

voxeljet AG

INDEX TO FINANCIAL STATEMENTS

	<u>Page</u>
Consolidated Financial Statements of voxeljet AG:	
Report of Independent Registered Public Accounting Firm	F-2
Report of Independent Registered Public Accounting Firm	F-3
Consolidated Statements of Financial Position as of December 31, 2018 and 2017	F-7
Consolidated Statements of Comprehensive Loss for the years ended December 31, 2018, 2017, and 2016	F-8
Consolidated Statements of Changes in Equity for the years ended December 31, 2018, 2017, and 2016	F-9
Consolidated Statements of Cash Flows for the years ended December 31, 2018, 2017, and 2016	F-10
Notes to the Consolidated Financial Statements	F-11

Report of Independent Registered Public Accounting Firm

To the Stockholders and Supervisory Board
voxeljet AG:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of financial position of voxeljet AG and subsidiaries (the Company) as of December 31, 2018 and 2017, the related consolidated statements of comprehensive loss, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2018, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 28, 2019 expressed an adverse opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG AG Wirtschaftsprüfungsgesellschaft

We have served as the Company's auditor since 2007.

Munich, Germany
March 28, 2019

Report of Independent Registered Public Accounting Firm

To the Stockholders and Supervisory Board
voxeljet AG:

Opinion on Internal Control Over Financial Reporting

We have audited voxeljet AG's and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, because of the effect of the material weaknesses, described below, on the achievement of the objectives of the control criteria, the Company has not maintained effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated statements of financial position of the Company as of December 31, 2018 and 2017, the related consolidated statements of comprehensive loss, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes (collectively, the consolidated financial statements), and our report dated March 28, 2019 expressed an unqualified opinion on those consolidated financial statements.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. The following material weaknesses have been identified and included in management's assessment:

The Company did not have an effective control environment including:

- oversight by the Supervisory Board over the processes and internal controls over the five components of the COSO 2013 Framework;
- evaluation of the competence and expertise necessary to support the growth and complexity of the business, its financial reporting, and to develop an appropriate response to address any shortcomings effectively during 2018, and sufficient number of adequately trained personnel within the organization with assigned responsibility and accountability for the conduct of internal control over financial reporting or to supervise and review the work product of third party service providers engaged to assist the Company in its general information technology controls;
- effective controls to hold personnel accountable for their internal control responsibilities through performance measurement plans and goals, and
- sufficient training of personnel on the COSO 2013 Framework and their financial reporting and related internal control responsibilities.

The Company did not have an effective risk assessment process including:

- sufficient knowledge of IFRS to assess the application of new or modified accounting standards to its significant accounting policies and to assess the required changes to its processes and related internal controls over financial reporting;
- an effective continuous risk assessment process to identify and assess the financial reporting risks caused by changes in the operating environment, business operations, personnel or IT systems and to make necessary changes to its financial reporting processes and related internal controls to manage those risks;

[Table of Contents](#)

- consideration of materiality in the determination of the significant components of the entity, significant accounts and disclosures at the entity and component level, relevant assertions over the accounts and disclosures, and the determination of risk tolerance to business process activities and the precision of related internal controls; and
- design of control activities that are responsive to the identified fraud risks, including the risk of bias and management override of controls.

The Company did not have effective information and communication processes and controls including:

- sufficient processes and controls in place to ensure the timely identification and communication of relevant and reliable information sourced internally and externally to financial reporting personnel, management and Supervisory Board.

The Company did not have effective monitoring activities including:

- effective controls to ascertain whether the processes and internal controls related to the five COSO 2013 Framework components (and underlying principles) were present and functioning;
- effective controls to establish recurring monitoring activities over process level controls related to routine transactions or unusual nonrecurring transactions;
- an effective, functioning internal audit group to monitor the effectiveness of internal controls
- an effective process and controls to timely process to remediate existing control deficiencies.

