	818
Trade receivables	Loans and receivables (L&R)	Amortised cost	38.099	6.759
	Loans and receivables (L&R)	FVOCI		29.304
Factoring Receivables	Loans and receivables (L&R)	FVOCI	15.269	15.269
Other current financial assets	Loans and receivables (L&R)	Amortised cost	30	30
Cash and cash equivalents	Loans and receivables (L&R)	Amortised cost	33.268	33.268
Total financial assets			**87.484**	**85.448**

KEUR	Old category in accordance with IAS 39	New category in accordance with IFRS 9	Old carrying amount according to IAS 39	New carrying amount according to IFRS 9
Non-current bank-loans	Other financial liabilities	Other financial liabilities	635.717	635.717
Non-current liabilities to related parties	Other financial liabilities	Other financial liabilities	209.172	209.172
Non-current accrued interests to related parties	Other financial liabilities	Other financial liabilities	61.201	61.201
Non-current leasing liabilities	Other financial liabilities	Other financial liabilities	31.359	31.359
Trade payables	Other financial liabilities	Other financial liabilities	72.669	72.669
Current liabilities to banks	Other financial liabilities	Other financial liabilities	48.730	48.730
Current leasing liabilities	Other financial liabilities	Other financial liabilities	5.721	5.721
Current accrued liabilities	Other financial liabilities	Other financial liabilities	9.434	9.434
Total financial liabilities			**1.074.004**	**1.074.004**

Trade receivables and other receivables classified as loans and receivables in accordance with IAS 39 are now classified at amortized cost. Trade receivables classified as held for sale are classified as FVOCI. An increase of KEUR 2,036 in the value adjustments of these receivables was recognised in the balance sheet loss as of January 1, 2018 with the transition to IFRS 9.

As of January 1, 2018, additional contract assets in the amount of KEUR 48,978 were recognized as part of the first-time application of IFRS 15, for which an impairment loss of KEUR 808 was recognized. The contract assets are not included in the above table.

The following table reconciles the carrying amounts of financial assets under IAS 39 to the carrying amounts under IFRS 9 at the date of transition to IFRS 9 on January 1, 2018.

KEUR	IAS 39 Carrying amount Dec. 31, 2017	Reclassification	Remeasurement	IFRS 9 Carrying amount Jan. 1, 2018
Financial Assets				
Amortised cost/FVOCI				
Other non-current financial assets				
Opening balance:				
Loans and receivables	818	-818		0
Reclassification to:				
Amortised cost	0	818	0	818
Other non-current loans and receivables				
Opening balance:				
Loans and receivables	30	-30	0	0
Reclassification to:				
Amortised cost	0	30	0	30
Trade receivables and other financial assets				
Opening balance:				
Loans and receivables	38.099	-38.099		0
Reclassification to:				
Amortised cost	0	6.926	-167	6.759
FVOCI	0	31.173	-1.869	29.304
Factoring Receivables				
Opening balance:				
Loans and receivables	15.269	-15.269		0
Reclassification to:				
Amortised cost	0	15.269	0	15.269
Cash and cash equivalents				
Opening balance:				
Loans and receivables	33.268	-33.268		0
Reclassification to:				
Amortised cost	0	33.268	0	33.268
Total amortised cost	**87.484**	**-31.173**	**-167**	**56.144**
Total FVOCI	**0**	**31.173**	**-1.869**	**29.304**

b) Impairment of financial assets

IFRS 9 replaces the "incurred losses" model of IAS 39 with an "expected losses" ("ECL") model. The new impairment model applies to financial assets measured at amortised cost, contract assets and debt instruments measured at FVOCI, but not to equity instruments held as financial assets. Under IFRS 9, credit losses are recognized earlier than under IAS 39.

For assets within the scope of the impairment model of IFRS 9, the impairments increase and become more volatile. The AENOVA Group has determined that the additional impairment losses from the application of the impairment provisions of IFRS 9 as of January 1, 2018 are as follows:

KEUR	Effects of the application of IFRS 9 on opening balance sheet values
December 31, 2017 - Determined in accordance with IAS 39	2.476
Additional value adjustment on January 1,2018 on:	
Trade receivables and other financial assets	2.036
Contract Assets due to IFRS 15	808
January 1, 2018 - Impairment acc. IFRS 9	**5.320**

The average payment period for customers is 41 days.

3.6. Revenues

Revenue is measured on the basis of the consideration specified in a contract with a customer. The AENOVA Group recognizes revenue when it transfers control of a good or service to a customer.

In the case of some contracts for the contract manufacture of pharmaceuticals, the customer is obliged to accept the products before collecting the goods, so that revenue is already recognized over a certain period for these contracts. The stage of completion is determined on the basis of the cost-to-cost method. This is an input-based method.

For the provision of services, the progress of services is defined on the basis of defined service stages (milestones). This is therefore an output-oriented method.

The following table provides information on the nature and timing of the settlement of performance obligations under contracts with customers:

Dosage form	**Criteria applied for the timing of the performance obligations**	**Revenue recognition in accordance with IFRS 15 (effective from January 1, 2018)**
Drug products • Solids • Semi-solids & liquids • Softgel capsules	Customers acquire control over the pharmaceutical products when the drugs are shipped from the Group's warehouse. At this time, invoices are issued and sales are realized. In the event of a collection of pharmaceutical products by the customer, the customer does not acquire control over pharmaceutical products until the goods are made available for collection. The following criteria must be met cumulatively: • the product has to be identified as belonging to the customer, • the product must be ready for physical transfer to the customer and • the AENOVA Group may not use the product itself or resell it to another customer.	Revenue for pharmaceutical products is recognized when the goods are shipped from the Group's warehouse. Revenue is recognized when the customer is notified that the goods are ready for collection from the warehouse.
Contract manufacturing of pharmaceutical products • Solids • Semi-solids & liquids • Softgel capsules	In the case of contract manufacturing of medicines and services, the AENOVA Group is of the opinion that the customer controls all the ongoing work during the manufacture of the product or service. Under these contracts, drugs are manufactured or performed according to customer specifications, and if a contract is terminated by the customer, the AENOVA Group is entitled to reimbursement of the costs incurred to date, including a reasonable margin. Invoices shall be issued in accordance with the contractual agreements. Amounts not invoiced are reported as contract assets. The advance payments received in this connection are shown accordingly as contract liabilities.	Revenues and the associated costs are recorded over a specific period of time, that is, before the goods or services are collected or accepted by the customer. The stage of completion is determined on the basis of the cost-to-cost method.

Provision of services	When providing services, the AENOVA Group is of the opinion that the customer controls all ongoing work during the provision of the service. With these contracts, the services are invoiced according to contractually regulated service stages (so-called "milestones") - after acceptance by the customer. Advance payments received from customers in this connection are recognized as contract liabilities.	Revenues and related costs are recognized over a period of time. The stage of completion according to which sales are recognized is determined on the basis of contractually agreed milestones after acceptance by the customer. The performance progress thus represents an output-oriented method.

3.7. Intangible assets

3.7.1. Acquired intangible assets

Acquired intangible assets are carried at cost or, if acquired in a business combination, at fair value. They are depreciated on a straight-line basis over their useful economic lives. Amortization and impairment losses on intangible assets are recognized in the consolidated income statement under depreciation and amortization. Subsequent expenditure is capitalised only if it increases the future economic benefits embodied in the asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brand names, is recognised in profit or loss when incurred.

Intangible assets have the following useful lives:

	Useful life in years
Licences, patents, trademarks and other rights	4 - 30
Development costs	8
Software	4 - 5
Customer contracts and customer relationships	5 - 10
Other intangible assets	3 - 12

3.7.2. Research and development expenses

Expenditure on research activities undertaken with the aim of obtaining new scientific or technical knowledge is recognised as an expense in the period in which it is incurred.

Non-order-related development expenses are capitalized if the following conditions are cumulatively met:

- the technical feasibility of the intangible asset is given
- there is an intention to complete the intangible asset and to use or sell it
- the entity has the ability to use or sell the asset
- the intangible asset demonstrably leads to a future economic benefit;
- sufficient resources are available to complete the intangible asset and to use or sell it
- the expenditure incurred during development can be reliably estimated.

Amortization begins upon completion of the development phase and from the date on which the asset is available for use. The amortization period corresponds to the period in which future economic benefits are expected. An impairment test is performed annually during the development phase.

3.7.3. Goodwill

Goodwill represents the excess of the cost of a business combination over the Group's interest in the fair value of the identifiable assets, liabilities and contingent liabilities acquired. If this amount is negative ("badwill"), it is immediately recognised in profit or loss following a renewed review. Goodwill is not amortised but tested for impairment at least annually. If the value is no longer recoverable, an impairment loss is recognized. Otherwise, the carrying amount will remain unchanged compared with the previous year.

3.8. Property, plant and equipment

Property, plant and equipment are carried at cost less accumulated depreciation and accumulated impairment losses.

Acquisition costs include expenses directly attributable to the purchase of the asset. The cost of self-constructed property, plant and equipment includes both the cost of materials and directly attributable personnel expenses, as well as all other directly attributable costs necessary to start up the item of property, plant and equipment, and the cost of dismantling the item of property, plant and equipment.

If individual components of a fixed asset with a significant acquisition value have different useful lives in relation to the total value of the fixed asset, these components are accounted for and depreciated separately (component approach).

Gains and losses on the sale of property, plant and equipment are determined by comparing the proceeds from the sale with the carrying amount and recording them in other operating income or other operating expenses.

The cost of replacing a component of an asset is included in the carrying amount of the asset if it is probable that the future economic benefits associated with the component will flow to the Group and can be measured reliably. The carrying amount of the replaced component is shown as a disposal.

Property, plant and equipment are depreciated on a straight-line basis over their estimated useful lives. Depreciation, amortisation and impairment losses are recognised in the consolidated income statement under depreciation and amortisation. Assets leased under a finance lease are depreciated over the shorter of the lease term and the economic life, unless it is reasonably certain that the entity will acquire the leased asset at the end of the lease term. Land is not depreciated on a scheduled basis. Depreciation periods and methods as well as residual carrying amounts are reviewed at each balance sheet date. Subsequent expenditure is only capitalised if it is probable that the future economic benefits associated with the expenditure will flow to the Group.

The following table shows the estimated useful lives of property, plant and equipment:

	Useful life in years
Buildings	6 - 50
Plant and machinery	2 - 20
IT equipment	3 - 6
Office equipment and furniture	3 - 20
Other property, plant and equipment	0 - 6

3.9. Borrowing costs

Borrowing costs that are directly attributable to the purchase or construction of a qualifying asset are capitalized as part of cost.

3.10. Impairment of intangible assets and property, plant and equipment

Property, plant and equipment and intangible assets with finite useful lives are depreciated over their useful economic lives and tested for impairment whenever there is an indication that an impairment loss may be required. Goodwill and intangible assets not yet available for use are tested for impairment at least once a year. If the recoverable amount of an asset is lower than its carrying amount, an impairment loss is recognized immediately in profit or loss.

The recoverable amount is defined as the higher of fair value less cost to sell and value in use. To determine the value in use, the expected future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risk associated with the asset. If the carrying amount exceeds the recoverable amount, the difference is recognised as an impairment loss in the income statement. For the impairment test, all assets are compared at the lowest level for which separable cash flows can be determined and allocated. If the cash flow of an asset cannot be determined individually, the impairment test is performed on the basis of the CGU to which the asset is allocated. Goodwill is allocated to CGUs in order to perform an annual impairment test. The allocation to the CGUs or groups of CGUs is based on the operating segments of the business combination from which the goodwill arose and from which they are expected to benefit.

Impairment losses determined upon the measurement of a CGU first result in a reduction of the goodwill allocated to the CGU and only then in a pro rata impairment loss on the other assets of the CGU (group of CGUs).

Goodwill is not revalued after impairment has occurred. With regard to other assets with impairment, an assessment is made at each balance sheet date as to whether there are any indications that the impairment has decreased or no longer exists. An impairment loss is reversed only if there has been a change in the estimates used to determine the asset's recoverable amount. The reversal is limited to the amortized carrying amount that would have resulted without the impairment loss in the past.

3.11. Inventories

Inventories include raw materials and supplies, work in progress, finished goods and merchandise.

Inventories are measured at the lower of cost or net realizable value. The first-in-first-out (FIFO) method is used as the consumption tracking method. Cost includes all acquisition costs incurred to bring inventories to their present location and condition. In addition to direct costs, production costs include appropriate portions of the necessary fixed and variable material and production overheads, insofar as they are incurred in connection with the production process.

The net selling price is the estimated selling price in the ordinary course of business less estimated costs of completion and selling expenses.

3.12. Taxes on income and earnings

Income tax expense or tax income represents the sum of actual and deferred tax expense or tax income. The current tax expense is determined on the basis of the taxable income for the respective year. Taxable income differs from income before income taxes as reported in the income statement because it excludes expenses and income that are taxable or deductible in prior or subsequent years or never. The Group's liability for current tax expenses is calculated on the basis of the tax rates that have been enacted or substantively enacted by the balance sheet date.

Deferred taxes are the expected tax burdens and reliefs from the differences between the carrying amounts of assets and liabilities in the tax balance sheets of the individual companies compared with the carrying amounts in the consolidated financial statements according to IFRS. Deferred taxes are not recognized for the following temporary differences: initial recognition of assets or liabilities in a transaction that is not a business combination and does not give rise to a gain or loss under IFRS or for tax purposes, and differences arising on investments in subsidiaries to the extent that it is probable that they will not reverse in the foreseeable future. In addition, no deferred taxes are recognized on temporary differences when goodwill is initially recognized.

Deferred taxes are calculated using the tax rate expected to apply when the temporary differences are reversed, based on laws enacted or substantively enacted at the balance sheet date. Deferred tax assets and liabilities are offset when there is an enforceable right to offset current tax liabilities and assets and they relate to taxes levied by the same taxation authority on the same or different taxable entities but that intend to settle their tax liabilities and assets together or where the tax liabilities and assets will be realized simultaneously.

Deferred tax assets are recognized to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized. Deferred tax assets are reviewed at each balance sheet date and reduced by the amount for which it is unlikely that a corresponding tax asset can be utilised.

Changes in deferred taxes are recognised as tax income or expense in the income statement unless they relate to items recognised in other comprehensive income or directly in equity, in which case the deferred taxes are also recognised in other comprehensive income or directly in equity.

3.13. Financial instruments

Financial instruments include investments in equity and debt instruments, trade receivables and other receivables, cash and cash equivalents, loans and credits as well as trade payables and other liabilities.

3.13.1. Approach and evaluation

Trade receivables are recognized from the date on which they arise. All other financial assets and liabilities are initially recognized on the trade date on which the AENOVA Group becomes a party to the contract under the terms of the financial instrument.

A financial asset (other than a trade receivable without a significant financing component) or a financial liability is initially measured at fair value. For an item that is not valued at FVTPL, transaction costs directly attributable to its acquisition or issue are added. Trade receivables without significant financing components are initially measured at the transaction price.

3.13.2. Classification and subsequent measurement of financial assets

On initial recognition, a financial asset or liability is classified and measured as follows:

- at amortised cost (AC)
- FVOCI debt instruments (investments in debt instruments measured at fair value through other comprehensive income)
- FVOCI equity instruments (equity instruments measured at fair value through other comprehensive income)
- FVTPL (at fair value through profit and loss)

Financial assets are not reclassified after initial recognition unless the AENOVA Group changes its business model for managing financial assets. In this case, all affected financial assets are reclassified on the first day of the reporting period following the change in the business model.

A financial asset is measured *at amortised cost* if both of the following conditions are met and it has not been designated as FVTPL:

- It is held within the framework of a business model whose objective is to hold financial assets in order to collect the contractual cash flows and
- the contractual terms of the financial asset result in cash flows at specified dates that represent only principal and interest payments on the outstanding principal.

A debt instrument is valued *at FVOCI* if both of the following conditions are met and it has not been designated as FVTPL:

- It is held within the framework of a business model whose objective is to hold financial assets in order to collect the contractual cash flows as well as to sell financial assets and
- its contractual terms give rise, at specified times, to cash flows representing only principal and interest payments on the outstanding principal.

Upon initial recognition of an equity instrument that is not held for trading, the AENOVA Group may irrevocably elect to show consequential changes in the fair value of the investment in other comprehensive income. This choice is made on a case-by-case basis for each investment.

All financial assets that are not measured at amortised cost or at FVOCI are measured at FVTPL. This includes all derivative financial assets. On initial recognition, the AENOVA Group may irrevocably elect to designate financial assets that otherwise qualify for measurement at amortised cost or at FVOCI as FVTPL if this results in eliminating or significantly reducing accounting anomalies that otherwise arise.

Subsequent measurement AC: All changes are recognised in profit or loss

Subsequent valuation of FVTPL: Net gains and losses, including any interest or dividend income, are recognised in profit or loss.

Subsequent measurement of debt instruments FVOCI: Interest income calculated using the effective interest method, foreign exchange gains and losses and impairments are recognised in profit or loss. Other net gains or losses are recognised in other comprehensive income. Upon derecognition, the accumulated other comprehensive income is reclassified to profit or loss.

Subsequent measurement of equity instruments FVOCI: Dividends are recognised as income in profit or loss, unless the dividend is manifestly covering part of the cost of the investment. Other net gains or losses are recognised in other comprehensive income and never reclassified to profit or loss.

3.13.3. Assessment of the business model: Procedure as of January 1, 2018

The AENOVA Group makes an assessment of the objectives of the business model as to whether the financial asset is held in order to collect all the contractual cash flows.

Trade receivables held for sale are measured at fair value at the time of initial recognition, as these receivables are held to collect cash flows but are sold before maturity.

3.13.4. Estimation of whether the contractual cash flows are exclusively interest and principal payments - procedure as of January 1, 2018

For the purpose of this assessment, the principal amount is defined as the fair value of the financial asset at initial recognition. "Interest' is defined as the consideration for the time value of money and for the risk of default associated with the principal outstanding over a specified period, as well as for other basic credit risks.

In assessing whether the contractual cash flows are exclusively interest and principal payments on the principal amount, the AENOVA Group takes into account the contractual agreements of the instrument. This includes an assessment of whether the financial asset contains a contractual agreement that could change the timing or amount of the contractual cash flows so that they no longer meet these conditions. In its assessment, the AENOVA Group takes into account the following factors

- certain events that would change the amount or timing of cash flows,
- early repayment and extension options and
- conditions restricting the AENOVA Group's right to receive cash flows from a specific asset.

3.13.5. Retirement

The AENOVA Group derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire or the rights to receive the cash flows are transferred in a transaction in which all significant risks and rewards of ownership of the financial asset are transferred.

The AENOVA Group derecognizes a financial liability when the contractual obligations have been fulfilled, cancelled or expired.

3.13.6. Assessment of the business model: Procedure before January 1, 2018

Before January 1, 2018, the AENOVA Group classified its financial assets into one of the following categories:

Cash and cash equivalents include cash in hand and overnight money. Overdrafts that are repayable on demand and represent a significant part of the Group's cash management are included in cash and cash equivalents for the purposes of the cash flow statement.

Non-derivative financial instruments are initially recognised at fair value plus directly attributable transaction costs, with the exception of assets classified as at fair value through profit or loss. Regular way purchases and sales of financial assets are recognized on the trade date, the date on which AENOVA commits to buy or sell an asset. Subsequent measurement depends on the classification of the financial instruments:

Debt instruments (loans and receivables, bonds) include trade receivables and other financial assets. They are measured at amortized cost less impairment losses. Loans and receivables are reported under other financial assets and trade receivables. Impairment losses on receivables are recognised using separate allowance accounts.

Financial instruments that are measured at fair value through profit or loss: A financial instrument is classified as at fair value through profit or loss if it is held for trading (HfT) or voluntarily designated upon initial recognition. Financial instruments are voluntarily designated at fair value through profit or loss if the Group manages these financial instruments in accordance with a documented risk management or investment strategy and their performance can be assessed on the basis of fair value. Upon initial recognition, attributable transaction costs are recognised in profit or loss as incurred. Any changes, including all interest and dividend income, in the fair value of such financial instruments are recognised in profit or loss.

Financial assets and financial liabilities are recognized in the balance sheet for the first time when an entity is a party to the financial instrument.

Financial assets are derecognized when the contractual right to cash flows expires or has been transferred and the Group has transferred all significant risks and rewards incidental to ownership.

3.13.7. Classification and subsequent measurement of financial liabilities

Financial liabilities are initially measured at fair value. The related transaction costs of all financial liabilities that are not measured at fair value through profit or loss are recognized as a deduction from the carrying amount of the liability. Trade payables and other non-derivative financial liabilities are measured at amortized cost (FLAC) using the effective interest method. Financial liabilities are derecognized after they have been repaid, i.e. when they are fulfilled, cancelled or expire.

3.14. Financial income and expenses

Financial income comprises interest income on invested capital, changes in the fair value of derivative financial instruments and currency gains. Interest income is recognized in the income statement when it is earned using the effective interest method.

Financial expenses include interest expenses on loans, the effect of compounding provisions, changes in the fair value of derivative financial instruments, impairment losses on financial assets and foreign exchange losses. Borrowing costs are generally recognised in profit or loss using the effective interest method.

3.15. Impairment of financial assets

New customers are first individually analyzed with regard to their creditworthiness before the AENOVA Group offers its standardized delivery and payment terms. This analysis includes external ratings, where available, financial statements, credit agency information, industry information and, in some cases, banking information.

The Group limits its default risk on trade receivables by setting a maximum payment target. The carrying amounts of the financial assets and contract assets correspond to the maximum default risk.

At each balance sheet date, the Group assesses whether there is objective evidence that financial assets measured at amortised cost or at FVOCI are impaired. The asset's creditworthiness is impaired if one or more events with an adverse effect on the expected future cash flows of the financial asset occur. Objective indications are the default or default of a debtor or indications that a debtor is going into insolvency. In determining whether the credit risk of a financial asset has increased significantly since initial recognition and in estimating expected credit losses, the Group considers appropriate and reliable information that is relevant and available without undue expense of time and money. This includes both quantitative and qualitative information and analyses based on the Group's past experience and sound estimates, including forward-looking information.

The gross carrying amount of a financial asset is adjusted when the Group does not believe, on a reasonable basis, that the financial asset will be recoverable in whole or in part. For this purpose, an individual estimate is made of the timing and amount of the value adjustment, based on the expectation that the receivable can be collected. From AENOVA's perspective, the default risk of a financial asset has increased if it is more than 30 days overdue. However, payment later than 30 days is not unusual due to standard industry procedures such as incoming quality controls. AENOVA only makes value adjustments in the amount it does not expect to receive payment.

For debt instruments valued at the FVOCI, credit losses are measured as the present value of defaults (i.e. the difference between the payments due to the AENOVA Group under the contract and the payments expected to be received by the AENOVA Group). The expected credit losses are discounted using the original effective interest rate of the corresponding debt instrument.

The AENOVA Group regards a financial asset as uncollectible if it is unlikely that the debtor will be able to pay its credit obligations in full to the AENOVA Group.

The AENOVA Group uses the simplified approach for general bad debt allowances on trade receivables, leasing receivables and contract assets. The simplified approach provides that the default credit risk is calculated on the basis of the amount of the expected credit loss over the entire term of the loan. Expected credit losses over the life of the financial instrument are expected credit losses resulting from all possible default events during the expected life of the financial instrument.

An impairment loss on a financial asset carried at amortised cost is calculated as the difference between its carrying amount and the present value of estimated future cash flows discounted at the original effective interest rate.

The Group uses an allowance matrix to measure expected credit losses on trade receivables and contract assets. The loss ratios are calculated using the roll rate method, which is based on the probability that a receivable will progress through successive stages in the payment delay. Roll rates are calculated separately for defaults in different segments based on the general credit risk characteristics of the geographic location. Loss rates are calculated on the basis of actual losses over the last three years. These rates were multiplied, where necessary, by scaling factors to reflect the differences between the economic conditions at the time the historical data was collected, the current conditions and the Group's view of the economic conditions over the expected life of the receivables.

Default risk is the risk of financial losses if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The default risk generally arises from trade receivables and contract assets of the AENOVA Group.

The following table provides information on the estimated credit risk and expected credit losses for trade receivables and contract assets as of December 31, 2018:

KEUR	Minimum loss rate	Maximum loss rate	Gross amount not adjusted individually	Expected credit losses
Not overdue	0,36%	16,60%	63.735	-1.049
Overdue less than 30 days	1,52%	24,97%	12.870	-914
Overdue between 31 and 90 days	2,33%	62,76%	3.118	-32
Overdue more than 90 days	0,00%	76,45%	5.207	-408
Total			**84.930**	**-2.403**

Where possible, the Group applies the exemption in IFRS 9 to other financial assets, as these investments have a low default risk. The default risk on cash and cash equivalents is very low due to the good ratings of the banks and credit institutions with which the funds are held.

Impairment losses on trade receivables and debt instruments classified as FVOCI are recognised in a separate account and, in the event of a reasonably certain default, the amount deemed uncollectible is recognised directly against the financial asset.

All value adjustments are recognised in the income statement.

An impairment loss is reversed when the reversal can be objectively related to an event occurring after the impairment loss was recognised. In the case of financial assets measured at amortised cost, any reversal of impairment losses is recognised in profit or loss.

3.16. Provisions for pensions and other employee benefits

The Group has various pension plans. These plans are generally financed by payments to external entities (fiduciary funds, insurance companies, pension and support funds). The Group has both benefit and contribution plans.

A contribution plan is a pension plan under which the Group pays fixed amounts to an independent entity. The Group has no legal or constructive obligation to pay additional amounts if the fund does not have sufficient assets to provide all employee benefits during the period and prior periods.

A benefit plan is a pension plan that is not a contribution plan. Under a defined benefit plan, the Group typically guarantees a certain amount that an employee will receive upon retirement as a pension commitment. This amount usually depends on various factors such as age, number of years of service and the employee's last salary before retirement.

The pension provision is determined annually by independent experts using the projected unit credit method for each defined benefit pension plan separately. The Group's obligation is calculated on the basis of the amount of the future entitlement that employees have acquired through their work performed in the past or in previous periods.

The obligation is discounted to its present value, the so-called gross pension obligation, using interest rates derived from the yields on senior fixed-rate corporate bonds of the currency in which the pension benefit is to be paid and whose remaining term is approximately the same as the term of the obligation until payment. The projected unit credit method also takes into account long-term future developments such as salary increases, pension adjustments or average life expectancy. The fair value of the related plan assets is deducted from the gross pension obligation. This results in the net liability to be recognized.

The company determines net interest expense (income) by multiplying the net liability at the beginning of the period by the interest rate used to discount the gross defined benefit obligation at the beginning of the period, taking into account payments and contributions during the year. Actuarial gains and losses resulting from experience adjustments and changes in actuarial assumptions as well as the difference between the actual return on plan assets and the typical return assumed at the beginning of the period are recognised in other components of equity in the period in which they arise. The past service cost is recognised immediately in profit or loss. If the present value of a defined benefit obligation changes as a result of a change or curtailment in the plan, the company recognises the resulting effects as past service cost in profit or loss for the period.

For defined contribution plans, the Group pays either contractually agreed or voluntary contributions to public or privately administered pension plans. The Group has no further payment obligations after these contributions have been paid. The amounts to be paid under contribution plans are expensed when the obligation to pay the amounts arises and reported as personnel expenses. Prepayments of contributions are capitalized if these prepayments will result in a refund or a reduction in future payments.

3.17. Other provisions and accrued liabilities

See comments under 3.4 Discretionary decisions and estimates.

3.18. Leases

Lease transactions are classified as either finance leases or operating leases. Leases for which the Group bears all significant risks and rewards of ownership are classified as finance leases. On initial recognition, the asset underlying the lease is measured at the lower of its fair value and the present value of the minimum lease payments. In the following, the recognition of the asset is adjusted in line with the Group's accounting rules for assets of this type. The minimum lease payments made under the lease are divided into an interest component and a repayment component. The interest portion is recognized in the financial result. Rental and lease payments made by the Group as lessee under operating leases are recognized as other operating expenses during the lease term.

Leasing transactions in which the Group is the lessor and transfers all opportunities and risks associated with ownership to the lessee are accounted for by the lessor as sales and finance leases. A receivable is recognised in the amount of the net investment in the lease and the interest income is recognised in profit or loss. All other leasing transactions in which the Group is the lessor are recorded as operating leases. In this case, the leased asset remains in the consolidated balance sheet and is subject to scheduled depreciation. The lease payments are recognised as income on a straight-line basis over the term of the lease.

3.19. Cash and cash equivalents

Cash and cash equivalents include cash on hand and bank balances with a term of up to three months.

99% of liquid funds are held by banks and credit institutions with a Moody's rating of Baa2 or better. These 99% contain at least 74% which are even rated A1 or higher.

4. Financial risk management

Due to its business activities, AENOVA is exposed to certain financial risks. These can be divided into three areas:

- credit default risk,
- liquidity risk and
- market risk (foreign currency risk, interest rate risk).

Group risk management focuses on unforeseeable events on the financial markets and attempts to minimize adverse effects on the Group result. The Group uses derivative financial instruments to hedge certain risks.

The overall responsibility for establishing and monitoring a Group-wide risk management system lies with the management. Risk management is carried out by defined persons responsible within the Corporate Accounting and Corporate Controlling departments in accordance with defined guidelines approved by the Board of Management. Risk identification, assessment and hedging are carried out in close cooperation and coordination with the operating business units.

This section provides information on risk positions, risk management objectives, methods and processes for measuring and managing risk, and the Group's capital management.

The risk management guidelines are intended to help the Group identify and analyse risks so that appropriate controls and risk limits can be established to monitor risks and comply with risk limits.

The credit agreements of the AENOVA Group contain financial covenants. AENOVA continuously monitors compliance with these key figures on the basis of forecasts and simulations. All covenants were complied with in the year under review with sufficient scope.

4.1. Credit default risk

Default risk is the risk of financial loss if a customer or business partner is unable to meet its contractual obligations with respect to a financial instrument and arises primarily from the Group's trade receivables from customers.

The carrying amount of financial assets corresponds to the maximum default risk. The maximum default risk is shown in the following table:

KEUR	Dec. 31, 2018	Dec. 31, 2017
Trade receivables and contract assets	82.527	38.099
Cash and cash equivalents	49.571	33.268
Other financial assets	10.749	16.117
Maximum credit exposure	**142.847**	**87.485**

The default risk is analysed and controlled by a central responsibility (credit risk management). The outstanding amounts are analysed and evaluated on a weekly basis and measures are defined with the responsible market managers. In the case of new business relationships, the individual company carries out its own independent analysis of default risks in order to determine payment and delivery terms that are commensurate with the risk. Central Credit Risk Management reviews and approves the conditions on a case-by-case basis, taking into account the assessment of an external and independent rating agency.

External customer ratings are used if they exist. If these are not available, an internal risk assessment is carried out based on a qualitative analysis of the customer (financial ratios, other ratios), past experience and other criteria. As a result of the analysis, risk limits are set for each customer, reviewed and approved by management. No risk limits were exceeded during the reporting period. There were no significant concentrations of risk in the period under review, as the total portfolio of receivables is spread across a sufficiently large number of individual customers from various countries.

Goods are sold with retention of title clauses so that AENOVA has a secured claim in the event of non-payment. The Group has no trade receivables or contract assets for which no impairment losses have been recognized due to collateral. AENOVA does not demand any securities with regard to accounts receivable from deliveries and services and other accounts receivable.

The AENOVA Group uses the simplified approach for trade receivables, leasing receivables and contract assets. The simplified approach provides that the default credit risk is calculated on the basis of the amount of the expected credit loss over the entire term of the loan.

Loss rates are calculated on the basis of actual credit losses over the last three years. These rates were multiplied by scaling factors where necessary to reflect the differences between the economic conditions at the time the historical data was collected, the current conditions and the Group's view of the economic conditions over the expected life of the receivables.

The maximum period to be considered in estimating expected credit losses is the maximum contractual period during which the Group is exposed to credit risk.

4.2. Liquidity risk

Liquidity risk describes the risk that AENOVA will not be able to meet its financial obligations when they fall due, such as the repayment of financial liabilities or the settlement of liabilities to suppliers. As part of liquidity management, the Corporate Finance department ensures that sufficient liquid funds are always available to meet payment obligations in a timely manner under both normal and difficult conditions, without incurring unacceptable losses or the risk of damage to reputation.

A liquidity forecast is prepared for the purpose of short- and medium-term liquidity management. Preparation is carried out by the Group companies; consolidation and evaluation are carried out at the level of AENOVA Holding GmbH, where it is ensured that sufficient liquidity reserves are available to meet operational payment obligations and financing obligations. The liquidity forecast takes into account AENOVA's financing plans (interest and principal payments), compliance with certain financial covenants, compliance with internal targets with regard to balance sheet ratios and - if available - external regulatory or statutory requirements.

AENOVA uses the liquidity forecast to monitor the main payment movements and to ensure sufficient liquidity in the AENOVA Group. The Group also uses the monthly balance sheets, income statements, working capital plans and investment reports to monitor long-term liquidity. In principle, it is ensured that sufficient financial resources are available to cover the expected operating expenses and to service the financial liabilities for a period of 40 days. This excludes possible influences of extraordinary events that cannot be reliably planned, such as natural catastrophes.

In addition to effectively managing liquidity and working capital, the Group reduces the liquidity risk through a revolving credit facility of KEUR 50,000 from Unicredit AG, London. The revolving credit facility was utilized as of December 31, 2018 in the amount of KEUR 15,000. In addition, KEUR 2,500 (previous year: KEUR 2,500) are reserved for guarantees.

The majority of liabilities are fixed with regard to interest rates and repayment dates. The concentration of risk is mainly due to the fixed interest rates vis-à-vis Unicredit AG, London, and Deutsche Bank AG, Frankfurt am Main. AENOVA is exposed to a medium concentration of risk due to the sufficient liquidity available and the existing credit lines.

The contractually agreed future cash outflows of the financial liabilities shown in the balance sheet are shown undiscounted in the following table. This includes interest and principal payments. Cash outflows from financial liabilities repayable on demand are presented at the earliest possible repayment date. Payments whose amount depends on a variable interest rate are shown at market conditions on the respective balance sheet date. As of December 31, 2018, it is not foreseeable that cash outflows will occur significantly earlier or with a significantly different amount.

Dec. 31, 2018 KEUR	< 1 year	1-5 years	> 5 years
Trade payables	53.493	228	25
Bank loans	1.749	655.784	2.436
Derivative financial liabilities	-	-	-
Accrued liabilities	15.910	15.749	4.645
Leasing liabilities	4.403	14.254	17.840
Shareholder loans	-	207.672	-
Accrued interest	-	80.026	-
Other financial liabilities	38.928	17.874	1.379
	114.482	**991.588**	**26.326**

Dec. 31, 2017 KEUR	< 1 year	1 - 5 years	> 5 years
Trade payables	72.510	123	36
Bank loans	49.543	635.717	-
Derivative financial liabilities	-	-	-
Accrued liabilities	30.755	2.856	6.136
Leasing liabilities	5.853	11.079	20.148
Shareholder loans	-	209.172	-
Liabilities to related parties	-	61.201	-
Other financial liabilities	42.999	824	6.712
	201.659	**920.971**	**33.033**

4.3. Market risk

4.3.1. Foreign currency risk

Foreign currency risks result from operating activities and investments in foreign operations. The foreign currency risk of individual subsidiaries is managed and optimized on the basis of the respective functional currency.

Group management has established guidelines according to which the individual companies must hedge themselves against foreign currency risks. Individual companies that carry out transactions in currencies other than their functional currency are obliged to hedge against foreign currency risks with the involvement of the Treasury department. Hedging is carried out either by means of forward exchange transactions approved by Group management or by holding foreign currencies. The operating units are prohibited from entering into derivatives for speculative purposes or from borrowing or investing funds in foreign currencies.

Foreign currency flows are continuously analyzed and, if necessary, hedged by forward transactions such as currency options or forward transactions in order to avoid currency losses. The payment surpluses from sales transactions are offset by natural hedging by controlling incoming and outgoing payments in the respective currency (natural hedge strategy).

Foreign currency risks are presented as part of a sensitivity analysis in accordance with IFRS 7. This analysis shows the effect of a hypothetical change in the relevant risk variables on profit before tax by showing the effect of an appreciation or depreciation of the Euro relative to the foreign currencies that are significant to the Group. This analysis uses financial instruments that are denominated in a currency other than the functional currency and are of a monetary nature. In accordance with the requirements of IFRS 7, effects from the translation of the financial statements into the Group reporting currency are not included in the analysis. There are no effects on equity in the Group with the exception of the effects on earnings before taxes:

KEUR +10% increase of EUR	2018	2017
against CHF	-1.566	-139
against USD	170	481
against GBP	-6	0
against RON	174	66
Total	**-1.228**	**409**

KEUR -10% increase of EUR	2018	2017
against CHF	1.566	139
against USD	-170	-481
against GBP	6	-0
against RON	-174	-66
Total	**1.228**	**-409**

4.3.2. Interest rate risk

The interest rate risk of AENOVA results from the long-term, variable-interest loans. By borrowing at variable rates, the Group is exposed to cash flow interest rate risk, which is partially offset by cash at variable rates. The Group is exposed to a fair value interest rate risk from borrowings at fixed interest rates.

The Group analyses its interest rate risks on a dynamic basis. Based on the various scenarios, the Group manages its cash flow interest rate risk through variable-to-fix interest rate swaps. Such interest rate swaps have the economic effect of converting floating rate borrowings into fixed rate borrowings. Upon entering into the interest rate swaps, the Group agrees with other parties at specified intervals (quarterly) to settle the difference between the fixed installments and the variable-rate amounts on the basis of the contractual notional amounts.

AENOVA is exposed to interest rate risks due to bank loans with variable interest rates. The interest rates consist of a fixed margin and a variable interest component based on EURIBOR. The variable component has a floor of 1.00%, so that with a EURIBOR of less than 1.00%, the margin plus 1.00% is used as the variable interest rate. The nominal amount of long-term bank loans with variable interest rates was KEUR 639,040 as of December 31, 2018. AENOVA does not currently use any payer interest rate swaps. The last payer swaps concluded expired on March 31, 2017 and have not been renewed. As AENOVA does not expect the EURIBOR to rise to over 1.00% in the medium term, the company is exposed to only a low risk in the medium term.