The Company did not have effective control activities including:

- development of adequate written policies and procedures to support the effective implementation and operation of the controls;
- effective control activities at the transaction level over certain significant accounts to mitigate the risk of material misstatement in financial reporting;
- effective general information technology controls (GITCs) over the information technology system that supports the Company's financial reporting processes to ensure that all relevant and reliable information used in financial reporting is protected, verifiable and retained, specifically:
 - inappropriate user access controls in the SAP ERP system to ensure appropriate segregation of duties and to adequately restrict user and privileged access to appropriate personnel commensurate with their job responsibilities;
 - ineffective program change management controls, specifically the Company did not properly document the nature of the program changes, performance of testing and the approval;
- effective automated process-level controls and manual controls that are dependent upon the completeness and accuracy of information derived from IT systems;
- effective end-user computing controls over manual spreadsheets used in the financial reporting process;
- effective process-level controls activities including:

Financial Statement Close and Reporting Process

- Ineffective design and implementation, and operation of controls over the completeness, existence and accuracy of the financial statement close and reporting process and financial statement disclosures;

[Table of Contents](#)

- Ineffective design and implementation, and operation of controls over the completeness, existence, accuracy and presentation of the consolidated statements of cash flows;
- Ineffective design and implementation, and operation of controls to ensure intercompany transactions are completely and accurately identified, reconciled, evaluated and eliminated;

Adoption of New Accounting Standards

- Ineffective design and implementation and operation of controls over the completeness, existence, accuracy and presentation of account balances and disclosures related to the adoption of the new accounting standards, IFRS 15, *Revenue from Contracts with Customers*, and IFRS 9, *Financial Instruments*;

Impairment

- Ineffective design and implementation and operation of controls to assess the existence of impairment indicators and to perform an impairment assessment of the Company's long-lived assets in accordance with IAS 36, *Impairment of Assets* including ineffective design and implementation and operation of controls over the appropriateness of the assumptions and methodology used to measure the fair value of cash-generating units.

These material weaknesses were considered in determining the nature, timing, and extent of audit tests applied in our audit of the 2018 consolidated financial statements, and this report does not affect our report on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management's Annual Report on Internal Control over Financial Reporting*. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk

[Table of Contents](#)

that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG AG Wirtschaftsprüfungsgesellschaft

Munich, Germany
March 28, 2019

voxeljet AG

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

	Notes	December 31,	
		2018	2017 ^{(1) (2)}
		(€ in thousands)	
Current assets		37,936	37,494
Cash and cash equivalents	3	7,402	7,569
Financial assets	3, 14	12,905	14,044
Trade receivables	3, 8	6,030	5,093
Inventories	9	10,064	9,259
Income tax receivables		13	3
Other assets		1,522	1,526
Non-current assets		31,416	29,508
Financial assets	3, 14	2,234	357
Intangible assets	11	1,420	1,111
Property, plant and equipment	12	27,675	27,949
Investments in joint venture		33	39
Other assets		54	52
Total assets		69,352	67,002
		December 31,	
		2018	2017 ^{(1) (2)}
		(€ in thousands)	
Current liabilities		6,302	6,576
Deferred income	3	--	271
Trade payables	3	2,945	3,059
Contract liabilities	3	817	--
Financial liabilities	3, 14	850	1,162
Other liabilities and provisions	13	1,690	2,084
Non-current liabilities		16,575	16,537
Deferred income	3	--	18
Deferred tax liabilities		76	66
Financial liabilities	3, 14	16,321	16,413
Other liabilities and provisions	13	178	40
Equity		46,475	43,889
Subscribed capital	25	4,836	3,720
Capital reserves	26	86,803	76,227
Accumulated deficit	3	(46,400)	(37,509)
Accumulated other comprehensive income		1,201	1,380
Equity attributable to the owners of the company		46,440	43,818
Non-controlling interests		35	71
Total equity and liabilities		69,352	67,002

See accompanying notes to these consolidated financial statements.

⁽¹⁾ Comparative figures for the year ended December 31, 2017 were restated for immaterial errors. For further information, see Note 6 to the consolidated financial statements.