Interest rate risks are presented as part of a sensitivity analysis in accordance with IFRS 7. This shows the effects of changes in the market interest rate on interest payments, interest income and interest expense, other income and expense accounts and, where applicable, on equity. The interest sensitivity analysis is based on the following assumptions:

- Changes in the market interest rates of all non-derivative fixed-rate financial instruments carried at amortised cost are not part of the interest rate risk in accordance with IFRS 7.
- Changes in market interest rates affect the interest income or interest expense of non-derivative variable-rate financial instruments whose interest payments are not hedged within a hedging relationship. They are therefore included in the calculation of the sensitivities of the effects on earnings before taxes.
- A change of 100 basis points in the reference interest rate at the reporting date would have increased (decreased) the result by the effect shown in the following table. This analysis is based on the risk on the respective reporting date and includes the variable-interest financial instruments existing on the reporting date. It is assumed that all other variables, in particular foreign exchange rates, remain constant.

KEUR	Effect on earnings before income taxes	Effect on equity
Scenario 1: increase in interest rate structure by 100 base		
2018	-	-
2017	-	-
Scenario 2: decrease in interest rate structure by 100 base		
2018	-	-
2017	-	-

5. Notes to the consolidated statement of comprehensive income

5.1. Revenues

The effect of the first-time application of IFRS 15 on income from contracts with customers of the AENOVA Group is described in Note 3.5. Due to the transition method applied for IFRS 15, the comparative information was not adjusted to the new regulations.

The AENOVA Group generates revenues mainly from the sale of the following dosage forms:

- Solids
- Semi-solids and liquids
- Softgel capsules

Revenues consist of gross revenues less customer discounts and rebates.

The following table shows the revenues from contracts with customers according to the most important dosage forms as well as the development and licensing activities. They are also disaggregated by the date on which revenue is recognised.

KEUR	Sale of goods	Rendering of Service & Others	Total 2018
Product Lines			
Solids (SOL)	399.822	-	399.822
Semi-solids and liquids (SEL)	143.050	-	143.050
Softgel capsules (SGC)	130.518	-	130.518
Service & others	-	48.549	48.549
Revenues	**673.390**	**48.549**	**721.940**

KEUR	Total 2018
Revenue transferred to customers over time	608.300
Revenue transferred to customers at a point in time	113.640
Revenues	**721.940**

The discounts and rebates relate exclusively to goods sold. Revenues from the provision of services relate to analytical services, packaging services, contract development and other services.

As permitted by IFRS 15, no disclosures are made about the remaining benefit obligations at December 31, 2018 that have an expected original maturity of one year or less.

The breakdown of revenues by geographical region is shown in the table below:

KEUR	Jan. 1 - Dec. 31, 2018	Jan. 1 - Dec. 31, 2017
Germany	268.045	273.148
Rest of Europe	343.566	362.325
USA	36.845	36.279
Rest of world	73.483	61.492
Revenues	**721.940**	**733.244**

The following table provides information on receivables, contract assets and contract liabilities under contracts with customers:

KEUR	Dec. 31, 2018	Jan.1, 2018
Contract assets	40.274	48.978
Contract liabilities	8.107	-
Revenues recorded within the period:		
Amounts recognized in contract liability **at beginning of the period**	175	-

The contract assets mainly relate to the AENOVA Group's claims for consideration for services from contract manufacturing of pharmaceuticals that have been completed but not yet invoiced as of the balance sheet date. Contract assets are reclassified to trade receivables when the rights become unconditional. This is usually done when the invoice is issued to the customer.

The contractual liabilities mainly relate to investment grants received from customers for the purchase of machines for the production of pharmaceuticals, for which sales revenues are recognized over a certain period.

5.2. Other operating income

KEUR	Jan. 1 - Dec. 31, 2018	Jan. 1 - Dec. 31, 2017
Capitalised services	988	1.433
Release of provisions (previous periods)	6.923	4.646
Reimbursements	114	298
Rental income	373	340
Gain on disposal of tangible and intangible assets	2.123	127
Income from investment grants	331	239
Remaining other operating income	34.588	7.204
Other operating income	**45.439**	**14.286**

Own work capitalised mainly relates to own work in connection with the installation and conversion of property, plant and equipment. Other operating income from the sale of the subsidiary Euro Vital Pharma GmbH amounted to KEUR 27,038. Income from the reversal of provisions does not include KEUR 5,460 from other provisions. The amount mainly results from the reversal of provisions for performance bonuses.

5.3. Cost of material and services purchased

KEUR	Jan. 1 - Dec.	Jan. 1 - Dec.
Costs of raw materials, consumables and supplies	-277.411	-298.466
Costs of services purchased and subcontracting	-15.129	-13.170
Cost of material and services purchased	**-292.541**	**-311.636**

5.4. Personnel expenditure

KEUR	Jan. 1 - Dec. 31, 2018	Jan. 1 - Dec. 31, 2017
Wages and salaries	-190.918	-192.049
thereof termination benefits	*-3.239*	*-913*
Expenses for temporary workers	-14.817	-16.620
Other personnel expenses	-6.173	-6.201
Social security, post-employment and welfare costs	-38.273	-39.980
thereof pension costs for defined benefit plans	*-5.201*	*-4.979*
thereof pension costs for defined contribution plans	*-265*	*-460*
thereof social security expenses	*-32.807*	*-33.627*
Employee benefit expenses	**-250.181**	**-254.849**

The expenses for defined contribution plans essentially include the employer's contribution to the statutory pension insurance. For the development of personnel expenses due to share-based payments, see section 11 Share-based payments.

The average number of employees in fiscal year 2018 was 4,319 (2017: 4,469), of which 2,647 were in production, 730 in quality and 942 in other areas. Due to the first-time conversion in 2018, no prior-year figures are available.

Of the personnel expenses, KEUR 5,362 (2017: KEUR 8,393) are attributable to employees in the Development division.

5.5. Impairment expenses/income

KEUR	Jan. 1 - Dec.	Jan. 1 - Dec.
Reversal of bad debt allowance (previous periods)	1.538	58
Impairment loss on trade receivables and contract assets	-846	-1.805
Impairment loss/gain on trade receivables and contract assets	**692**	**-1.747**

The income from the reduction of bad debt allowances is mainly attributable to the reversal of a individual valuation allowance of KEUR 1,449 recognized in 2017.

5.6. Other operating expenses

KEUR	Jan. 1 - Dec.	Jan. 1 - Dec.
Plant and machinery expense	-46.447	-48.508
Legal and other advisory	-7.936	-14.979
Rent and other expenses for production and office facilities	-11.759	-13.408
Expenses related to onerous contract	-2.533	
Distribution costs	-4.595	-5.838
Administration expenses	-1.732	-1.958
Insurance expenses	-1.856	-1.837
Travelling expenses	-1.729	-2.054
Marketing & advertising expenses	-828	-791
Loss on disposal of assets	-3.783	-719
Warranty Expenses	-525	4.808
Licences, provisions and patents	-190	-400
Material overhead costs	-10.931	-12.130
Other operating expenses	-6.258	-10.010
Other operating expenses	**-101.101**	**-107.823**

Of the other operating expenses of KEUR -101,101 (2017: KEUR -107,823), KEUR -1,240 account for related parties.

Plant and machinery expenses mainly include costs for the operation and maintenance of production facilities.

In addition to costs for tax consulting and auditing, legal and consulting expenses primarily include consulting expenses in connection with strategic projects of the Group.

Rental expenses include current rental payments for rented production and administration buildings.

Other material overheads mainly include consumables for laboratory and analytical activities, packaging materials for freight, work clothing and material costs that are not included in the material parts lists.

5.7. Financial income

KEUR	Jan. 1 - Dec.	Jan. 1 - Dec.
Income from foreign exchange differences	11.094	16.983
Interest income	3.829	70
Other	111	107
Financial Income	**15.034**	**17.160**

Interest income mainly results from interest credits for trade and corporation taxes from 2007 to 2012. Currency gains result from exchange rate fluctuations for realized (KEUR 3,659) and unrealized (KEUR 7,435) foreign currency transactions and mainly relate to foreign currency transactions in CHF, USD and GBP. Both unrealized and realized foreign currency gains result from trade receivables and payables.

5.8. Financial expenses

KEUR	Jan. 1 - Dec. 31, 2018	Jan. 1 - Dec. 31, 2017
Interest expenses on financial liabilities measured at amortised cost	-67.082	-63.650
Expenses from foreign exchange differences	-12.676	-16.009
Interest cost on defined benefit plans	-864	-840
Other	-1.320	-1.569
Financial expenses	**-81.942**	**-82.069**

Interest expenses for financial liabilities measured at amortized cost mainly relate to interest expenses in connection with bank loans and amount to KEUR -39,006 in fiscal year 2018 (2017: KEUR -38,577) and interest on shareholder loans to KEUR -18,825 (2017: KEUR -18,825).

Interest on bank loans mainly includes interest expenses to Unicredit Bank, London. Interest to shareholders relates entirely to loans granted by Apollo Holding 11 S.à r.l. Other financial expenses mainly include bank charges in connection with regular payment transactions as well as bank charges in connection with corporate transactions.

The currency losses result from exchange rate fluctuations for realized (KEUR 4,298) and unrealized (KEUR 8,378) foreign currency transactions and mainly relate to foreign currency transactions in CHF, USD and GBP. Both unrealized and realized foreign exchange losses result from deliveries and services.

5.9. Taxes on income and earnings

KEUR	Jan. 1 - Dec. 31, 2018	Jan. 1 - Dec. 31, 2017
Current taxes	-4.661	-8.153
Deferred taxes	10.657	4.745
Income taxes	**5.996**	**-3.408**

In Germany, current taxes on distributed and retained profits are calculated on the basis of a uniform corporate income tax rate of 15% and a solidarity surcharge of 5.5% applicable to this rate. In addition to corporation tax, trade tax is levied on profits earned in Germany. For trade tax, the average tax rate is 13.69% (2017: 13.38%), resulting in an overall domestic tax rate of 29.52%. This is used to measure domestic deferred taxes.

The taxable result generated by foreign subsidiaries is determined on the basis of the respective national tax law and taxed at the tax rate applicable in the country of domicile. The tax rates applied for this are between 12.50% and 30.00%.

The following table shows the reconciliation between the expected income tax expense and the actual income tax expense reported. The tax rate of 29.52% (2017: 29.20%) applied in the reconciliation is the total domestic tax rate.

KEUR	Jan. 1 - Dec. 31, 2018	Jan. 1 - Dec. 31, 2017
Earnings before income taxes (EBT)	**-27.495**	**-64.633**
Expected tax rate	29,52%	29,20%
Expected income taxes	**8.117**	**18.873**
Tax effects resulting from:		
Changes of tax rates	9	267
Tax rate differences	2.414	3.773
Non-taxable dividend income	7.894	-30
Non-tax deductible interest expenses	-11.205	-13.648
Other Non-tax-deductible items	-1.065	-175
Non recognition of deferred tax assets on tax losses brought forward	-	-1.078
Reduction of tax assets deferred the previous year on tax losses brought forward	-409	-3.424
Adjustment of deferred taxes previous years	-735	-3.705
Income offset against tax loss not recognised as deferred tax assets	431	-1.872
Imputation of deferred taxes	953	-
Prior year current taxes	334	-808
Other effects	-742	-1.581
Income taxes	**5.996**	**-3.408**
Effective income tax rate	21,81%	-5,27%

The non-recognition of deferred tax assets on tax losses of KEUR 409 relates to Swiss Caps LuxCo S.a.r.l., Swiss Caps Holding AG and Aenova France SAS (2017: KEUR -3,424 Swiss Caps LuxCo S.a.r.l., Swiss Caps USA Inc., Contract Packaging Resources Inc. USA and Aenova France SAS). These losses were not recognised as it is not probable that the loss carryforwards will be available for use due to tax planning over several years. In total, deferred tax assets of KEUR 23,887 (2017: KEUR 30,680) on tax losses and loss carryforwards were not recognised.

For Apollo 5, deferred tax assets of KEUR 735 were reduced in the fiscal year, as the loss carryforwards were reduced due to the completion of the current tax audit.

The tax loss carryforwards in Germany (only for corporation tax purposes) and France can be used indefinitely in their amount and eligibility for carryforward, taking into account the minimum taxation. In Luxembourg, the tax loss carryforwards are unlimited and can be used without restriction. Whereas in other countries it is only possible to carry losses forward for a certain period of time (e.g. Switzerland: seven years; USA: 20 years).

Tax loss carryforwards and tax credits amounted to KEUR 152,697 as of December 31, 2018 (2017: KEUR 155,503). Deferred tax assets of KEUR 6,120 (2017: KEUR 8,586) were recognised on these items, provided that sufficient taxable temporary differences exist or that it is probable that they will be used on the basis of business expectations. Deferred tax assets were recognised on tax credits of Haupt Pharma Latina and Temmler Italia.

No deferred tax assets were recognised on interest carried forward amounting to KEUR 270,292 (2017: KEUR 231,495). The interest carried forward results from non-deductible interest expenses for bank and shareholder loans pursuant to section 4h EStG ("interest barrier"). The interest carryforwards were not recognised because it is considered unlikely that the interest carryforwards can be used due to the financing structure and the multi-year corporate planning.

The deferred tax assets and liabilities were formed on temporary differences for the following balance sheet items:

KEUR	Jan. 1, 2018 Net	Recognized in Profit or Loss	Recognized in other comprehensive income	Recognized directly in equity (Sale of business EVP)	Dec. 31, 2018 Net	Deferred tax asset	Deferred tax liability
Share-based payments	1.046				1.046	1.046	
Tax loss carryforward	7.477	-1.357			6.120	6.120	
Non-current assets	**-51.983**	**7.740**	**-**	**1.729**	**-42.514**	**2.023**	**-44.537**
Intangible assets	-36.317	6.531		1.729	-28.057	21	-28.078
Property, plant and equipment	-15.787	1.739			-14.048	1.880	-15.928
Other non-current financial assets	-	-			-	-	-
Other non-current assets	121	-530			-409	122	-531
Current assets	**-1.694**	**1.693**	**-2.412**	**-**	**-2.413**	**2.247**	**-4.660**
Inventories	-1.446	2.931			1.485	1.485	-
Trade receivables	-300	-1.631	-2.412		-4.343	9	-4.352
Other current financial assets	4	-20			-16	9	-25
Other current assets	48	413			461	744	-283
Non-current liabilities	**8.586**	**-292**	**-344**	**-**	**7.950**	**18.462**	**-10.512**
Provision for pensions	9.251	-1.177	-344		7.730	7.730	-
Other non-current provisions	319	-713			-394	936	-1.330
Non-current financial liabilities	7.140	2.389			9.529	9.529	-
Other non-current liabilities	-8.124	-791			-8.915	267	-9.182
Current liabilities	**-3.445**	**2.873**	**-**	**-**	**-572**	**1.109**	**-1.681**
Trade payables	2	-39			-37	231	-268
Current provisions	-921	539			-382	493	-875
Current financial liabilities	-1.914	2.241			327	328	-1
Other current liabilities	-612	132			-480	57	-537
Tax loss carryforwards		-	-		-	-	-
Total	**-40.013**	**10.657**	**-2.756**	**1.729**	**-30.383**	**31.007**	**-61.390**

Deferred tax assets include deferred taxes on actuarial gains and losses of KEUR 344 (2017: KEUR 634) recognized directly in equity.

Deferred tax assets are recognized to the extent that sufficient taxable temporary differences exist or it is probable that future taxable profit will be available. Before netting, the Group has recognized deferred tax assets of KEUR 31,007 (2017: KEUR 27,951) for the financial years 2018 to 2022. Where legally permissible, deferred tax assets are offset against deferred tax liabilities. No deferred tax liabilities were recognized for temporary differences in connection with investments in subsidiaries, as it is not expected that these temporary differences will be realized in the foreseeable future.

6. Notes to the consolidated balance sheet

6.1. Intangible assets

KEUR	Goodwill	Licences, patents, trademarks and other rights	Development costs	Software	Customer contracts and relationships	Other intangible assets	Prepay-ments to third party	Total
Cost								
At Jan. 1, 2018	**275.864**	**16.749**	**40.201**	**52.009**	**257.219**	**86.502**	**3.182**	**731.725**
Additions	-	136	-	1.280	-	17	90	1.523
Disposals of businesses	-780	-566	-	-70	-21.596	-	-18	-23.031
Transfers	-	-	-	517	-	-	-501	16
Disposals	-	-5.731	-	-1.283	-	-	-	-7.014
Currency translation	-	41	7	9	-	-10	-	47
At Dec. 31, 2018	**275.084**	**10.629**	**40.208**	**52.462**	**235.622**	**86.510**	**2.753**	**703.267**
Accumulated amortisation and impairment								
At Jan. 1, 2018	**-10.127**	**-5.649**	**-32.209**	**-36.860**	**-163.032**	**-64.058**	**-306**	**-312.241**
Additions (amortisation)	-	-2.044	-1.202	-5.792	-21.494	-5.559	-	-36.092
Disposals of businesses	-	488	-	70	16.022	-	-	16.581
Impairment losses	-	-2.645	-	-	-	-	-	-2.645
Transfers	-	-	-	-	-	-	-	-
Disposals	-	2.857	-	213	-	-0	-	3.070
Currency translation	-	-41	-7	-3	-	9	-	-41
At Dec. 31, 2018	**-10.127**	**-7.033**	**-33.418**	**-42.372**	**-168.504**	**-69.609**	**-306**	**-331.368**
Carrying amount								
At Jan. 1, 2018	**265.737**	**11.100**	**7.991**	**15.148**	**94.186**	**22.443**	**2.876**	**419.484**
At Dec. 31, 2018	**264.957**	**3.596**	**6.789**	**10.090**	**67.118**	**16.901**	**2.447**	**371.899**

KEUR	Goodwill	Licences, patents, trademarks and other rights	Development costs	Software	Customer contracts and relationships	Other intangible assets	Prepay-ments to third party	Total
Cost								
At Jan. 1, 2017	**275.864**	**16.365**	**40.172**	**46.425**	**257.219**	**86.662**	**2.918**	**725.625**
Additions	-	626	26	5.470	-	37	296	6.456
Acquisitions of businesses	-	-	-	-	-	-	-	-
Transfers	-	0	-	166	-	-	2	168
Disposals	-	-197	-	-182	-	-	-35	-413
Currency translation	-	-46	3	130	-	-197	-	-110
At Dec. 31, 2017	**275.864**	**16.749**	**40.201**	**52.009**	**257.219**	**86.502**	**3.182**	**731.725**
Accumulated amortisation and impairment								
At Jan. 1, 2017	**-10.127**	**-3.652**	**-30.763**	**-30.698**	**-140.707**	**-59.846**	**-306**	**-276.100**
Additions (amortisation)	-	-2.167	-1.440	-6.199	-22.325	-4.325	-	-36.456
Acquisitions of businesses	-	-	-	-	-	-	-	-
Impairment losses	-	-725	-	-	-	-	-	-725
Transfers	-	725	-	-	-	-	-	725
Disposals	-	193	-	178	-	0	-	371
Currency translation	-	-23	-6	-142	-	113	-	-58
At Dec. 31, 2017	**-10.127**	**-5.649**	**-32.209**	**-36.860**	**-163.032**	**-64.058**	**-306**	**-312.241**
Carrying amount								
At Jan. 1, 2017	**265.737**	**12.713**	**9.409**	**15.727**	**116.511**	**26.815**	**2.612**	**449.525**
At Dec. 31, 2017	**265.737**	**11.100**	**7.991**	**15.148**	**94.186**	**22.443**	**2.876**	**419.484**

Of the total research and development expenses of KEUR 7,725 (2017: KEUR 11,875), development costs of KEUR 0 (2017: KEUR 26) were capitalized as intangible assets. In the fiscal year, impairment losses of KEUR 2,645 (2017: KEUR 725) on intangible assets were recognized under amortization. The value allowances were made because no future economic benefit is to be expected from the use of the capitalized development projects for the projects concerned and the completion of some of the projects no longer appears technically possible. Other intangible assets mainly comprise technological know-how.

All patents and trademarks held are pledged to Unicredit Bank, London, as security for the loan receivables.

Material intangible assets mainly comprise customer bases and order backlogs acquired as part of the acquisition of the AENOVA Group. The acquired customer bases can be categorized according to different customer types. As of the balance sheet date, the carrying amounts reported under customer contracts and customer relationships and the remaining useful lives of the customer bases are as follows:

KEUR	Dec. 31, 2018	Dec. 31, 2017
Customer base - Contract Manufacturing Organisation	36.127	44.085
Customer base - Contract Development and Manufacturing Organisation	27.873	37.976
Customer base - Private Label Germany	238	553
Customer base - Over The Counter	1.971	10.058
Customer base - Private Label USA	351	816
Customer base - Licenses	559	698
Customer base - Own products	-	-
Customer base	**67.118**	**94.186**

Remaining useful lifes in years	Dec. 31, 2018	Dec. 31, 2017
Customer base - Contract Manufacturing Organisation	8,0	8,3
Customer base - Contract Development and Manufacturing Organisation	2,8	3,8
Customer base - Private Label Germany	0,8	1,8
Customer base - Over The Counter	1,8	3,9
Customer base - Private Label USA	0,8	1,8
Customer base - Licenses	4,0	5,0
Customer base - Own products	0,0	0,0

For the purpose of impairment testing, goodwill of KEUR 264,957 (2017: KEUR 265,738) is allocated to a cash-generating unit (CGU), which represents the lowest level in the Group at which goodwill is monitored for internal management purposes.

The carrying amount of the CGU Aenova Group is compared with the recoverable amount as part of the impairment test. An impairment loss on goodwill is recognised if the net assets of the CGU Aenova Group including the related goodwill exceed the recoverable amount of the CGU Aenova Group. The recoverable amount is defined as the higher of fair value less costs to sell and value in use. It is not always necessary to determine the fair value less costs to sell and the value in use for a CGU if one of the two exceeds the net assets including goodwill of the CGU. In the present case, only the value in use was determined, as this exceeds the net assets including goodwill of the CGU Aenova Group. The most important assumptions on which the calculation of the value in use is based include estimated growth rates and weighted average capital costs. Forecasts of future cash flows reflect past experience and are based on management's best estimate of future developments.

The value in use was calculated on the basis of future cash flows derived from the current planning 2019 - 2022 of the CGU Aenova Group approved by management. The planning is based on the development of sales volumes in the individual markets, expected new products and empirical values. For the planning period 2019 - 2021, a compound annual growth rate of 4.0% was assumed for revenues and 6.0% for EBITDA. The EBITDA growth rate was adjusted for the deconsolidation gain resulting from the sale of Euro Vital Pharma GmbH in the year under review (see section 3.1.2). After fiscal year 2021, constant growth rates are assumed for the development of budgeted sales and EBITDA. The respective growth rate of 1% does not exceed the average expected long-term inflation rate and was also used to determine the terminal value.

The discount rates reflect current market assessments of the time value of money and the specific risks attributable to each cash-generating unit. The calculation of the discount rate takes into account the risk-free interest rate, a corresponding company-specific risk and borrowing costs.

The planning and discounting are based on the following fundamental assumptions:

Discount rates	2018	2017
Value in use (after tax)		
CGU Europe		8,93%
CGU USA		9,09%
CGU Aenova Group	9,31%	
Planned EBITDA* growth (average of next three years)		
CGU Europe		15,90%
CGU USA		20,40%
CGU Aenova Group	6,00%	
Sustainable growth rate (terminal value)		
CGU Europe		1,00%
CGU USA		1,00%
CGU Aenova Group	1,00%	

An impairment loss is recognised if the net assets of a CGU, including the pro rata goodwill, exceed the recoverable amount. The recoverable amount of the CGU Aenova Group of 881.5 MEUR (2017: 887.5 MEUR) exceeds the net assets including pro rata goodwill by 305.1 MEUR (2017: 214.7 MEUR). The reduction in the recoverable amount is due to a planning scenario that was redesigned in the fiscal year.

A 3% reduction in the EBITDA growth rate over the next three years would reduce the recoverable amount of the CGU Aenova Group to 875.6 MEUR and would exceed the Company's net assets including goodwill by 299.1 MEUR.

The Group has performed sensitivity analyses regarding an increase/decrease in the discount rates applied. An increase in the discount rate by one percentage point would not have resulted in an impairment loss. The recoverable amount of the CGU Aenova Group would exceed the net assets including proportionate goodwill by 174.4 MEUR.

6.2. Property, plant and equipment

KEUR	Land and buildings	Construction in progress	Plant and machinery	IT equipment	Other property, plant and equipment	Prepayments on fixed assets	Total
Cost							
At Jan. 1, 2018	**204.708**	**22.860**	**331.185**	**20.591**	**8.746**	**814**	**588.903**
Additions	2.594	14.970	21.986	656	237	-	40.442
Disposals of businesses	-	-	-	-89	-23	-	-112
Transfers	-5.718	-10.534	-4.507	-3.696	372	-814	-24.897
Disposals	-1.184	-186	-5.065	-319	-2	-	-6.756
Currency translation	484	10	647	54	23	-	1.218
At Dec. 31, 2018	**200.883**	**27.120**	**344.246**	**17.197**	**9.352**	**-0**	**598.798**
At Jan. 1, 2018	**-86.970**	**-1.322**	**-214.479**	**-16.145**	**-8.357**	**-**	**-327.273**
Depreciation expense	-10.157	-	-25.565	-1.256	-373	-	-37.351
Disposals of businesses	-	-	-	61	21	-	82
Impairment losses	-	-70	-89	-	-	-	-159
Transfers	5.118	-316	16.699	3.692	-312	-	24.881
Disposals	326	90	3.941	263	2	-	4.621
Currency translation	-232	-	-523	-36	-22	-	-814
At Dec. 31, 2018	**-91.915**	**-1.618**	**-220.016**	**-13.421**	**-9.042**	**-**	**-336.012**

KEUR	Land and buildings	Construction in progress	Plant and machinery	IT equipment	Other property, plant and equipment	Prepayments on fixed assets	Total
Cost							
At Jan. 1, 2017	**198.370**	**22.222**	**302.372**	**22.772**	**8.482**	**1.519**	**555.735**
Additions	4.727	17.144	18.635	1.136	334	1.285	43.260
Acquisitions of businesses	-	-	-	-	-	-	-
Transfers	2.330	-14.486	15.029	-1.057	3	-1.987	-168
Disposals	-273	-1.958	-4.556	-2.246	-73	-3	-9.110
Curreny translation	-447	-61	-294	-14	1	-	-815
At Dec. 31, 2017	**204.708**	**22.860**	**331.185**	**20.591**	**8.746**	**814**	**588.903**
At Jan. 1, 2017	**-76.120**	**-635**	**-191.598**	**-17.855**	**-8.084**		**-294.292**
Depreciation expense	-10.674	-46	-24.077	-1.394	-342		-36.534
Acquisitions of businesses	-	-	-	-	-		-
Impairment losses	-22	-641	-820	-	-		-1.483
Transfers	-	-	-1.222	1.222	-0		-0
Disposals	180	-	2.971	1.922	73		5.146
Curreny translation	-333	-	268	-40	-4		-109
At Dec. 31, 2017	**-86.970**	**-1.322**	**-214.479**	**-16.145**	**-8.357**	**-**	**-327.273**
Carrying amount							
At Jan. 1, 2017	**122.249**	**21.586**	**110.774**	**4.917**	**398**	**1.519**	**261.443**
At Dec. 31, 2017	**117.738**	**21.538**	**116.706**	**4.445**	**388**	**814**	**261.630**

Impairment losses of KEUR 159 (2017: KEUR 1,483) were recognized on property, plant and equipment in the fiscal year. As part of the standardization of accounting within the AENOVA Group, transfers of KEUR 24,876 were made within property, plant and equipment in fiscal year 2018. All tangible assets are pledged as collateral to Unicredit Bank, London.

Investments of KEUR 4,672 (2018: KEUR 6,012) have been contractually agreed for the 2019 financial year.

6.3. Other non-current financial assets

KEUR	Dec. 31, 2018	Dec. 31, 2017
Other loans and receivables	557	160
Other Investments	299	299
Non-current loans related parties	757	360
Other non-current financial assets	**1.612**	**818**

In addition to guarantees to customs authorities, other loans and receivables also include guarantees in connection with an investment project. In the previous year, this item mainly included guarantees to the Polish customs authorities. Other investments consist of the shares in Loxxess Pharma GmbH, Wolfratshausen, which is not included in the consolidated financial statements of Apollo 5 GmbH for reasons of materiality, and a long-term loan to a related party.

6.4. Other non-current assets

KEUR	Dec. 31, 2018	Dec. 31, 2017
Prepayments to third party, non-current	563	346
Surplus from offsetting DBO and plan assets for other long-term	-	-
Other non-current assets	2.736	3.115
Other non-current assets	**3.299**	**3.461**

6.5. Inventories

KEUR	Dec. 31, 2018	Dec. 31, 2017
Raw materials and supplies	47.044	56.292
Finished products	3.809	32.086
Semi-finished goods	3.441	20.001
Work in progress	1.589	2.097
Trading goods	410	343
Inventories	**56.294**	**110.820**

Net inventories amounted to KEUR 56,294 at the balance sheet date (2017: KEUR 110,820). The write-downs on gross inventories (e.g. due to write-downs on marketability and quality defects) amount to KEUR 10,140 (2017: KEUR 8,749).

All inventories are pledged as collateral to Unicredit Bank, London.

Inventories amounting to KEUR 292,541 (2017: KEUR 311,636) were expensed in 2018.

In 2017, finished and semi-finished products related to the contract manufacture of pharmaceuticals. By applying IFRS 15, revenues and related costs for these contracts (matching principle) are recognized over a specific period of time (see section 3.6).

6.6. Trade receivables

Eight German production sites have concluded contracts with two factoring banks for silent factoring. The contracts stipulate that certain parts of the trade receivables are sold to third parties. The agreements also stipulate that the del credere risk is transferred to the factoring companies. A certain portion of the receivables sold is retained by the factoring companies to finance the sales deductions and is therefore not refinanced. This amount was recognized as other assets. The existing contractual relationship at three locations is indefinite and can be terminated with six months' notice. The existing contracts at the other five locations were extended in October 2018 to the end of May 2019.

A factoring agreement has also been installed at two Italian locations. The factoring agreement was concluded with a factoring bank. This contract stipulates that certain parts of the trade receivables are sold to third parties. It is also stipulated that the del credere risk is transferred to the factoring company. The contract has an indefinite term and can be terminated at any time.

Factoring agreements were signed with a factoring bank at two locations in Switzerland as at December 31, 2015. The contract was extended from June 2018 to December 2019. The notice period is six months. The contracts stipulate that certain parts of the trade receivables are sold to third parties. The agreements also stipulate that the del credere risk is transferred to the factoring companies. A certain portion of the receivables sold is retained by the factoring companies to finance the sales deductions and is therefore not refinanced.

The purchased receivables of the AENOVA Group amount to KEUR 63,735 (2017: KEUR 81,054).

KEUR	Dec. 31, 2018	Dec. 31, 2017
Trade receivables, gross	45.740	40.575
Individual allowance for doubtful trade receivables	-1.084	-2.476
General allowance for doubtful trade accounts receivables	-2.403	-
Trade receivablesm, net	**42.253**	**38.099**

KEUR	Dec. 31, 2018	Dec. 31, 2017
Individual impaired	1.084	2.476
Not past due nor impaired	23.461	17.266
Past due less than 30 days, not impaired	12.870	15.356
Past due between 31 and 90 days, not impaired	3.118	2.838
Past due more than 90 days, not impaired	5.207	2.640
Trade receivables, gross	**45.740**	**40.575**

The credit and market risks of the AENOVA Group and the impairment of trade receivables are explained in section 4.1

As of December 31, 2018, the individual valuation allowances of KEUR 1,084 (2017: KEUR 2,476) relate to several customers who have indicated that they do not expect to be able to settle the outstanding amounts or have filed for insolvency due to their economic circumstances.

The following tables show the development of individual and general bad debt allowances on trade receivables:

KEUR	Dec. 31, 2018	Dec. 31, 2017
Individual allowance at beginning of period	2.476	1.220
Changes in consolidated companies	-	-13
Other additions	780	2.024
Reversal	-2.151	-472
Use	-68	-227
Currency translation	47	-56
Individual allowance at the end of period	**1.084**	**2.476**

KEUR	Dec. 31, 2018	Dec. 31, 2017
General allowance at beginning of period	-	-
Changes in consolidated companies	-	-
Other additions	2.370	-
Reversal	-	-
Use	-	-
Currency translation	33	-
General allowance at the end of period	**2.403**	**-**

A individual valuation allowance made in 2017 due to non-performing receivables was largely reversed in 2018 as a result of payments received.

Additions to general allowance were made as a result of the first-time application of IFRS 9.

Of the total valuation allowances, KEUR 2,793 relate to financial assets valued at FVOCI. The development of value adjustments in the course of the year was as follows:

KEUR	
Receivables at beginning of period regarding to IAS 39	-
Adjustment due to first implementaiotn of IFRS 9	1.869
Receivables at beginning of period regarding to IFRS 9	**1.869**
Net remeasurement of allowance	924
Allowance at the end of period	**2.793**

6.7. Other current financial assets

KEUR	Dec. 31, 2018	Dec. 31, 2017
Other receivables from third party	9.124	15.269
Short-term loans and advance payments to employees	13	29
Other current financial assets	**9.137**	**15.298**

Other receivables from third parties include receivables from various factoring companies amounting to KEUR 9,124 (2017: KEUR 15,269).

6.8. Other current assets

KEUR	Dec. 31, 2018	Dec. 31, 2017
VAT receivables	6.647	6.293
Prepayments to third party	1.662	1.004
Receivables from social security		
Other current non-financial assets	11.638	7.635
Other current assets	**19.947**	**14.932**

The increase in other current assets is attributable to claims from a purchase contract tax clause.

6.9. Cash and cash equivalents

KEUR	Dec. 31, 2018	Dec. 31, 2017
Cash at bank	49.537	33.230
Cash on hand	33	37
Cash and cash equivalents	**49.571**	**33.268**

Cash and cash equivalents are subject to variable interest rates for balances callable on demand. Short-term deposits are made for different periods of between one day and three months, depending on the Group's immediate cash requirements.

6.10. Equity

For a detailed presentation of changes in equity, please refer to the Consolidated statement of changes in equity.

6.10.1. Subscribed capital

The subscribed capital of Apollo 5 GmbH amounts to KEUR 25 as of December 31, 2018 and is held entirely by Apollo 8 GmbH. The subscribed capital was fully paid up on the balance sheet date. It consists of one share with a nominal value of KEUR 25.

6.10.2. Capital reserves

Capital reserves include reserves from share-based payments. Capital reserves increased from KEUR 6,500 to KEUR 129,410 as of December 31, 2018 (2017: KEUR 122,910) as a result of a contribution to capital reserves.

For further details, please refer to section 11 Share-based Payment.

6.10.3. Other components of equity

The other components of equity comprise:

- Currency differences: The reserve for currency differences arising from differences from the translation of the financial statements of foreign subsidiaries.
- Revaluations of defined benefit obligations: the actuarial gains/losses relate to defined benefit obligations and also include deferred taxes on these. Deferred taxes on actuarial gains/losses recognized in other comprehensive income amount to KEUR 1,768 for 2018 (2017: KEUR 2,112).
- First-time application of IFRS 15 and IFRS 9 in the amount of KEUR 6,834.

6.11. Provisions for pensions and similar obligations

KEUR	Dec. 31, 2018	Dec. 31, 2017
Provisions for defined benefit plans	51.328	52.633
Provisions for additional claims for elderly care Italy	3.022	3.640
Provisions for jubilee and sabbaticals	2.272	2.213
Provision for pensions and other employee benefits	**56.622**	**58.486**

6.11.1. Provisions for defined benefit obligations

The Group has various defined benefit plans in various Group companies, which include various regulations for post-employment benefits. The beneficiaries of these commitments are mainly employees or their surviving dependants in Switzerland, Germany and Ireland. The benefit plans comprise 1,935 (2017: 1,955) beneficiaries, of which 1,141 (2017: 1,165) are active employees, 489 (2017: 502) are former employees with vested benefits and 305 (2017: 288) are pensioners and surviving dependents.

In Germany, there are various benefit plans that give pensioners the right to annual pension payments or a one-off capital payment. One defined-benefit pension plan grants the beneficiaries a certain percentage of the last salary at the start of the pension event upon reaching the age of 65, depending on the pensionable years of service. Under another defined benefit plan, beneficiaries are entitled to benefits upon reaching the age of 65, the amount of which depends on the length of service with the company. In the form of direct commitments, eligible employees are entitled to pension benefits as part of deferred compensation upon reaching the age of 65.

The regulatory framework in Germany is provided by the Company Pensions Act. Accordingly, the pension adjustment obligation for pension commitments is based on inflation expectations unless the commitment provides for a fixed annual adjustment.

In Switzerland, there are various defined contribution plans with guaranteed interest, which provide both statutory and voluntary benefits in the event of retirement. The annual contributions are determined on

The statements are prepared and certified in German. The english version is for translation purpose only.

the basis of salary and paid to a collective foundation. At the time of retirement, the accrued contributions including the yield are converted into a pension by means of conversion factors, which is paid out to the beneficiary. Part or all of the benefits can also be drawn by the insured person in the form of a lump-sum payment. The Board of Trustees of the collective foundation reviews the management and administration of the pension plans organised in the collective foundation and is composed of equal numbers of employer and employee representatives.
The regulatory framework in Switzerland is provided by the Federal Act on Occupational Retirement, Survivors' and Disability Pension Plans (BVG).

The benefit plans in Ireland are closed for new entrants. The benefit at the start of the pension, which is paid in the form of a pension, depends on the final salary and length of service. The legal framework is provided by the Pensions Act. The pension plans are subject to a minimum endowment, which is set and monitored by the pension supervisory authority.