⁽²⁾ voxeljet AG has initially applied IFRS 15 and IFRS 9 as of January 1, 2018. Under the transition methods chosen, comparative information has not been restated. For further information, see Note 3 to the consolidated financial statements.

voxeljet AG

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

	Notes	Year Ended December 31,		
		2018	2017 ^{(1) (2)}	2016 ⁽²⁾
(€ in thousands, except share and share data)				
Revenues	3, 20	26,009	23,178	22,338
Cost of sales	15	(16,864)	(13,853)	(15,435)
Gross profit		9,145	9,325	6,903
Selling expenses		(7,332)	(6,474)	(5,312)
Administrative expenses		(5,587)	(5,129)	(4,563)
Research and development expenses		(6,334)	(5,528)	(5,683)
Other operating expenses	16	(751)	(1,844)	(3,881)
Other operating income	16	1,297	1,001	1,417
Operating loss		(9,562)	(8,649)	(11,119)
Finance expense	17	(1,143)	(190)	(230)
Finance income	17	1,952	365	38
Financial result	17	809	175	(192)
Loss before income taxes		(8,753)	(8,474)	(11,311)
Income tax expense	18	(11)	(80)	(2)
Net loss		(8,764)	(8,554)	(11,313)
Other comprehensive income (loss) that may be reclassified subsequently to profit or loss		(179)	505	1,111
Total comprehensive loss		(8,943)	(8,049)	(10,202)
Loss attributable to:				
Owner of the Company		(8,728)	(8,538)	(11,287)
Non-controlling interests		(36)	(16)	(26)
		(8,764)	(8,554)	(11,313)
Total comprehensive loss attributable to:				
Owner of the Company		(8,907)	(8,033)	(10,176)
Non-controlling interests		(36)	(16)	(26)
		(8,943)	(8,049)	(10,202)
Weighted average number of ordinary shares outstanding		3,940,636	3,720,000	3,720,000
Loss per share - basic/ diluted (EUR)		(2.21)	(2.30)	(3.04)

See accompanying notes to these consolidated financial statements.

⁽¹⁾ Comparative figures for the year ended December 31, 2017 were restated for immaterial errors. For further information, see Note 6 to the consolidated financial statements.

⁽²⁾ voxeljet AG has initially applied IFRS 15 and IFRS 9 as of January 1, 2018. Under the transition methods chosen, comparative information has not been restated. For further information, see Note 3 to the consolidated financial statements.

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CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

	(€ in thousands)						
	Attributable to the owners			of the company			
	Subscribed capital	Capital reserves	Accumulated deficit	Accumulated other comprehensive gain (loss)	Total	Non-controlling interests	Total equity
Balance at January 1, 2016	3,720	75,671	(17,684)	(238)	61,469	--	61,469
Establishment of subsidiary with non-controlling interests	--	--	--	--	--	113	113
Loss for the period	--	--	(11,287)	--	(11,287)	(26)	(11,313)
Net changes in fair value of available for sale financial assets	--	--	--	50	50	--	50
Foreign currency translation	--	--	--	1,061	1,061	--	1,061
Equity-settled share-based payment transaction in relation to the establishment of a subsidiary with non-controlling interest	--	156	--	--	156	--	156
Balance at December 31, 2016 ⁽²⁾	3,720	75,827	(28,971)	873	51,449	87	51,536
Balance at January 1, 2017	3,720	75,827	(28,971)	873	51,449	87	51,536
Loss for the period	--	--	(8,538)	--	(8,538)	(16)	(8,554)
Net changes in fair value of available for sale financial assets	--	--	--	37	37	--	37
Foreign currency translation	--	--	--	470	470	--	470
Deferred tax	--	14	--	--	14	--	14
Equity-settled share-based payment	--	386	--	--	386	--	386
Balance at December 31, 2017 ⁽¹⁾⁽²⁾	3,720	76,227	(37,509)	1,380		71	43,889
Adjustment on initial application of IFRS 15	--	--	(100)	--	(100)	--	(100)
Adjustment on initial application of IFRS 9	--	--	(63)	--	(63)	--	(63)
Adjusted balance at January 1, 2018	3,720	76,227	(37,672)	1,380	43,655	71	43,726
Loss for the period	--	--	(8,728)	--	(8,728)	(36)	(8,764)
Net changes in fair value of available for sale financial assets	--	--	--	(119)	(119)	--	(119)
Foreign currency translation	--	--	--	(60)	(60)	--	(60)
Capital increase	1,116	9,972	--	--	11,088	--	11,088
Deferred tax	--	--	--	--	0	--	0
Equity-settled share-based payment	--	604	--	--	604	--	604
Balance at December 31, 2018	4,836	86,803	(46,400)	1,201	46,440	35	46,475

See accompanying notes to these consolidated financial statements.

⁽¹⁾ Comparative figures for the year ended December 31, 2017 were restated for immaterial errors. For further information, see Note 6 to the consolidated financial statements.

⁽²⁾ voxeljet AG has initially applied IFRS 15 and IFRS 9 as of January 1, 2018. Under the transition methods chosen, comparative information has not been restated. For further information, see Note 3 to the consolidated financial statements.

voxeljet AG

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2018	2017 ^{(1) (2)}	2016 ⁽²⁾
	(€ in thousands)		
Cash Flow from operating activities			
Loss for the period	(8,764)	(8,554)	(11,313)
Depreciation and amortization	3,506	3,163	2,542
Foreign currency exchange differences on loans to subsidiaries	(340)	1,056	1,092
Impairment losses on goodwill and intangible assets	--	--	1,130
Equity-settled share-based payment transaction in relation to the establishment of a subsidiary with non-controlling interest	--	--	256
Share-based compensation expense	604	386	--
Impairment losses on trade receivables	227	237	367
Non-cash interest expense on long-term debt	781	17	--
Change in fair value of derivative equity forward	(1,877)	(352)	--
Change in inventory allowance	(417)	(515)	954
Other	68	105	56
Change in working capital	(1,502)	(2,373)	(8,422)
Trade and other receivables, inventories and current assets	(1,556)	(2,697)	(6,784)
Trade payables	(310)	629	(27)
Other liabilities and provisions and deferred income	375	(310)	(1,657)
Income tax payable/receivables	(11)	5	46
Total	(7,714)	(6,830)	(13,338)
Cash Flow from investing activities			
Payments to acquire property, plant and equipment and intangible assets	(3,812)	(3,626)	(3,700)
Proceeds from disposal of financial assets	10,475	4,077	34,979
Payments to acquire financial assets	(8,690)	(5,542)	(15,827)
Other	--	156	14
Total	(2,027)	(4,935)	15,466
Cash Flow from financing activities			
Repayment of bank overdrafts and lines of credit	(58)	(167)	(159)
Repayment of sale and leaseback obligation	(324)	(383)	(535)
Repayment of finance lease obligation	(37)	(51)	(36)
Repayment of long-term debt	(2,764)	(732)	(378)
Proceeds from issuance of long-term debt	1,639	12,612	4,724
Proceeds from issuance of shares	11,088	--	--
Total	9,544	11,279	3,616
Net increase (decrease) in cash and cash equivalents	(197)	(486)	5,744
Cash and cash equivalents at beginning of period	7,569	7,849	2,086
Changes to cash and equivalents due to foreign exchanges rates	30	206	19
Cash and cash equivalents at end of period	7,402	7,569	7,849
Supplemental Cash Flow Information			
Interest paid	231	210	201
Interest received	42	16	39
Income taxes paid	--	--	2
Property, plant and equipment added under finance lease	--	123	57

See accompanying notes to these consolidated financial statements.

⁽¹⁾ Comparative figures for the year ended December 31, 2017 were restated for immaterial errors. For further information, see Note 6 to the consolidated financial statements.