The amounts recognised in the balance sheet as at December 31, 2018 are as follows:

KEUR	Dec. 31, 2018	Dec. 31, 2017
Fair value of plan assets	**55.118**	**52.378**
Switzerland	*28.784*	*26.780*
Ireland	*14.035*	*13.874*
Germany	*12.299*	*11.724*
Present value of DBO	**106.447**	**105.011**
Switzerland	*39.733*	*38.418*
Ireland	*15.018*	*14.737*
Germany	*51.696*	*51.856*
Net liability	**51.329**	**52.633**

The following table shows the reconciliation of the opening balance to the closing balance for the net liability from defined benefit obligations and their components:

KEUR	Present value of obligation		Fair value of plan asset		Net debt	
	2018	2017	2018	2017	2018	2017
At January 1	105.011	111.975	52.378	54.774	52.633	57.201
Acquisition of business	-	-	-	-	-	-
Profit and loss						
Current service cost	2.668	2.424	-	-	2.668	2.424
Past service cost	-	-972	-	-	-	-972
Interest income/ expense	1.561	1.456	697	615	864	841
Administrative expenses	-	-	-125	-137	125	137
	4.229	2.908	572	478	3.657	2.430
Other comprehensive income						
Return on plan asset, exluding amounts included in interest expense / income	-	-	-748	161	748	-161
Actuarial gains / losses from						
- change in demographic assumptions	20	-	-	-	20	-
- change in financial assumptions	-791	-2.257	-	-	-791	-2.257
- experience	-1.571	367	-	-	-1.571	367
	-2.342	-1.890	-748	161	-1.594	-2.051
Other						
Exchange differences	1.472	-3.506	1.052	-2.448	420	-1.057
Contributions (Employer)	-	-	2.631	2.871	-2.631	-2.872
Contributions (Employee)	1.419	1.567	1.419	1.567	-	-
Benefit payments	-3.739	-6.043	-2.581	-5.025	-1.158	-1.018
Effects from Transfers	397	-	397	-	-	-
	-451	-7.982	2.917	-3.035	-3.369	-4.947
At December 31	**106.447**	**105.011**	**55.118**	**52.378**	**51.329**	**52.633**

The weighted average term of the defined benefit obligation as of December 31, 2018 is 14 years (previous year: 15 years).

As of December 31, 2018, KEUR 36,241 (2017: KEUR 37,101) of the present value of the defined benefit obligation relates to plans that are not funded through plan assets and KEUR 70,206 (2017: KEUR 67,910) of the present value of the defined benefit obligation relates to plans that are fully or partially funded through plan assets.

The plan assets held by the collective foundation in Switzerland consist exclusively of credit balances from insurance contracts with a life insurance company. Plan assets in Ireland are managed by a pension trust which is legally independent and is mainly invested in equities and bonds. The plan assets in Germany consist of reinsurance policies taken out to secure the commitments and assets paid into a pension fund. The fair value of plan assets comprises the following categories of assets:

	Dec. 31, 2018	Dec. 31, 2017
Equity instruments	7%	10%
Debt instruments	10%	10%
Property	2%	2%
Liability insurance Germany	22%	22%
Liability Insurance Switzerland	52%	51%
Other assets	7%	5%
Total	**100%**	**100%**

All equity and debt instruments as well as real estate and other assets are quoted at market prices in active markets.

The expected employer contributions for 2019 are expected to amount to KEUR 2,704.

The weighted average of the underlying actuarial assumptions per country can be presented as follows:

	December 31, 2018			December 31, 2017		
	Switzerland	Germany	Ireland	Switzerland	Germany	Ireland
Discount rate	0,85%	2,00%	2,00%	0,65%	2,00%	2,00%
Salary increase	2,00%	1,00%	2,00%	2,00%	1,00%	2,00%
Pension increase	0,00%	1,30%	0,00%	0,00%	1,30%	0,00%

In Germany, the Heubeck Richttafel 2018G was used as the biometric basis for calculation, in Switzerland the BVG2015 GT and in Ireland the ILT15.

An increase or decrease in the key actuarial assumptions by 0.25 percentage points would have the following effects on the present value of the pension obligations as of December 31, 2018:

	Impact on defined benefit obligation 2018		Impact on defined benefit obligation 2017	
Change in assumption	**0,25%**	**-0,25%**	**0,25%**	**-0,25%**
Discount rate	-3,3%	3,5%	-3,4%	3,7%
Salary growth rate	0,5%	-0,5%	0,5%	-0,5%
Pensions growth rate	1,3%	-0,6%	1,8%	-1,1%

If life expectancy were to change by +1 year, the obligation from defined benefit plans would increase by 2.3% (2017: 1.2%); if life expectancy were to change by -1 year, the obligation would decrease by 2.6% (2017: 1.2%).

The sensitivity analyses are based on the change in an actuarial assumption while all other assumptions remain constant. The sensitivities were determined in the same way as the DBO as of December 31, 2018. If several assumptions change simultaneously, the resulting effect does not necessarily have to correspond to the sum of the individual effects. The effects of the individual changes in assumptions are not linear.

6.11.2. Provisions for additional pension claims Italy

The provisions for additional pension claims Italy include provisions in connection with the "Trattamento di fine rapporto" at two companies in Italy. This is a statutory obligation for companies in Italy under which employees are entitled to severance pay upon termination of employment.

6.11.3. Provisions for service anniversaries and sabbaticals

Employees of individual subsidiaries in Switzerland and Germany are entitled to anniversary bonuses and sabbaticals. Provisions were calculated in accordance with IAS 19 using the projected unit credit method. The same mortality tables as for the pension commitments were used as biometric calculation bases. The present value of obligations from service anniversaries and sabbaticals amounted to KEUR 2,272 as of December 31, 2018 (2017: KEUR 2,213). The applicable weighted discount rate in 2018 was 1.7 % (2017: 2.0 %).

6.12. Other provisions and accrued liabilities

KEUR	Dec. 31, 2018		Dec. 31, 2017	
	current	non-current	current	non-current
Warranty provisions	1.699	-	4.101	-
Provisions for legal claims	342	-	595	-
Restructuring provisions	713	2.482	2.386	3.131
Provision for customer bonus	919	-	1.272	-
Other provisions	5.651	10.444	9.159	6.385
Other current & non-current provisions	**9.324**	**12.927**	**17.513**	**9.516**

6.12.1. Other current provisions

KEUR	Warranty Provisions	Provisions for legal claims	Restructur-ing Provisons	Provision for customer bonus	Other provisions
At Jan. 1, 2018	**4.101**	**595**	**2.386**	**1.272**	**9.160**
Acquisition of businesses	-69	-	-	-46	-
Additions	1.341	-	-	1.568	4.808
Use	-3.230	-266	-2.058	-1.804	-7.243
Release	-493	-	-166	-95	-1.111
Transfers	-	-	349	-	-
Currency translation	49	13	202	24	39
At Dec. 31, 2018	**1.699**	**342**	**713**	**919**	**5.652**

6.12.2. Other long-term provisions

KEUR	Restructur-ing provisions	Other provisions
At Jan. 1, 2018	**3.131**	**6.385**
Acquisition of businesses	-	-
Additions	-	4.220
Use	-300	-83
Release	-	-81
Transfers	-349	3
Currency translation	0	-0
At Dec. 31, 2018	**2.482**	**10.444**

All provisions are based, among other things, on discretionary scope, assumptions, past experience and estimates that are subject to certain uncertainties (with regard to the amount and timing of utilization). The valuation and accounting of the individual provisions are based on estimates made by management on the basis of past experience.

6.12.3. Warranty provisions

The provision is calculated both on the basis of historical experience and on the basis of expectations regarding the future failure of the products sold within the warranty period. Provisions for warranties relate primarily to products sold in fiscal years 2017 and especially 2018. The Group expects the majority of the provisions to be settled in 2019. The year-on-year reduction is mainly attributable to payments made to customers and to reversals after settlement.

6.12.4. Provisions for litigation costs

The provision for litigation costs of KEUR 342 (2017: KEUR 595) mainly relates to risks in connection with ongoing legal cases. The legal cases mainly arose in 2017 and 2018. The Group expects to utilize the majority of the provisions in 2019.

6.12.5. Provision for restructuring

Restructuring provisions of KEUR 3,195 (2017: KEUR 5,517) mainly relate to expenses in connection with the closure of the Muttenz site (KEUR 2,930). The payments, which were determined both within the framework of social plans and within the framework of individual agreements, will be paid out in 2019 to 2024.

6.12.6. Provision for customer bonuses

Provisions for customer bonuses relate to outstanding invoices for customer commission in the amount of KEUR 919 (2017: KEUR 1,272), which will be utilized in 2019.

6.12.7. Other provisions and accrued liabilities

Current other provisions of KEUR 5,651 (2017: KEUR 9,160) include provisions for earn-out payments from the purchase of Haupt Pharma AG, existing onerous contracts, follow-up costs and outstanding fees. The decrease in other provisions by KEUR 3,509 is primarily due to the earn-out payments already made in the year under review.

The non-current other provisions of KEUR 10,444 (2017: KEUR 6,385) mainly relate to earn-out payments from the purchase of Haupt Pharma AG, severance payments and provisions for existing onerous contracts.

6.13. Financial liabilities

6.13.1. Long-term financial liabilities

KEUR	Dec. 31, 2018	Dec. 31, 2017
Non-current bank loans	643.254	635.717
Non-current shareholder loans	207.672	209.172
Non-current leasing liabilities	32.087	31.359
Non-current accrued liabilities	80.026	61.201
Non-current financial liabilities	**963.039**	**937.449**

Non-current accruals relate entirely to accrued interest for shareholder loans.

6.13.2. Other long-term liabilities

KEUR	Dec. 31, 2018	Dec. 31, 2017
Other non-current liabilities	10.421	7.625
Other non-current liabilities	**10.421**	**7.625**

Other non-current liabilities include liabilities due to investment grants from customers.

6.13.3. Current financial liabilities

KEUR	Dec. 31, 2018	Dec. 31, 2017
Current bank loans	16.714	48.730
Current accrued liabilities	13.623	9.434
Current leasing liabilities	4.411	5.721
Current financial liabilities	**34.748**	**63.886**

6.13.4. Loan liabilities

UniCredit Bank AG, London, acts as agent for the senior first lien loan and as security agent for the senior second lien loan. Deutsche Bank AG acts as the agent of the loan under the senior second lien. The loans are now fully syndicated.

As of December 31, 2018, the Group had the following loan liabilities:

KEUR	Year of maturity	Nominal value as of Dec 31, 2018	Book value as of Dec 31, 2018	Nominal value as of Dec 31, 2017	Book value as of Dec 31, 2017
1st Lien	2020	500.000	498.715	500.000	498.047
2nd Lien	2021	139.040	138.114	139.040	137.670
Revolving Credit Facility	2020	15.000	15.000	47.500	47.500
Other	various	8.139	8.139	1.230	1.230
Total		**662.179**	**659.968**	**687.770**	**684.447**

The 1st Lien loan has a nominal amount of KEUR 500,000 at a base rate of 4% plus EURIBOR on the reporting date. If the EURIBOR falls below 1%, 1% is applied. The final termination date of the bullet loan is 29 September 2020.

The 2nd Lien loan has a nominal amount of KEUR 139,040 at the reporting date with a base interest rate of 7.5% plus EURIBOR. If the EURIBOR falls below 1%, 1% is applied. The final termination date of the bullet loan is 29 September 2021.

The credit line of the revolving credit facility amounts to KEUR 50,000. As of December 31, 2018, KEUR 15,000 of this amount had been called. In addition, KEUR 2,500 (previous year: KEUR 2,500) are reserved for guarantees. The term of the loan extends until September 29, 2020. The revolving loan bears interest at EURIBOR plus a base interest rate of 3.75%.

The difference between the nominal amounts and the carrying amounts results from the application of the effective interest method in accordance with IFRS 9. Loans are initially measured at fair value less directly attributable transaction costs. Transaction costs are amortized as interest expense over the term using the effective interest method and increase the carrying amount of the liability.

In order to secure the claims of the banks, material assets are pledged within the framework of company-specific security agreements. AENOVA is obliged to send inventory lists of the pledged assets to Unicredit Bank, which manages these claims, at regular intervals. Assets pledged as collateral include certain business interests, bank account balances, receivables assigned in a global assignment, inventories, movable assets and certain intangible assets related to patents and trademarks.

As of December 31, 2018, the following financial assets were pledged as collateral (carrying amounts):

KEUR	Dec. 31, 2018	Dec. 31, 2017
Cash and cash equivalents	49.571	33.268
Trade receivables, other receivables and other assets	71.528	78.675
Movable fixed assets (including inventory)	215.023	258.992
Patents, licenses, intellectual property	104.494	150.870
Total	**440.616**	**521.805**

6.14. Other current liabilities

KEUR	Dec. 31, 2018	Dec. 31, 2017
Accrued liabilities for personnel expenses	16.648	17.117
Liabilities social security	2.083	2.389
Prepayments from third parties	6.711	5.620
VAT payables	86	385
Other	3.700	11.918
Other current liabilities	**29.228**	**37.430**

7. Information on leases

Future minimum lease payments under non-cancellable operating leases are as follows:

KEUR	Dec. 31, 2018	Dec. 31, 2017
Future minimum lease payments		
Due within 1 year	6.748	4.974
Due between 1 and 5 years	16.414	16.445
Due later than 5 years	6.833	9.418
Total	**29.996**	**30.837**

The Group is the lessee of office and business equipment and motor vehicles under operating leases. Lease payments recognized as expenses under operating leases totaled KEUR 7,980 in the fiscal year (2017: KEUR 9,401). The major part of the payments is for rent of buildings and land.

The Group is the lessee of buildings, production facilities and other machinery under finance leases. As of December 31, 2018, the net carrying amount of the leased assets reported under buildings and land and under plant and machinery amounted to KEUR 37,562 (2017: KEUR 41,652).

The future minimum lease payments under finance leases and their present values are shown in the following table:

KEUR	Dec. 31, 2018	Dec. 31, 2017
Due within 1 year		
Future minimum lease payments	7.463	9.048
Interest	-3.052	-3.327
Present value of minimum lease payments	4.411	5.721
Due between 1 and 5 years		
Future minimum lease payments	23.379	21.172
Interest	-9.044	-10.010
Present value of minimum lease payments	14.335	11.161
Due later than 5 years		
Future minimum lease payments	22.925	26.834
Interest	-5.173	-6.637
Present value of minimum lease payments	17.752	20.197
Total		
Future minimum lease payments	53.767	57.055
Interest	-17.269	-19.975
Present value of minimum lease payments	36.497	37.080

The contracts do not contain any purchase options. Extension options are available for various property and building lease agreements.

As a lessor, the Group leases commercial real estate under operating leases. The future minimum rental income from non-cancellable operating leases amounted to

KEUR	Dec. 31, 2018	Dec. 31, 2017
Future minimum lease payments		
Due within 1 year	323	370
Due between 1 and 5 years	1.062	1.069
Due later than 5 years	1.051	1.101
Total	**2.437**	**2.540**

This figure does not include any variable rental components.

8. Additional disclosures on financial instruments

The net result from financial instruments is as follows:

KEUR	Dec. 31, 2018	Dec. 31, 2017
Receivables at amortised cost (AC)	692	-1.747
Financial instruments measured at amortised cost (FLAC)	-65.699	-63.447
Net result from financial instruments	**-65.007**	**-65.194**

The result from loans and receivables of KEUR -692 (in 2017: KEUR -1,747) includes write-downs and reversals of write-downs on receivables.

The result from financial liabilities measured at amortized cost mainly includes interest expenses for bank loans of KEUR 39,006 (2017: KEUR 40,766), interest expenses for shareholder loans of KEUR 18,826 (2017: KEUR 18,826) and interest expenses for bank loans measured using the effective interest method of KEUR 1,116 (2017: KEUR 1,002). Interest income of KEUR 3,829 (2017: KEUR 69,6) was received.

The following table shows the carrying amount and fair value of the financial instruments included in the individual balance sheet items by class and by measurement category:

			Amounts recognised in balance sheet according to IFRS 9					Fair value hierarchy level for financial instruments		
KEUR	Category in accordance with IFRS 9	**Carrying amount Dec. 31, 2018**	At amortised cost (AC) Financial Assets at amortised cost	FVOCI debt instruments	OL Other financial liabilities	Amounts recognised according to IAS 17	**Fair value Dec. 31, 2018**	**Level 1**	**Level 2**	**Level 3**
Financial assets										
Other non-current financial assets	AC	1.612	1.612	-		-	1.612	-	-	-
Trade receivables	AC/FVOCI	82.527	4.399	78.128		-	82.527	-	-	-
Other current financial assets	AC	13	13	-		-	13	-	-	-
Factoring Receivables	FVOCI	9.124		9.124		-	9.124	-	-	-
Cash and cash equivalents	AC	49.571	49.571	-		-	49.571	49.571	-	-
Financial liabilities										
Non-current liabilities to banks	OL	643.254	643.254	-		-	651.691	-	651.691	-
Non-current liabilities to related parties	OL	207.672	207.672	-		-	268.754	-	268.754	-
Non-current accrued interests to related parties	OL	80.026	80.026	-		-	80.026	-	-	-
Non-current leasing liabilities	n.a.	32.087	-	-		32.087	32.087	-	-	-
Trade payables	OL	53.746	53.746	-		-		-	-	-
Current liabilities to banks	OL	16.714	16.714	-		-	16.714	-	-	-
Current leasing liabilities	n.a.	4.411	-	-		4.411	4.411	-	-	-
Other current financial liabilities	OL	-	-	-		-	-	-	-	-
Current accrued liabilities	OL	13.623	13.623	-		-	13.623	-	-	-
Financial assets		142.847	55.595	87.252		-	142.847	49.571	-	-
Financial liabilities		1.051.533	1.015.036	-	-	36.497	1.067.306	-	920.445	-

			Amounts recognised in			Fair value hierarchy level for financial		
KEUR	Category in accordance with IAS 39	**Carrying amount Dec. 31, 2017**	Amortised cost	Fair value recognised in equity	**Fair value Dec. 31, 2017**	**Level 1**	**Level 2**	**Level 3**
Financial assets								
Other non-current financial assets	L&R	818	818	-	818	-	-	-
Trade receivables	L&R	38.099	38.099	-	38.099	-	-	-
Other current financial assets	L&R	15.298	15.298	-	15.298	-	-	-
Cash and cash equivalents	L&R	33.268	33.268	-	33.268	33.268	-	-
Financial liabilities						-	-	-
Non-current liabilities to banks	FLAC	635.717	635.717	-	633.306	-	626.806	-
Non-current liabilities to related parties	FLAC	209.172	209.172	-	361.345	-	353.121	-
Non-current accrued interests to related parties	FLAC	61.201	61.201	-	61.201			
Non-current leasing liabilities	n.a.	31.359	-	-	31.359	-		
Other non-current financial liabilities	FLAC		-	-		-	-	-
Trade payables	FLAC	72.669	72.669	-	72.669	-	-	-
Current liabilities to banks	FLAC	48.730	48.730	-	48.730	-		
Current leasing liabilities	n.a.	5.721	-	-	5.721	-	-	-
Current derivative instruments without hedging relationship	HfT	-	-	-	-		-	-
Other current financial liabilities	FLAC	-	-	-		-	-	-
Current accrued liabilities	FLAC	9.434	9.434	-	9.434	-		-
Aggregated by category in accordance with IAS 39								
Loans and receivables (L&R)		87.484	87.484	-	87.484	33.268	-	-
Financial instruments measured at amortised cost (FLAC)		1.036.923	1.036.923	-	1.192.407	-	979.927	-
Financial instruments held for trading (HfT)		-	-	-	-	-	-	-

There are no netting transactions, and since the derivatives were concluded with different counterparties, no global netting agreements have any effect here either.