⁽²⁾ voxeljet AG has initially applied IFRS 15 and IFRS 9 as of January 1, 2018. Under the transition methods chosen, comparative information has not been restated. For further information, see Note 3 to the consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Basis of preparation

1. The reporting entity

voxeljet AG (in the following referred to as '*voxeljet*', 'Group', or the '*Company*') is a high-tech company headquartered in Friedberg, Germany. The *Company* consists of *voxeljet* AG, *voxeljet* America Inc. (*voxeljet* America), *voxeljet* UK Ltd. (*voxeljet* UK), *voxeljet* India Pvt. Ltd (*voxeljet* India) and *voxeljet* China Co., Ltd. (*voxeljet* China). *voxeljet* AG owns 100% of the issued and outstanding shares of *voxeljet* America, *voxeljet* UK and *voxeljet* India, as well as 95.83% of *voxeljet* China. As a manufacturer of three-dimensional ("3D") printing systems, *voxeljet* specializes in the development, production and distribution of industrial printing machines and the production and sale of customized printed products to industrial customers. The *Company* operates in two business divisions: Systems and Services. The *voxeljet* Systems business division develops, manufactures and sells innovative 3D printers. Today, *voxeljet* has a product range that reaches from smaller entry models to large-format machines, and therefore offers 3D printer systems for a wide range of application areas.

Through its Services business division, the *Company* offers customized printed products such as sand molds and plastic models based on CAD data through its 'on-demand production' service centers. In addition, the *Company* offers casting services to its customers. In those cases, the casting process is performed by external suppliers supported by *voxeljet*'s molds and models. Small-batch and prototype manufacturers utilize the *Company*'s machines for the automatic, patternless manufacture of their casting molds and 3D models. The *Company*'s customer base includes automotive manufacturers, aerospace industries, foundries and suppliers as well as companies from the arts and design industries as well as universities and research institutes.

2. Preparation of financial statements

The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards (IFRS) as set forth by the International Accounting Standards Board (IASB) and interpretations of the IFRS Interpretations Committee (IFRIC).

The consolidated financial statements were authorized for issue by the Management Board on March 28, 2019.

These consolidated financial statements were prepared on the basis of historical cost except for the following items, which are measured on an alternative basis on each reporting date.

Debt securities at fair value through other comprehensive income (2017: Available-for-sale financial assets)	Fair value
Non-derivative financial instruments at fair value through profit or loss	Fair value
Monetary assets and liabilities denominated in foreign currencies	Mandatorily at FVTPL
Derivative financial instruments	Fair value

The consolidated financial statements are presented in thousands of Euros (kEUR) except where otherwise stated. Due to rounding, numbers presented throughout these notes may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

The consolidated financial statements have been prepared on the assumption that the Group will continue as a going concern.

Correction of errors

Certain comparative amounts in the consolidated statements of financial position, consolidated statements of comprehensive loss, consolidated statements of changes in equity, and consolidated statements of cash flows have been restated to correct for immaterial errors with respect to the elimination of margin on certain intra-group transactions. The impact of this restatement is disclosed in Note 6. Throughout the consolidated financial statements, columns including comparative figures that have been restated, are indicated with ⁽¹⁾.

3. Summary of significant accounting policies

The principal accounting policies applied in the preparation of these financial statements are set out below. Except as described below, these policies have been consistently applied to all years presented.

The Group has initially adopted IFRS 15, Revenue from Contracts with Customers, and IFRS 9, Financial Instruments, on January 1, 2018. A number of other new standards are effective from January 1, 2018 but these do not have a material effect on the Company's consolidated financial statements. Changes to significant accounting policies are described below.

Due to the transition methods chosen by the Group in applying these standards, comparative information throughout these financial statements has not been restated to reflect the requirements of the new standards.

Consolidation

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

Intercompany balances and transactions are eliminated in preparing the consolidated financial statements.

A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities. Interests in the joint venture are accounted for using the equity method. They are initially recognized at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Group's share of the profit or loss and other comprehensive income of equity-accounted investees, until the date on which significant influence or joint control ceases.

Revenues from contracts with customers

IFRS 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognized. It replaced IAS 18, *Revenue*, IAS 11, *Construction Contracts*, and related interpretations. The Group has adopted IFRS 15 using the cumulative effect method, with the effect of initially applying this standard recognized at the date of initial application (i.e. January 1, 2018). Accordingly, the information presented for 2017 has not been restated – i.e. it is presented, as previously reported, under IAS 18, IAS 11 and related interpretations. Additionally, the disclosure requirements in IFRS 15 have not generally been applied to comparative information.

The adoption of IFRS 15 resulted in minor impacts related to the revenue recognition regarding the revenue streams from maintenance as well as extended warranty contracts. Those impacts include immaterial timing differences for revenue recognition related to these types of contracts with customers. The new guidance is not expected to have a material impact to net income (loss) on an ongoing basis.

The following table summarizes the impact of transition to IFRS 15 on retained earnings as of January 1, 2018.

Impact at January 1, 2018	Impact on adopting IFRS 15 at January 1, 2018 (€ in thousands)
Retained earnings	(100)
Recognition of revenues from maintenance and extended warranty contracts	(100)

[Table of Contents](#)

The following tables summarize the impacts of adopting IFRS 15 on the Company's consolidated statement of financial position as of December 31, 2018 and its consolidated statement of comprehensive loss for the year then ended for each of the line items affected. There was no material impact on the Company's consolidated statements of cash flows for the year ended December 31, 2018.

12/31/2018	As reported	Adjustments (€ in thousands)	Amounts without adoption of IFRS 15
Total assets	69,352	(405)	68,947
Current assets	37,936	(405)	37,531
Trade receivables	6,030	(405)	5,625
Total equity and liabilities	69,352	(405)	68,947
Current liabilities	6,302	(424)	5,878
Deferred income	—	228	228
Contract liabilities	817	(817)	—
Other liabilities and provisions	1,690	165	1,855
Equity	46,475	19	46,494
Accumulated deficit	(46,400)	19	(46,381)

A contract liability is recognized when the Company has received consideration (i.e. advance payment) from customers before satisfying a performance obligation, or has an unconditional right to payment under a non-cancellable contract before it transfers the related goods or services to the customer under maintenance and extended warranty contracts. Upon the adoption of IFRS 15, the Company reclassified the deferred income balance, which represents advance payment from customers, to contract liabilities.

12/31/2018	As reported	Adjustments (€ in thousands)	Amounts without adoption of IFRS 15
Revenue	26,009	(81)	25,928
Impairment loss on trade receivables under IFRS 15	(10)	10	—
Operating loss	(9,562)	(71)	(9,633)
Loss before income taxes	(8,753)	(71)	(8,824)
Net loss	(8,764)	(71)	(8,835)
Total comprehensive loss	(8,943)	(71)	(9,014)

The following table provides information about receivables and contract liabilities from contracts with customers.

Note	December 31, 2018 (€ in thousands)	January 1, 2018
Receivables, which are included in 'trade and other receivables'	6,030	5,270
Contract liabilities	817	507

Upon adoption of IFRS 15, the Company changed the accounting policy on the revenue recognition relating to maintenance contracts are set out below.

Under IFRS 15, the Company recognizes revenue on the maintenance contracts based on the input method, such as the number of service visits or the provision of certain goods, in particular printheads, to measure the progress that depicts the transfer of control of the goods or services to the customer toward complete satisfaction of a performance obligation over time. Therefore the expected number of service visits and goods to be provided under a contract have been estimated by the Company's service department based on historical experience. Under IAS 18, the Company recognized revenue on a straight-line basis over the contract term.

[Table of Contents](#)

IFRS 15 did not have a significant impact on the Group's accounting policies with respect to other revenue streams.

Revenue on the sale of new or refurbished 3D printers is recognized on at the point in time after completed installation of 3D printers at the customer site and evidenced through final acceptance by the customer. Customers obtain control of the 3D printers when the customers have accepted the assets.

From time to time, refurbished 3D printers which have been operating at the Company's service centers for an average of 1.5 to 2.5 years, are routinely sold to customers. Prior to sale, such printers are fully refurbished, which includes the installation of a new printhead.

The Group provides customers with statutory warranty on all 3D printers for one year. The warranty presents assurance-type warranty and is not treated as a separate performance obligation. After the initial one-year warranty period, the Group offers its customers optional maintenance contracts, which are considered as individual performance obligations.