Due to the short maturities of cash and cash equivalents, trade receivables and payables as well as other current receivables and assets and other current liabilities, it is assumed for these items that the fair values correspond to the carrying amounts.

The fair values of non-current financial instruments are determined as the present values of expected future cash flows. Market interest rates based on the corresponding maturities are used for discounting. To determine the fair values for trade receivables (FVOCI) and receivables due from factor, it is assumed that the fair value corresponds to the nominal volume.

In determining the fair value of an asset or liability, the Group uses observable market data as far as possible. Based on the input factors used in the valuation techniques, the fair values are assigned to different levels in the fair value hierarchy:

- **Level 1:** Quoted prices (unadjusted) in active markets for identical assets and liabilities
- **Level 2:** Valuation parameters other than quoted prices included in level 1 but observable for the asset or liability either directly (as a price) or indirectly (as a derivation of prices)
- **Level 3:** Valuation parameters for assets or liabilities that are not based on observable market data

No reclassifications were made between the individual levels in the past financial year. If necessary, a reclassification is made at the end of the reporting period.

9. Contingent liabilities

As of December 31, 2018, AENOVA was exposed to liability risks from guarantees in the amount of KEUR 3,121 (2017: KEUR 2,921). Utilization is considered possible, but not probable, and is therefore not recognized as a provision. Estimates of the expected amount or timing of a claim are not possible. There is also a latent risk that not all past obligations for pensions and similar obligations have been recognized. A sufficiently reliable estimate of the likelihood of occurrence and the amount of any existing obligations is not possible.

10. Transactions with related parties and persons

According to IAS 24, related parties are companies and persons that directly or indirectly exercise control over the company or have the possibility to exercise significant influence over the company.

10.1. Parent company and ultimate parent company

The parent company of Apollo 5 GmbH is Apollo 8 GmbH. Apollo 8 GmbH is entered in the Commercial Register of the Munich Local Court under HRB 200075. The sole shareholder of Apollo 8 GmbH is Apollo 11 S.á r.l., Luxembourg.

Apollo 5 GmbH has five loans from Apollo 11 Holding S.á. r.l. in the form of subordinated loans with deferred interest payments. The loans originally amounted to KEUR 261,152 and were taken out in connection with the acquisition of the operating division of Aenova Group GmbH (formerly Aenova Holding GmbH) and are due in 2022 and 2023. The nominal value amounted to KEUR 207,672 as of December 31, 2018 (2017: KEUR 209,172). In 2018, accrued interest expense amounted to KEUR 18,826 (2017: KEUR 18,826). Accrued interest totalled KEUR 80,026 (2017: KEUR 61,201).

The shareholder loans are based on an effective interest rate of 9%. Interest is deferred as part of the carrying amount until redemption.

BC Partner GmbH Beteiligungsberatung received a management fee of KEUR 200 in 2018 (2017: KEUR 200). As of December 31, 2018, the outstanding invoices amounted to KEUR 0 (2017: KEUR 0).

10.2. Key management personnel of the company

The management of Apollo 5 GmbH and the Advisory Board of AENOVA Holding GmbH, as members of the top management and supervisory level of the AENOVA Group in accordance with IAS 24, are related parties.

Executive board 2018	
Dr. Mohammad Naraghi	Managing Director of Apollo 5 GmbH (until September 14, 2018)
Michael Wunderlich	Managing Director of Apollo 5 GmbH (until September 12, 2018)
Stefan Zuschke	Managing Director of Apollo 5 GmbH (since August 2, 2018)
Ralf Schuler	Managing Director of Apollo 5 GmbH (since September 25, 2018)

Executive board 2017	
Dr. Markus Böning	Managing Director of Apollo 5 GmbH (until June 30, 2017)
Dr. Mohammad Naraghi	Managing Director of Apollo 5 GmbH (since June 22, 2017)
Michael Wunderlich	Managing Director of Apollo 5 GmbH

Advisory board 2018	
Dr. Ewald Walgenbach	Chairman of the advisory board
Stefan Zuschke	Member of the advisory board (until August 1, 2018)
Jan Kengelbach	Member of the advisory board (inactive since December 19, 2017)
Moritz Elfers	Member of the advisory board
Maximilian Kastka	Member of the advisory board
Otto Prange	Member of the advisory board
Advisory board 2017	
Dr. Ewald Walgenbach	Chairman of the advisory board (since October 5, 2017; Member since February 21, 2017)
Stefan Zuschke	Member of the advisory board (Chairman until October 5, 2017)
Jan Kengelbach	Member of the advisory board (inactive since December 19, 2017)
Moritz Elfers	Member of the advisory board
Maximilian Kastka	Member of the advisory board
Otto Prange	Member of the advisory board

The total remuneration for management in 2018 of KEUR 1,463 relates in full to fixed and variable short-term benefits (2017: KEUR 2,361), of which KEUR 15 relates to expenses for pensions (2017: KEUR 90) and KEUR 666 to severance payments and waiting allowance.

Some members of the management receive payments of KEUR 433 in connection with the termination of employment.

The members of the Advisory Board of Apollo 5 GmbH received remuneration as compensation for their time and effort in connection with their activities as members of the Advisory Board and for their consulting services. The remuneration of the members of the Advisory Board was entirely attributable to short-term services and amounted to KEUR 71 in the fiscal year (2017: KEUR 119).

An earn-out agreement exists with a company of a related party. The provision recognized at year-end amounts to KEUR 7,531 (see section 6.12.7). The earn-out payments made in the year under review amounted to KEUR 3,069.

10.3. Other related parties and persons

Other related parties are close relatives of persons in key positions and companies controlled by or having significant influence over other related parties. Companies that exercise control or significant influence over related parties are also considered related parties.

In fiscal year 2018, AENOVA sold goods and services in the amount of KEUR 11,774 to companies and acquired goods and services in the amount of KEUR 4,855 from companies controlled by persons in key positions or over which it exercises significant influence. Related parties provided consulting services of KEUR 490 (2017: KEUR 200). As of the balance sheet date, there were outstanding receivables from related parties in the amount of KEUR 11,328 and outstanding liabilities in the amount of KEUR 273. There were no more liabilities from finance leases with related parties as of the balance sheet date. Interest expenses in the amount of KEUR 1,488 were recognized in fiscal year 2018.

11. Share-based payments

The managing directors and selected managers (executives) of the AENOVA Group hold 0.98% of the shares in Apollo 11 S.à.r.l. as at December 31, 2018 via a Management KG. The Management KG holds 3.92% of the shares in Apollo 11 S.a.r.l., which in turn holds all shares in the AENOVA Group. The shares are granted by Apollo Warehouse S.à.r.l., the founding limited partner of Management KG, as the fulfilling company.

It is a share-based payment settled in equity instruments, as the entity grants shares to managers at an agreed price. These transactions are measured at fair value at the grant date. Since the receiving company (Apollo 5 GmbH) has no obligation to fulfill the obligation, the compensation is accounted for as equity-settled in the capital reserve as a shareholder contribution.

The purchase price of the shares is derived from the fair value of the shares at the time of issue.

An exit bonus is generally granted if the amount of exit proceeds exceeds an agreed minimum threshold. The exit can take place either through an IPO or a sale of the AENOVA Group.

The amount of the compensation depends on the amount of the exit proceeds less related costs, as well as the amount of the participation of the respective beneficiary. The fair value was measured using various assumptions and an option pricing model. Specific exit clauses apply in the event of premature departure of an employee. It defines the criteria for the formation of a claim and the amount of the exit bonus. The duration of the management programme is four years.

The valuation of the granting of the benefit is based on a company valuation of the Apollo Group, which is based on the corporate planning approved by the management for the period 2019 - 2021. The evaluation of the exit bonus was based on a Monte Carlo simulation.

At the beginning of 2018, the management program was modified by lowering the multipliers that determine the threshold and the amount of the exit bonus. As a result, the fair value of the shares increased.

For KG shares subscribed to in previous years by employees of the Apollo 5 Group and the associated granting of benefits, KEUR 0 (2017: KEUR 145) was recorded under personnel expenses and in the same amount as an increase in capital reserves. No new shares (2017: KEUR 6) were issued in Apollo 11 in the fiscal year.

12. Auditors' fees and services

The following table provides an overview of the auditor's fees and services:

KEUR	**Jan. 1 - Dec. 31, 2018**	**Jan. 1 - Dec. 31, 2017**
Auditing services	624	502
thereof from the previous year	138	52

13. Events after the balance sheet date

In the period from December 31, 2018 to the publication of the consolidated financial statements, no events occurred that would have a material impact on these financial statements.

Starnberg, April 12, 2019

Ralf Schuler	Stefan Zuschke
Apollo 5 GmbH Managing Director	Apollo 5 GmbH Managing Director

GROUP MANAGEMENT REPORT

1 Group Setup

The AENOVA Group (hereinafter referred to as "AENOVA" or the "AENOVA Group") comprises Apollo 5 GmbH, Starnberg, as the parent company, and 32 subsidiaries, of which 16 are production sites. The parent company is managed by two managing directors. These consolidated financial statements cover the period from 1 January 2018 to 31 December 2018.

Apollo 5 GmbH emerged from a shelf company established on 28 June 2012 and commenced operations on 23 July 2012 under new articles of association. The parent/subsidiary relationship arose for the first time with the contribution of the shares in Aenova Holding GmbH, Starnberg, with effect from 27 September 2012. Aenova Holding GmbH in turn is a shareholder of the Swiss Caps Group and Dragenopharm. In 2012, Aenova Holding GmbH acquired the Temmler Group and Euro Vital Pharma GmbH, Hamburg. In 2013 and 2014, respectively, the acquisitions of the Haupt Pharma Group, Contract Packaging Resources Inc. Greensboro (USA) and the establishment of Aenova Asia-Pacific Ltd, Singapore, which was consolidated for the first time in the 2016 financial year, followed. In 2015, IIP GmbH, Aschaffenburg was acquired and merged into a Group company in 2018. Euro Vital Pharma GmbH was sold in 2018.

1.1 Business model of the Group

The AENOVA Group is one of the world's largest pharmaceutical contract manufacturers. In Europe, the company is the market leader for the development, manufacture and marketing of pharmaceuticals and dietary supplements. AENOVA operates a total of 16 production sites in six countries. The Group is represented in eight European countries, Asia and the USA. The AENOVA Group is based in Starnberg near Munich. Approximately 4,300 employees contribute to the success of the group.

The range of services covers the entire value chain of the development and manufacture of all common dosage forms and product groups for pharmaceuticals and dietary supplements. Among other things, this includes

- **Solida** like tablets, hard capsules, effervescents
- **Semi-solids and liquids** such as ointments, gels and creams, suppositories and sterile and non-sterile liquids such as tinctures, drops and injectables.
- **soft gelatine capsules**

This also includes special highly potent agents such as hormones and cytostatic drugs.

AENOVA is a B2B (business to business) service provider with decades of experience and competence in the pharmaceutical and healthcare sector. The range of products and services is used by originators (developers of patented products), generic companies and suppliers of dietary supplements and veterinary products.

The Aenova Group is one of the few companies that can offer its customers a complete service from a single source. This includes

- Drug development (process and product development, especially formulation)
- Regulatory Services
- Analytical Services

- Further service & support and global tech transfer
- Contract Manufacturing
- Packaging
- Clinical Trial Services (production and special logistics handling for clinical studies)
- Logistics
- Purchasing, validation of raw materials and active ingredients (APIs)
- Supply chain management

The core activities of the group of companies comprise:

- Business Development & Innovation - innovative product ideas, concept and product development, formulation and analysis development, pharmacotherapy, shelf life testing, regulatory support and regulatory approvals
- Contract manufacturing of tablets, film-coated tablets and coated tablets, effervescent products, hard capsules, soft gelatine capsules, VegaGels® (gelatine-free soft capsules), creams and ointments, suppositories and liquid dosage forms
- Contract packaging - blisters, sleeves, bottles, sachets, cartons, labels, folding boxes, brochures and package inserts
- Quality management - Production control and packaging according to international standards (e.g. cGMP or HACCP) as well as control and release of raw materials and finished products
- Clinical Trials - bulk manufacturing and procurement of testing materials, primary packaging, blinding and secondary packaging, labelling, controlled storage, distribution, quality planning, quality control and release, project management
- Supply Chain Management - control and planning process, procurement, storage
- Analysis - testing of Active Pharmaceutical Materials (APIs), excipients and finished products, shelf life testing, development and validation of methods, method transfer, EU approval and
- Sales, customer service and consulting - sales of AENOVA products/technologies and contract manufacturing capacities, license management, technical consulting and support in relation to processes, products, formulation, registrations and communications, formulation proposals and creation of company trademarks.

1.2 Goals and Strategies

The global healthcare market will continue to grow steadily in the coming years. The reasons for this include growing health awareness, demographic change and an ageing population in industrialised countries, as well as growing prosperity in emerging markets.

In addition, it is to be expected that there will be a further outsourcing trend and further consolidation of production capacities in the coming years. AENOVA will benefit from this environment as a CDMO (contract development and manufacturing organization), i.e. as a service provider for the development and manufacture of pharmaceutical and consumer healthcare (CHC) products.

As part of the corporate strategy, the 'Made in Europe' seal of quality and the Group's long-term experience are positioned as differentiating features. Three points form the value proposition of the AENOVA Group

1) Highest quality of all products and services
2) Highest delivery reliability and excellent service
3) Sustainable cost competitiveness

The AENOVA Group has set two priorities for the implementation of its strategy:

1) Establishment of four Business Units (BUs) as a basis for setting uniform Group-wide standards in the areas of operational excellence and customer service. To this end, the plants are divided into three manufacturing business units along the relevant dosage forms, supported by development and licensing activities:
    - BU Solids
    - BU Semi solids & liquids
    - BU Soft-gel capsules
    - BU Development services und Intellectual property

    This concept was adopted in the fourth quarter of 2017 and is now gradually being implemented.

2) A group-wide transformation along the value chain. Several individual projects will drive further transformative improvements, e.g. in the areas of Footprint, Finance and IT as well as Commercial Excellence.

Based on this value proposition, growth is seen in the following areas, among others:

- Solid dosage forms (solids): expansion of capacities and portfolio for human and veterinary pharmaceuticals and CHC through broad technologies and strategic partnerships
- Semi-solid and liquid dosage forms (Semi-Solida and Liquida): focus on special technologies, e.g. intramammary syringe
- Soft gelatine capsules (soft gel capsules): Expansion of capacities (Cornu plant) and participation in the trend towards dietary supplements
- Development services and own Intellectual Property (IP): growth in development services with high-quality product segments, which also form a pipeline for future production, and strengthening of Aenova IP

1.2.1 Pharmaceuticals: Generics, OTC

AENOVA can offer both originator and generic products, both prescription and over-the-counter (OTC).

The research-based pharmaceutical companies are increasingly focusing on their core competencies of innovative research and development as well as marketing and sales. Production is increasingly regarded as not strategically important by research-based pharmaceutical companies, especially after the patents have expired. AENOVA is a competent partner here, especially since the large pharmaceutical companies are also increasingly focusing on manufacturing costs. With increasing cost pressure, outsourcing measures to CDMOs are becoming more and more important.

The generics industry, on the other hand, continues to be characterized by growing volumes, but also by price pressure in the commodity segment. Large companies will outsource large parts of this segment and focus on differentiated products and services.

AENOVA's strategy in this segment is to grow via the market, among other things through

- Focus on core customers and increase ofshare of wallet, e.g. by covering wider product ranges or additional services
- Acquisition of new strategic customers with special technologies
- Focus on Life Cycle Management

1.2.2 CHC

This segment is driven by the trend towards more conscious nutrition and supplementary nutrition.

AENOVA can offer its customers a very wide range of capsule sizes and seam technologies as well as extensive experience in the processing of active ingredients. Due to this advantage, AENOVA plans to grow strongly in soft gelatine capsules and technology experience in this segment. AENOVA will focus on high-quality VMS (vitamins, minerals, supplements) such as special natural extracts. The plant expansion in Cornu will substantially increase capacity.

1.2.3 Animal health

In this segment, AENOVA is aiming for market leadership in antibiotics and plans to expand this further, e.g. with injectables and antiparasitic agents.

Major global veterinary companies have focused on Research & Development and Marketing & Sales. AENOVA relies on long-term partnerships here and will continue to grow, especially with the largest players in this segment.

In Europe, smaller, regional companies complement the customer spectrum. Customers in the USA and the Asia-Pacific region are served opportunistically or with special technologies.

1.3 Research and Development

AENOVA Development Services provides development services for various dosage forms of pharmaceutical products on behalf of customers. The development services comprise all areas of product development, i.e. formulation and process development, analytical method development and drug approval. AENOVA covers a broad portfolio with the development of soft gelatine capsules, solid dosage forms (incl. high-potent APIs and hormones) as well as semi-solid and liquid dosage forms.

Development Services is thus contributing to the establishment of a product pipeline for AENOVA´s contract manufacturing business. With the services in the Development Services division, new products, both with new active ingredients (New Chemical Entity) as well as with already established or generic active ingredients, are won for AENOVA even before the market launch. Early cooperation with customers opens up the potential to tie production to the Group in the long term on a commercial scale and to establish new products in the plants of the manufacturing business units.

In 2018, AENOVA handled almost 70 development projects in various phases on behalf of customers.

The AENOVA Group carries out various development activities for customers. Of the MEUR 7.7 total expenditure for the development of drugs, no development costs were capitalized as intangible assets in the year under review (previous year: total MEUR 11.8, of which KEUR 26 was capitalized).

At the end of the 2018 financial year, a total of 72 employees (previous year: 82 employees) worked in the Development Services division at various locations. The decline compared with the previous year is mainly due to the fact that positions that had become vacant as a result of normal fluctuation were not refilled immediately.

2 Business report

2.1 Overall economic situation and industry-specific framework

2.1.1 Economic development

At 1.4%, economic growth in Germany in 2018 was lower than in previous years (2.2% in 2016/17). The European Union was characterised by stable economic development and positive growth rates of around 1.9% in 2018.[1]

In the United States, GDP growth of 2.9% was achieved in 2018.[2]

In Switzerland, the original GDP growth rate of 2018 was slightly undershot, but still a growth of 2.5% was achieved.[3]

There were no regulatory changes in 2018 that had a material impact on AENOVA's business.

2.1.2 Development of the pharmaceutical and consumer healthcare market

According to a study by the market research company IQVIA, the global pharmaceutical market reached a total volume of around 1.2 trillion US dollars in 2018. Global drug spending is expected to grow at an annual rate of 3-6% over the next five years and exceed US$1.5 trillion by 2023.[4]

The most important growth drivers will continue to be the USA and the pharmerging markets[5] with annual growth of 4 - 7% and 5 - 8% respectively. In the USA, expenditure growth is influenced by the introduction of new products and brand pricing. In contrast, patent expirations and generics in particular will limit the growth potential in the United States.[6] Growth in the pharmerging markets is driven primarily by the increase in per capita consumption, but also by greater acceptance of new drugs due to the increasing purchasing power of the population. Although China, Brazil and India have the highest drug spending among the pharmerging markets, IQVIA predicts that Turkey, Egypt and Pakistan will have the highest growth rates between 2019 and 2023.