The Company, from time to time, offers to customers, to operate their purchased 3D printer and perform 3D printing on custom-ordered printed products for a temporary period before the customers' facility is configured according to required technical specifications. The Company recognizes revenue for the use of space on Company premises over time under the term of the contracts. The Company recognizes revenue from the sale of customized printed products from the customer's purchased 3D printer, upon transfer of the significant risks and rewards of ownership to the customers, generally upon shipment.

Revenue on the sale of customized printed products at the point in time when the significant risks and rewards of ownership of the assets is transferred to the customers, generally upon shipment.

Shipping, packaging and handling costs billed to customers for the sales of customized printed products and consumables are considered as separate performance obligation where the Company acts as a principal for the transportation service. The Company recognized the gross revenue at the point in time as the service is provided, i.e. upon shipment. Costs incurred by the Company associated with shipping, packaging and handling are included in selling expenses in the consolidated statements of comprehensive loss.

Invoices from revenue streams besides the sale of new or refurbished 3D printers are usually payable within 30 to 60 days. The Company also recognizes that longer payment periods are customary in some countries where it transacts business. To reduce credit risk in connection with machine sales, the Company may, depending upon the circumstances, require advance payments prior to shipment. On the sale of new or refurbished 3D printers, the Company generally require advance payments in full prior to shipment and require international customers to furnish letters of credit. These advance payments are recognized as contract liabilities. Maintenance contracts are generally billed to customers in advance on a monthly, quarterly, or annual basis, and are initially recorded as a contract liability as the Company has an enforceable right to payment after the contract has been signed.

The amount of revenue recognized for the fiscal year ended December, 31 2018 from performance obligations satisfied (or partially satisfied) in previous periods is € 0.1 million. This is mainly due to changes in the revenue recognition method on maintenance contracts.

The contract liabilities primarily relate to (1) the advance consideration received from customers before satisfying a performance obligation, or an unconditional right to payment under a non-cancellable contract before it transfers the related goods or services to the customer under maintenance contracts, for which revenue is recognized over time; and (2) the advance consideration received from customers for the sale of new or refurbished 3D printers, for which revenue is recognized when the customer has accepted the assets. The total amount of unfulfilled performance obligations for 3D printer sales and long term volume contracts is € 4.9 million. The Company expects to realize approximately 56% of such amount in 2019 and the remainder in 2020. The contract liabilities at the beginning of the current year have been fully recognized as revenue for the fiscal year ended December 31, 2018.

[Table of Contents](#)

In the following table, revenue from contracts with customers is disaggregated by primary geographical market, and timing of revenue recognition. The table also includes a reconciliation of the disaggregated revenue with the Group's reportable segments (see Note 20).

	Year ended December 31,			
	SYSTEMS		SERVICES	
	2018	2017	2018	2017
Primary geographical markets				
EMEA	5,592	6,717	9,081	8,115
Asia Pacific	4,704	1,760	746	766
Americas	1,952	3,057	3,934	2,763
	<u>12,248</u>	<u>11,534</u>	<u>13,761</u>	<u>11,644</u>
Timing of revenue recognition				
Products transferred at a point in time	11,188	10,627	13,761	11,644
Products and services transferred over time	1,060	907	--	--
Revenue from contracts with customers	<u>12,248</u>	<u>11,534</u>	<u>13,761</u>	<u>11,644</u>

In 2018, *voxeljet* leased two 3D printers (2017: one 3D printer and 2016: five 3D printers) to customers under operating leases. Rental income is recognized on a straight-line basis over the term of the lease as revenue and is reported within the Systems segment.

Financial instruments

The adoption of IFRS 9 resulted in a minor increase in impairment losses recognized on trade receivables.

IFRS 9 sets out requirements for recognizing and measuring financial assets, financial liabilities and some contracts to buy or sell non-financial items. This standard replaces IAS 39, Financial Instruments.

The Company has applied the exemption not to restate comparative information for prior periods with respect to classification and measurement (including impairment) requirements. Differences in the carrying amounts of financial assets and financial liabilities resulting from the adoption of IFRS 9 are recognized in retained earnings and reserves as of January 1, 2018. Accordingly, the information presented for 2017 does not reflect the requirements of IFRS 9 but rather those of IAS 39.