In Europe, cost containment measures and slower growth in new products are contributing to slower growth of 1-4%, compared to annual growth of 4.7% over the past five years.[7]

IQVIA forecasts that expenditure on special drugs in the developed pharmaceutical markets will increase to 475 - 505 billion US dollars by 2023. Specialised medicines treat chronic, complex or rare diseases and are usually more expensive. The top ten industrialised countries account for 66% of global spending on these speciality medicines. Growth drivers are the five therapeutic areas of oncology, autoimmune diseases, immunology, HIV and multiple sclerosis.

With regard to Brexit, the situation is unclear also at the beginning of 2019. The pharmaceutical industry warns, especially in the case of a "hard" brexit, of the potential consequences for health care. The European Medicines Agency (EMA) is relocating its headquarters from London to Amsterdam in March 2019 due to the departure of Great Britain from the EU.

Initial estimates by the German Chemical Industry Association (VCI) show that trade between the German chemical and pharmaceutical industries and Great Britain collapsed even before the upcoming

---

1 https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00115
2 https://de.statista.com/statistik/daten/studie/14558/umfrage/wachstum-des-bruttoinlandsprodukts-in-den-usa/
3 https://de.statista.com/statistik/daten/studie/14555/umfrage/wachstum-des-bruttoinlandsprodukts-in-der-schweiz/
4 IQVIA report “The Global Use of Medicine in 2019 and Outlook to 2023”
5 Definition of pharmerging markets (IQVIA report p. 47; chart page 7): According to the definition used here, pharmerging markets are countries with an absolute expenditure growth of more than 1 billion US dollars over a five-year period and a per capita income of less than 30,000 US dollars (including countries such as China, Brazil, Russia, India, Mexico, Turkey, Egypt, Pakistan and Poland).
6 IQVIA report “The Global Use of Medicine in 2019 and Outlook to 2023”
7 IQVIA report “The Global Use of Medicine in 2019 and Outlook to 2023”

Brexit. Last year, the volume of trade with the United Kingdom fell by almost 10% to 16 billion euros. According to VCI figures, German companies exported products worth 10.2 billion euros to this market and imported chemical products for 5.8 billion euros from there. According to VCI, German pharmaceutical companies may have imported fewer medicines and instead, in order to prevent the risk of Brexit, concluded contracts with other suppliers in Europe to replace British products.[8]

The annual growth rate of the CHC/OTC market amounted to 4% last year and, according to Nicholas Hall's forecasts, will remain at around 5% until 2022. The top 15 countries in the market generate around 80% of the total turnover; the USA, China and Japan alone account for almost 50%.[9]

The pressure to cut healthcare costs, combined with rising public demand for self-medication and increasing purchasing power in certain regions, are reasons for the positive outlook for the CHC/OTC market. The annual growth rate in Western Europe is expected to rise slightly to 3% by 2022, while the countries of Central and Eastern Europe (CEE) are expected to achieve annual growth of around 6%. The highest growth rate in the forecast period is expected for Latin America.[10]

By category, VMS (vitamins, minerals, supplements) dominate the market. Expenditure on vitamins and dietary supplements will grow by 4% annually until 2022, reaching a volume of over 50 billion US dollars. The second-largest category in terms of sales, OTC drugs for the treatment of colds, coughs and allergies, is also forecast to grow by 5% annually over the forecast period. So-called Lifestyle OTCs, which include products for weight loss, sedation or smoking cessation, will have the highest annual growth rate of all categories until 2022 at 7%.[11]

2.1.3 Market for contract development and manufacturing

According to PharmSource, the global market for pharmaceutical contract manufacturing (excl. API manufacturing) has a volume of over 20 billion US dollars. The top 10 companies alone generate around 8 billion US dollars, almost 40% of total turnover. The largest 33 suppliers in the market (turnover greater than 100 million US dollars) account for 63% of total market turnover.[12]

Solid dosage forms are and will remain the strongest segment in the pharmaceutical contract manufacturing market, with a share of over 40% and a sales volume of over 8 billion US dollars, while injectables account for 27% of the market. The so-called specialty segment (soft gelatine capsules, blow-fill seals, transdermal and inhalative products) accounted for 21% of total sales, while the semisolida/liquida segment accounted for 11%. There is a relatively small number of specialty drugs on the market, but the segment is growing both in terms of number and percentage of drugs sold. Compared to the other dosage forms, the speciality segment within the contract manufacturing market is growing fastest.[13]

According to PharmSource, many Finished Dosage CMOs will face new challenges in the coming years. This includes declining unit sales per product as well as the increase in biologics and highly potent products. In particular capacity-driven CMOs often lack the flexibility to meet these new customer requirements. For some companies, significant investments in plant and personnel would be necessary if they wished to continue operating in this sector in the future. An increasing number of acquisitions will shape the contract manufacturing industry. According to PharmSource, there will probably not be so many small and medium-sized, privately managed CMOs in the future.

8 ÄrzteZeitung online, 16.01.2019
9 Nicholas Hall YearBook 2018 - OTC Global Review
10 Nicholas Hall YearBook 2018 - OTC Global Review
11 Nicholas Hall YearBook 2018 - OTC Global Review
12 PharmSource "Trend Report: Contract Dose Manufacturing Industry by the Numbers…"
13 PharmSource "Trend Report: Contract Dose Manufacturing Industry by the Numbers…"

2.2 Course of business

The financial year 2018 closed with sales of MEUR 721.9, a decrease of MEUR 11.3 compared to the previous year. The decline in sales was driven by the first-time application of IFRS 15 (MEUR -8.7) and the sale of Euro Vital Pharma GmbH, which was sold on November 8, 2009, and therefore contributed only a proportion of sales (MEUR -5.8).

The budget of MEUR 754.8 could not be achieved due to some market and business influences, although sales with the top 20 major customers were only slightly below target. The budget deviation had various causes. In addition to the effect of the first-time application of IFRS 15 and the sale of Euro Vital Pharma GmbH, product launches by our customers into the market and product transfers to AENOVA were delayed. Lower demand from individual customers, limited availability of active ingredients and capacity bottlenecks in production also played a role.

For example, the product launches for a US customer were delayed with an effect of MEUR -4.6 and for an animal health customer in Latina with an effect of MEUR -3.2. Changed quality specifications at a CHC customer led to delays due to re-registrations with an effect of MEUR -3.3.

Apart from the above-mentioned market and business influences, there were no significant changes in the product or service portfolio that had an impact on the course of business.

Despite slightly lower sales compared to last year, EBITDA of MEUR 115.7 was significantly higher than last year's EBITDA (MEUR +40.0). Several factors contributed to this. On the one hand, there were one-off effects within other operating income, in particular the income from the sale of Euro Vital Pharma GmbH (MEUR 27.0). On the other hand, optimization was achieved in the area of other operating expenses, which at MEUR 101.1 were significantly lower than in the previous year (MEUR 107.8). At the same time, personnel expenses were slightly lower than in the previous year; the personnel cost ratio[14] thus remained virtually constant. Overall, the planned EBITDA of MEUR 76.6 was clearly exceeded despite lower sales.

EBITDA adjusted for special items of MEUR 99.4 was above the previous year's level (MEUR +16.3) and above the budget target (MEUR +11.8). The special effects include all non-recurring expenses and income. These include, for example, the profit from the sale of Euro Vital Pharma GmbH and severance payments.

At MEUR 76.2, depreciation, amortization, impairment, and write-downs were slightly above last year's level. The net financial result of MEUR -66.9 for the fiscal year 2018 remains largely stable compared to the previous year. Compared to the previous year, earnings before taxes improved by MEUR 37.1 to a deficit of MEUR 27.5 in fiscal year 2018. The net loss for the year amounts to MEUR 21.5.

The Group generated a cash flow from operating activities of MEUR 81.7 (previous year MEUR 65.7). In the area of working capital, the reduction of inventories had a positive effect on operating cash flow.

The cash flow from investing activities of MEUR 9.1 (previous year: MEUR -46.0) mainly results from proceeds from the sale of Euro Vital Pharma GmbH, partially compensated by payments for expansion investments such as the expansion of the plant in Cornu, serialization (required from February 2019) and maintenance investments.

The realignment of the Group in the year under review is proving successful. Both EBITDA and cash flow developed very positively. Although the sales targets for 2018 could not be achieved in full, the Group shows a stable and sustainable earnings level. In particular, the optimization and cost-cutting projects that were implemented had a lasting impact on the net assets, financial position and results of

14 Personnel costs / total output (sales plus changes in inventories)

operations. In the area of working capital, reductions in inventories were mainly offset by reductions in trade payables.

2.3 Financial performance indicators

The management of AENOVA manages the AENOVA Group primarily on the basis of the following key financial figures:[15]

1) EBITDA-related16 indicators

- Gross margin[17]: This is 59.1% (previous year 57.7%). Compared to the previous year, this improved significantly due to necessary cost recharges to customers, optimizations in the folding carton materials plus other purchasing activities as well as the deconsolidation of Euro Vital Pharma GmbH, which commanded a below-average gross trade margin.
- EBITDA margin[18]: This was 14.3% (previous year 11.3%). The EBITDA margin increased compared to the previous year due to cost savings in personnel and other operating expenses as well as higher other operating income.

2) Working Capital/Cash Management

- Total cash flow : The total cash flow of AENOVA as a key figure for liquidity management amounted to MEUR 15.5 (previous year MEUR 0.6). The increase in free cash flow mainly resulted from proceeds from the sale of Euro Vital Pharma GmbH and an improved operating result.
- Receivables management/Days Sales Outstanding (DSO)[19]: The ratio increased by 3.4 days year-on-year to 21.2 days and thus deteriorated slightly, mainly due to a reduction in sales of receivables.
- Liabilities management/Days Payables Outstanding (DPO)[20]: The ratio decreased by 13.5 days year-on-year to 63.9 days, mainly due to accelerated payments leveraging supplier discounts.
- Inventory turnover frequency/Days on hand (DOH)[21]: The ratio improved by 14.3 days year-on-year to 103.8 days. This is the result of inventory optimization projects.

EBITDA-related figures are calculated monthly on the basis of IFRS figures. For a period of time, working capital and cash management were monitored on a weekly basis. In the meantime, the liquidity situation has improved, which is why cash management in particular is now only reported on a bi-weekly or monthly basis.

The most important control-relevant KPIs developed as follows in the year under review (compared with the budget and the previous year):

	2018	2018 budgeted	2017
Gross profit margin in %	59,1%	58,3%	57,7%
EBITDA margin in %	14,3%	11,7%	11,3%
Total Cashflow in mEUR	15,5	-14,3	0,6
Days sales outstanding (DSO)	21,2	17,7	17,8
Days payables outstanding (DPO)	63,9	79,1	77,4
Days on hand (DOH)	103,8	122,9	118,1

15 To determine the key figures, the effects from IFRS 15 are deducted, as these only represent an accounting measure and are hardly controllable.
16 EBITDA: Earnings before Interest, Tax, Depreciation, and Amortization (German: Earnings before interest, taxes, depreciation and amortization of non-current assets, including amortization of goodwill and investments)
17 Gross margin: Ratio of gross profit to sales revenue and changes in inventories.
18 EBITDA margin: Ratio of EBITDA adjusted for special effects to revenue
19 Days Sales Outstandig (DSO): Ratio of trade receivables to average revenues of the last three months multiplied by 30 days.
20 Days Payables Outstanding (DPO): Ratio of trade payables (adjusted for CAPEX vendors) to average material costs and inventory changes over the last three months multiplied by 30 days.
21 Days on hand (DOH): Ratio of inventories to average material costs and inventory changes over the last three months multiplied by 30 days.

2.4 Earnings performance

The following table contains the consolidated income statement for the 2018 financial year.

MEUR	Jan. 1 - Dec.	Jan. 1 - Dec.
Revenues	721,9	733,2
Changes in inventories of finished goods and work in progress	-8,6	4,2
Other operating income	45,4	14,3
Cost of material and services purchased	-292,5	-311,6
Employee benefit expenses	-250,2	-254,8
Impairment loss/gain	0,7	-1,7
Other operating expenses	-101,1	-107,8
Earnings before interest, tax, depreciation and amortisation (EBITDA)	**115,7**	**75,7**
Depreciation and amortisation expense	-76,2	-75,4
Earnings before interest and taxes (EBIT)	**39,4**	**0,3**
Financial income	15,0	17,2
Financial expenses	-81,9	-82,1
Earnings before income taxes (EBT)	**-27,5**	**-64,6**
Income taxes	6,0	-3,4
NET LOSS OF THE YEAR	**-21,5**	**-68,0**
		-
Non-recurring effects	-16,3	7,4
EBITDA (before non-recurring)	**99,4**	**83,1**

AENOVA generated sales of MEUR 721.9 in the fiscal year, MEUR 11.3 less than in the same period of the previous year.

Sales were generated in the following regions:

MEUR	Jan. 1 - Dec. 31, 2018	Jan. 1 - Dec. 31, 2017
Germany	268,0	273,1
Rest of Europe	343,6	362,3
USA	36,8	36,3
Rest of world	73,5	61,5
Revenues	**721,9**	**733,2**

Compared to the previous year, sales declined in Germany and the rest of Europe. The decline in Germany is mainly due to Euro Vital Pharma GmbH, which contributed only ten months to sales in 2018 due to the sale. In the "Rest of Europe" region, the decline was driven by the insourcing of a large pharmaceutical customer, which was already taken into account in the planning and therefore leads to a planned decline. The "Asia-Pacific" region, which is part of the "Rest of the World" cluster, achieved a significant increase in revenue. This is mainly due to the positive business development with a major customer for dietary supplements and vitamin products. There were no significant changes in the USA, with a slight increase in sales.

There were no extraordinary or material price or volume effects, or material exchange rate fluctuations, in the fiscal year that significantly impacted revenues. The product range was not subject to any structural changes compared with the previous year.

Due to inventory optimization, the change in inventories of finished goods and work in progress was MEUR -8.6 (previous year: MEUR 4.2). Other operating income amounted to MEUR 45.4 (previous year: MEUR 14.3), mainly due to income from the sale of Euro Vital Pharma GmbH and other non-current assets amounting to MEUR 29.3 (previous year: MEUR 0.1), income from the reversal of provisions amounting to MEUR 6.9 (previous year: MEUR 4.6), reversals of allowances for doubtful receivables of MEUR 1.5 (previous year: MEUR 0.1), rental income of MEUR 0.4 (previous year: MEUR 0.3) and other operating income of MEUR 8.0 (previous year: MEUR 7.2).

The cost of materials amounts to MEUR 292.5 (previous year MEUR 311.6). The most significant savings in cost of materials continued to be achieved in the area of packaging materials, namely folding cartons and instructions for use. Other price increases were largely absorbed by purchasing. Necessary cost transfers to customers and the deconsolidation of Euro Vital Pharma GmbH, which commands a low gross trading margin, led to an overall positive development.

Personnel expenses amounted to MEUR 250.2 (previous year MEUR 254.8), with a personnel expense ratio of 35.1% based on total income[22] (previous year 34.6%). Despite the decline in sales, the personnel expense ratio rose only slightly due to savings in various areas.

Other operating expenses were reduced by MEUR 6.7 to MEUR 101.1 compared to the previous year. This was mainly driven by lower expenses for consulting and auditing services (MEUR 7.9, previous year MEUR 15.0).

Depreciation of property, plant, and equipment and amortization of intangible assets amounted to MEUR 76.2 during the fiscal year, the same as in the previous year (MEUR 75.4). Depreciation is divided equally between property, plant and equipment and intangible assets.

The net financial result for the fiscal year was MEUR -66.9 (previous year MEUR -64.9), with net interest income almost constant compared to the previous year. The change is mainly due to currency effects. Further information on the financing structure is provided in section 2.5Financial position.

Foreign currency and inflation effects have an insignificant overall impact on the net assets, financial position and results of operations and mainly relate to sales revenues and personnel expenses in foreign currencies (mainly EUR against CHF, USD and GBP).

The positive tax result was significantly influenced by the reversal of deferred tax liabilities as a result of scheduled amortization of intangible assets capitalized as part of purchase price allocations.

Overall, AENOVA was able to significantly improve its earnings situation.

2.5 Financial position

Cash and cash equivalents amounted to MEUR 49.6 (previous year MEUR 33.3) at the balance sheet date and consist mainly of bank balances. The following developments occurred within cash and cash equivalents:

- Cash inflow from operating activities (after income taxes paid) of MEUR 81.7 (previous year MEUR 65.7), where working capital[23] had a negative effect on cash flow of MEUR 14.4 (previous year MEUR 1.9). This results from changes in inventories, trade receivables and trade payables.
- Cash inflow from investing activities of MEUR 9.1 (previous year: MEUR -46.0), mainly comprising MEUR 36.5 of proceeds from the sale of Euro Vital Pharma GmbH less cash and cash equivalents and MEUR -34.2 (previous year: MEUR -42.3) of cash outflows for investments in property, plant and equipment. The most important investments relate to the expansion of the production sites and their modernisation at the Cornu, Latina and Bad Aibling sites. Both the machine capacity and the corresponding IT infrastructure were updated.

22 Sales plus inventory changes

23 Working capital: Balance of trade accounts receivable/payable, contract assets and inventories

- Cash outflow from financing activities of MEUR -75.3 (previous year MEUR -19.2) resulting from the repayment of liabilities from finance leases and loans of MEUR -44.2 (previous year MEUR -9.6) as well as from interest paid of MEUR -44.6 (previous year MEUR -41.6). The contribution of MEUR 6.5 to the capital reserve had a positive effect.

The financial position has improved significantly versus previous year.

2.6 Financial situation

The following table shows the net assets as of the balance sheet date:

ASSETS		
MEUR	**Dec. 31, 2018**	**Dec. 31, 2017**
Intangible Assets	371,9	419,5
Property, plant and equipment	262,8	261,6
Other non-current financial assets	1,6	0,8
Other non-current assets	3,3	3,5
Deferred tax assets	30,2	28,0
Non-current assets	**669,8**	**713,3**
Inventories	56,3	110,8
Trade receivables	42,3	38,1
Contract assets	40,3	-
Income tax claims	0,2	10,3
Other current financial assets	9,1	15,3
Other current assets	19,9	14,9
Cash and cash equivalents	49,6	33,3
Current assets	**217,7**	**222,8**
Total assets	**887,4**	**936,1**

EQUITY & LIABILITIES		
MEUR	**Dec. 31, 2018**	**Dec. 31, 2017**
Share capital	0,0	0,0
Capital reserves	129,4	122,9
Loss carried forward	-483,7	-462,2
Other components of equity	-3,5	-13,7
Equity	**-357,8**	**-353,0**
Provision for pensions and other employee benefits	56,6	58,5
Other non-current provisions	12,9	9,5
Non-current financial liabilities	963,0	937,4
Other non-current liabilities	10,4	7,6
Deferred tax liabilities	60,5	68,0
Non-current liabilities	**1.103,5**	**1.081,0**
Trade payables	53,7	72,7
Income tax liabilities	14,6	16,6
Current provisions	9,3	17,5
Current financial liabilities	34,7	63,9
Other current liabilities	29,2	37,4
Current liabilities	**141,6**	**208,0**
Total equity and liabilities	**887,4**	**936,1**

As of the reporting date, non-current assets amounted to MEUR 669.8 (previous year MEUR 713.3). They consist mainly of intangible assets of MEUR 371.9 (previous year: MEUR 419.5) and property, plant, and equipment of MEUR 262.8 (previous year: MEUR 261.6). The total investments in fixed assets of MEUR 42.0 for the fiscal year are divided into investments in land and buildings (MEUR 2.6), assets under construction (MEUR 15.0), plant and machinery (MEUR 22.0), IT equipment (MEUR 0.7), and other fixed assets (MEUR 0.2). There are no advance payments on property, plant and equipment. In addition, an amount of MEUR 1.5 was invested in intangible assets, of which MEUR 1.3 related to software.

For the year 2019, net of customer share investments of MEUR 41.5 are planned, which will contribute to the modernization and expansion of the production sites.

Intangible assets consist mainly of goodwill of MEUR 265.0 (previous year: MEUR 265.7) as well as customer contracts and relationships of MEUR 67.1 (previous year: MEUR 94.2). The decline is due to scheduled amortization of customer bases and disposals as a result of the sale of Euro Vital Pharma GmbH.

Current assets amounted to MEUR 217.7 as of the reporting date (previous year MEUR 222.8). They consist primarily of trade receivables of MEUR 42.3 (previous year MEUR 38.1), contract assets of MEUR 40.3 (previous year MEUR 0), inventories of MEUR 56.3 (previous year MEUR 110.8), and cash and cash equivalents of MEUR 49.6 (previous year MEUR 33.3). The recognition of contract assets is attributable to the first-time recognition in accordance with IFRS 15, according to which AENOVA recognizes revenues and assets in the same amount before invoicing. The factoring rate of 60% declined slightly (previous year 66%). The reduction in inventories is based on an optimization of inventory management. In addition, the first-time application of IFRS 15 had an impact of MEUR -6.0.

The negative equity of MEUR 357.8 (previous year: MEUR 353.0), together with the goodwill of MEUR 265.0 , has a significant impact on the financial situation. As of the balance sheet date, shareholders' equity consisted of subscribed capital of KEUR 25 (previous year: KEUR 25), capital reserves of MEUR 129.4 (previous year: MEUR 122.9), a balance sheet loss of MEUR 483.7 (previous year: MEUR 462.2), and other components of MEUR -3.5 (previous year: MEUR -13.7). The increase in capital reserves is due to a shareholder contribution of MEUR 6.5 at the beginning of 2018. The accumulated deficit includes the net loss for the year of MEUR 21.5 (previous year MEUR 68.0) and the other equity components include the effects of the transition to IFRS 9 and IFRS 15 of MEUR +6.8.

As of the reporting date, non-current liabilities amounted to MEUR 1,103.5 (previous year MEUR 1,081.0). They consist mainly of non-current financial liabilities of MEUR 963.0 (previous year MEUR 937.4). The increase in non-current liabilities compared to the previous year is mainly due to accrued interest on the shareholder loan of MEUR 18.8 (previous year MEUR 18.8). Non-current financial liabilities mainly result from non-current loan liabilities of MEUR 643.3 (previous year MEUR 635.7). The liabilities to affiliated companies (MEUR 207.7) are subordinated loans with interest payments deferred up to final maturity from Apollo 11 Holding S.á r.l. The reduction of deferred tax liabilities by MEUR 7.4 mainly results from a release due to scheduled amortization of intangible assets capitalized as part of purchase price allocations.

Current liabilities amounted to MEUR 141.6 (previous year: MEUR 208.0) as of the reporting date and consist primarily of trade payables of MEUR 53.7 (previous year: MEUR 72.7), current financial liabilities of MEUR 34.7 (previous year: MEUR 63.9), income tax liabilities of MEUR 14.6 (previous year: MEUR 16.6), and current provisions of MEUR 9.3 (previous year: MEUR 17.5).

Foreign currency effects have an insignificant overall impact on the financial position and relate to trade receivables and payables in foreign currencies (mainly EUR against CHF and USD).

2.7 Financing structure

In September 2014, the existing loans were extended, partially modified and replaced by new contracts as part of refinancing. Under the new contracts ("Senior first lien" and "Senior second lien") a total of MEUR 639.0 was borrowed.

Deutsche Bank AG acts as the agent of the loan under the senior second lien. UniCredit Bank AG, London, acts as agent for the senior first lien loan and as security agent for the senior second lien loan. The loans are now fully syndicated.

The 1st Lien loan had a nominal value of MEUR 500.0 at a base rate of 4% plus Euribor at the balance sheet date. If the Euribor falls below 1%, 1% is applied. The final termination date of the bullet loan is 29 September 2020.

The 2nd Lien loan had a nominal value of MEUR 139.0 at a base rate of 7.5% plus Euribor at the balance sheet date. If the Euribor falls below 1%, 1% is applied. The final termination date of the bullet loan is 29 September 2021.

The credit line of the revolving credit facility amounts to MEUR 50.0, of which MEUR 2.5 is reserved for guarantees. As of December 31, 2018, MEUR 15.0 of the free credit line were drawn down. The term of the revolving credit facility will expire 29 September 2020.

The AENOVA Group plans to extend the term of this bank financing in 2019 and/or 2020. From today's perspective, discussions with existing lenders, banks and rating agencies are expected to lead to such an extension of the term or complete refinancing. On the basis of this year's improved corporate performance, it can be expected that the rating and the conditions for refinancing will also improve. In addition, it is expected that the continued policy of the European Central Bank with a low key interest rate will have a positive effect and that risk capital with a high interest rate will remain attractive.

2.8 Human resources and social affairs

The AENOVA Group had an average of 4,319 employees in the past financial year (2017: 4,473 employees). There is a group-wide performance-oriented remuneration system that contains target agreements and target achievement checks for employees. This is intended to show employees development potential while at the same time strengthening their motivation to perform.

Improvements in employee qualifications and high standards in the recruitment of new employees have had a positive effect on the quality of AENOVA's products and services. Qualified and motivated employees will also consistently improve AENOVA's quality and range of services.

In addition, in recent years the AENOVA Group has made it possible for around 100 young people to train as IT specialists, chemical laboratory technicians, machine and plant operators, warehouse logistics specialists, industrial mechanics, office clerks, industrial clerks, etc., which has made a significant contribution to internal recruitment and social responsibility.

Employees represent a significant asset of the AENOVA Group. The identification of the employees with AENOVA and the efforts of the employees for the group are a key factor for success. AENOVA promotes the improvement of employee qualifications through various initiatives such as area-related training and focuses on the continuous recruitment and training of qualified junior staff.

3 Opportunity and risk report

AENOVA's operational processes are designed to identify short and medium-term risks and opportunities in order to be able to take timely countermeasures or exploit opportunities in the event of risks. As part of Group-wide risk management, each division is required to identify and assess risks, communicate them and develop measures to deal with them. Communication is established with responsible employees from various areas of the company (Development, Sales, Manufacturing and Quality, SCM, Finance, IT and HR) in order to coordinate risks across departments and decide on measures.

As a result, decision documents are prepared and made available to the AENOVA management. These documents are discussed and approved in meetings with the AENOVA management. From today's perspective, the AENOVA Group is very well positioned to generate further sales growth from current market developments.

Overall, there is a low to medium risk that the risks listed in this chapter will lead to a deviation from the plan with regard to the future net assets, financial position and results of operations of the Group.

3.1 Competition

The healthcare market is characterized by intense competition. Price pressure is a permanent challenge. Nevertheless, AENOVA can benefit from its cost leadership strategy as weaker competitors are expected to lose market share.

AENOVA is very well positioned to meet the tough competition in the pharmaceutical and healthcare market for the following reasons:

- Bundling of production resources in competence centers to expand cost leadership and strong focus on operational excellence and cost management
- Strengthening and reorganization of sales activities with a clear focus on comprehensive customer service
- Optimization of procurement and planning processes by strengthening strategic purchasing and resources in supply chain management.

The opportunities for gaining additional market shares are classified as medium. Due to its good positioning, AENOVA is able to manage the risks in the competitive area and classifies them as low.

3.2 Insourcing

As a contract manufacturer, AENOVA is exposed to the risk that customers may use their own production capacities in order to utilize them (insourcing) or build up capacities and pull out production volumes from AENOVA. This effect is counteracted by other customers outsourcing parts of their production to the CDMO market. This in turn presents itself as an opportunity for AENOVA.

The risk described above can be countered with a competitive cost structure, good customer relationships over many years and good quality over the long term.

Overall, insourcing risks are considered low, with the exception of some large pharmaceutical companies that are revising their production strategies. Many major customers in generics, CHC and veterinary medicine continue to rely on stable partnerships. Many medium-sized customers do not have their own or sufficient production capacities.

3.3 Procurement/price risk

The global procurement of raw materials and the associated market effects, especially in the development of material prices and material availability, bring both opportunities and risks for AENOVA.

Difficult to predict capacity bottlenecks for special raw materials and high volatility in the raw materials sector can cause major fluctuations in procurement prices, which can have a negative or positive impact on sales and the development of margins. This applies not only to chemical substances such as vitamins, but especially to biological materials such as plant extracts or fish oil, whose availability is strongly influenced by climate and harvesting conditions.

AENOVA's central, globally active strategic purchasing organisation defines strategic product groups and derives specific purchasing strategies from them. This strengthens AENOVA's position as a leading European contract manufacturer on the procurement market with access to attractive terms and conditions.

In order to minimize risks, the procurement market is permanently monitored by strategic purchasing; negotiations with suppliers are derived from this. The aim is to establish alternative suppliers for critical raw materials in order to avoid dependencies and potential supply bottlenecks.

The risk in this area depends largely on exogenous influences, the effects of which AENOVA attempts to minimise through the measures defined above. In view of the defined measures, management considers the risk in the area of procurement/price risk to be low.

3.4 Market/demand

Research-based pharmaceutical companies are increasingly focusing on their core competencies in research and development as well as marketing. The area of production is increasingly described as non-strategic by research-based pharmaceutical companies. In this situation, AENOVA is a competent partner who, as a contract manufacturer, regards the production of pharmaceuticals as its core competence and can offer its customers solutions from a single source to meet their challenges.

It is still expected that a large number of new molecular entities (NMEs) will come onto the market over the next few years. Several products are currently in a late phase of clinical development. AENOVA can benefit from this.

In order to exploit these opportunities and achieve potential sales increases, AENOVA relies on individual customer relationships and full service. Key Account Management offers the full range of products and services. Potential major orders are accompanied by the management, including all relevant technical and non-technical areas.

Given the Group's positioning and long-standing customer relationships, the opportunities are regarded as medium.

Market risks are seen in particular in the unequal economic recovery in Europe, political tensions in Russia and neighboring countries, and recent events in Africa and the Middle East. The market risks are assessed by the management as low overall.

3.5 Political decisions

Political developments in the health sector, especially with regard to cost-cutting plans, have an impact on industry worldwide. Specifically, the bundling of contracts by the health insurance funds and the procedures for awarding major contracts (tender procedures) should be mentioned here.

No significant political changes that could have an impact on AENOVA's business are expected. The possible effects of the upcoming brexit and the politically driven trade conflicts between the USA and China are unlikely to have any significant impact on AENOVA's business. Particularly noteworthy are the requirements implemented in many countries for the serialization and tamper-proofing of drugs, which pose challenges for the entire pharmaceutical industry, especially in the area of customer-specific packaging automation. The requirements were implemented by AENOVA on time (EU from February 2019).

Management currently considers the risks from political decisions to be low.

3.6 Interest rate and currency risks

Due to its business activities, AENOVA is generally exposed to interest rate and currency risks. Group-wide risk management focuses on unforeseeable events on the financial markets and attempts to minimize adverse effects on Group earnings. The variable interest components of the long-term loans have a floor of 1%. In the medium term, AENOVA sees no interest rate increases above this level and therefore no relevant risk in the development of interest rates.

AENOVA is exposed to foreign currency risks as sales and purchases are made in different currencies. In most transactions, there is a natural currency hedge; for example, in the United States, the unit acts both as a buyer and as a seller in the American market. In Switzerland, a significant proportion of purchases and sales are made using AENOVA's functional currency, the euro. Foreign currency risks are analyzed and assessed on an ongoing basis in order to take timely currency hedging measures and reduce this risk.

Risk management is carried out by AENOVA in accordance with defined guidelines with the objective of minimising the risk of fluctuations in earnings. Corporate Treasury naturally identifies, evaluates and attempts to minimize risks in close cooperation and coordination with the operating business units.

Management currently considers the risks from interest rate and currency fluctuations to be low.

3.7 Liquidity and default risks

Liquidity risk describes the risk that AENOVA will not be able to meet its financial obligations when they fall due, such as the repayment of financial liabilities or the settlement of liabilities to suppliers and employees. As part of its liquidity management, the Group ensures that sufficient liquid funds are always available to meet its payment obligations in a timely manner under both normal and difficult conditions, without incurring unacceptable losses or the risk of damage to its reputation.

A liquidity forecast is prepared for the purpose of short- and medium-term liquidity management. The liquidity forecast takes into account AENOVA's financing plans (interest payments), existing and expected liabilities and payment obligations, necessary investments and compliance with certain financial covenants.

The liquidity forecast for the 2019 financial year is heavily dependent on the assumptions underlying the budgeting: The planned increase in revenues is mainly based on volume growth and price adjustments. The gross margin is almost stable. Other operating expenses increased at a slower rate than sales growth. In the area of personnel expenses, significant increases are expected to be influenced by volume increases, but also by wage influences and other salary increases. The 2018 financial year was used to stabilise the situation. The planning assumptions for the 2019 financial year envisage ongoing optimisation measures and, in particular, growth.

AENOVA uses the liquidity forecast to monitor the main payment movements and to ensure sufficient liquidity in the AENOVA Group. The Group also uses the monthly balance sheets, income statements, working capital plans and investment reports to monitor long-term liquidity.

In addition to effectively managing liquidity and working capital, the Group reduces the liquidity risk through a revolving loan of MEUR 50.0 maturing on September 29, 2020, which was drawn at MEUR 15.0 at the time of preparation. In September 2014, the existing loans were extended, partially modified and replaced by new contracts as part of refinancing. Under the new contracts ("Senior first lien" and "Senior second lien"), a total of MEUR 639.0 was raised and the previous loans repaid. The "senior first lien" and the "senior second lien" each have a term until 2020 and 2021, respectively, in compliance with the financial covenants.

The AENOVA Group plans to extend the term of this bank financing in 2019 and/or 2020. From today's perspective, based on discussions with existing lenders and banks as well as rating agencies, there is no reason to believe that such an extension of the term should not be successful.

Due to the available liquidity and the existing credit lines, the liquidity risk for the 2019 and 2020 financial years can be classified as medium.

3.8 Compliance with financial covenants

AENOVA continuously monitors compliance with these key figures on the basis of forecasts and simulations. All covenants were complied with in the year under review with sufficient scope.

The risk in the area of financial covenants is that AENOVA does not achieve the forecasts or simulations if significant planning assumptions do not materialize. A breach of the covenants would have the consequence that the bank loans would become due or the banks could exercise their right of termination.

Based on the monitoring processes, management currently sees a low risk with regard to compliance with the financial covenants.

4 Forecast report

The Management Board expects sales of MEUR 741.1 for the fiscal year 2019 and increasing growth for the following years with continued stable earnings and liquidity. This assessment is based in particular on the expected developments in the pharmaceutical and consumer healthcare markets and on the strategic projects that the Group launched in the financial years 2015 to 2017.

In the pharmaceutical market, further increases in volumes and an increase in market shares for generic products are expected in the coming years due to the expiration of key patents. Sales prices are under increasing competitive pressure and are partly regulated, which favours competitive producers. Research-based pharmaceutical companies are increasingly focusing on their core competencies of research and development, as well as marketing and sales.

The Consumer Healthcare segment is influenced by various market trends. Saturated OTC markets such as Germany are recording a slight decline in OTC business via pharmacies, but are showing growth with more favourable distribution channels.

The challenges of the market are basically unchanged from the previous year: price pressure, challenges on the sales and procurement side, as well as new global markets, above all the so-called "emerging markets", which are characterized by disproportionately rising demand. Service providers for the pharmaceutical industry, such as contract manufacturers, must also change in order to be able to differentiate their offers and services, to serve customers in a competitive market as a full-range supplier and to retain them over the long term. Those who can adapt quickly will position themselves as market leaders.

AENOVA has defined strategic initiatives and has already initiated measures to position itself in line with market conditions and thus to be optimally positioned for the future:

- Expansion of the product range / Differentiation

  AENOVA's core business comprises the development and production of pharmaceutical products and food supplements in modern oral dosage forms, such as soft gelatine and hard capsules, tablets, effervescent tablets, sterile (and non-sterile) liquids and udder injectors. AENOVA offers a comprehensive portfolio of services including development, raw material sourcing, production, analysis, packaging and distribution.

  The product range has been and will be successively expanded by expanding the existing sites, in particular the soft gelatine site in Cornu and the animal health site in Latina.

- Focus on service, cost leadership and quality

  The AENOVA strategy focuses on service excellence, cost leadership and quality.

For fiscal year 2019, total sales of MEUR 741.1, EBITDA (before special items) of MEUR 94.6, and EBITDA (after special items) of MEUR 91.6 were budgeted. As a result of the planned increase in sales, it can be assumed that the Group's liquidity position will develop positively in the future.

The increase in sales planned for 2019 is to result from organic growth.

The slight increase in sales revenue reflects the expected continued demand in the European pharmaceutical and animal health markets. A stable EBITDA before special effects is expected.

AENOVA anticipates the following development of the key figures for the next financial year:

- Days Sales Outstanding (DSO)[24]: AENOVA plans to change the DSO value from 21.2 to 18.3 (-13.7%) in fiscal year 2019.
- Days Payables Outstanding (DPO)[25]: AENOVA plans to increase the ratio from 63.9 to 68.2 (6.6%) for fiscal year 2019 due to extended payment terms with various suppliers.
- Inventory management / turnover rate[26]: Based on numerous optimisation programmes, the management expects an improvement in the ratio for the 2019 financial year from 103.8 to 98.5 (-5.2%) compared with the 2018 financial year.
- Total cash flow: For the fiscal year 2019, AENOVA expects a total cash flow before acquisitions of MEUR +4.9, among other things due to further strategic investments in the context of expansion of various locations.

  A stable liquidity situation is expected in 2019.

The financing of AENOVA is secured on the basis of the existing financing commitments of the banks and the majority owners as well as the earnings and financial planning prepared by management.

The assessments in this report are based on current knowledge and information. Due to uncertainties in any planning, actual developments may differ from current estimates.

Overall, there are no identifiable risks that could jeopardize the existence of the Group.

For the period from January 1, 2019 to the preparation of the consolidated financial statements, AENOVA's net assets, financial position and results of operations developed better than planned. This was confirmed by the consolidated balance sheet and income statement for the period January to March 2019. The budgeted total annual turnover is supported by more than 50% by orders received.

24 Days Sales Outstanding (DSO): Ratio of trade receivables to net sales.
25 Days Payables Outstanding (DPO): Ratio of trade payables (adjusted for CAPEX accounts payable) to average material costs including inventory changes.
26 Inventory turnover rate: Ratio of inventories to average material costs including changes in inventories.

5 Supplementary report

In the period from January 1, 2019 to the preparation of the consolidated financial statements, no events occurred that would have a material impact on these financial statements.

Starnberg, April 12, 2019

Ralf Schuler	Stefan Zuschke
Apollo 5 GmbH Managing Director	Apollo 5 GmbH Managing Director