The details of new accounting policies under IFRS 9 and the nature and effect of the changes to previous accounting policies are set out below.

The following table summarizes the impact, net of tax, of transition to IFRS 9 on the opening balance of retained earnings.

Impact at January 1, 2018	Impact on adopting IFRS 9 on opening balance (€ in thousands)
Retained earnings	63
Recognition of additional expected credit losses under IFRS 9	63

Classification and measurement of financial assets and financial liabilities

IFRS 9 largely retains the existing requirements in IAS 39 for the classification and measurement of financial liabilities. However, it eliminates the previous IAS 39 categories for financial assets of held to maturity, loans and receivables and available for sale.

Under IFRS 9, on initial recognition, a financial asset is classified as measured at: amortized cost, fair value through other comprehensive income (FVOCI), or fair value through profit or loss (FVTPL). The classification of

financial assets under IFRS 9 is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics.

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as at FVTPL:

- it is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding

On initial recognition of an equity investment that is not held for trading, the Company may irrevocably elect to record subsequent changes in the investment's fair value in OCI. This election is made on an investment-by-investment basis.

All financial assets not classified as measured at amortized cost or FVOCI as described above are measured at FVTPL. This includes all derivative financial assets. On initial recognition, the Company may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortized cost or at FVOCI as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

A financial asset (unless it is a trade receivable without a significant financing component that is initially measured at the transaction price) is initially measured at fair value plus, for an item not at FVTPL, transaction costs that are directly attributable to its acquisition.

Under IFRS 9, our investments in bond fund are classified as fair value through other comprehensive income (FVOCI). As permitted by IFRS 9, the Company has designated these investments at the date of initial application as measured at FVOCI.

Under IAS 39 as well as upon adoption of IFRS 9, our derivative financial instruments have been designated as at FVTPL.

Impairment of financial assets

IFRS 9 replaces the 'incurred loss' model in IAS 39 with an 'expected credit loss' (ECL) model. The new impairment model applies to financial assets measured at amortized cost, FVOCI and contract assets. Under IFRS 9, credit losses are recognized earlier than under IAS 39.

The Company's financial assets at amortized cost consist of trade receivables and cash and cash equivalents. For cash and cash equivalents the adoption of IFRS 9 did not have any impact regarding impairment.

Under IFRS 9, loss allowances are measured on either of the following bases:

- 12-months ECLs: these are ECLs that result from possible default events within the 12 months after the reporting date; or
- lifetime ECLs: these are ECLs that result from all possible default events over the expected life of a financial instrument.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Company considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's historical experience and informed credit assessment and including forward-looking information.

The Company considers an investment to have low credit risk when its credit risk rating is equivalent to the globally understood definition of 'investment grade'. The Company limits its exposure to credit risk by investing only in bond funds which are fully guaranteed by the financial institutions and therefore represents short term credit rating of A-3 based on Standard & Poor's or P-2 based on Moody's.

[Table of Contents](#)

Trade receivables

The Company considers trade receivables which are in default individually prior to the application of the ECL model to the remaining population. The Company measures loss allowances for trade receivables at an amount equal to lifetime ECLs. ECLs are a probability-weighted estimate of credit losses. The Company calculates the ECL based on the risk scoring its customers' according to an external rating agency. Following the risk score of each customer, the trade receivables are clustered into different grades. For each grade, the ECL is calculated after deducting from trade receivables a loss allowance based on actual credit loss experience. In addition the Company uses qualitative assessment of the trade receivables, where default has incurred.

Debt securities

The Group considers debt securities to have low credit risk when its credit risk rating is equivalent to the globally understood definition of 'investment grade'. The Group limits its exposure to credit risk by investing only in bond funds which are fully guaranteed by the financial institutions and therefore represents short term credit rating of A-3 based on Standard & Poor's or P-2 based on Moody's.

Presentation of impairment

Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets and presented within other operating expenses.

Impairment losses on financial assets classified as FVTPL and FVOCI are presented within the finance expense and other comprehensive income, respectively.

The following table presents the original measurement categories under IAS 39 and the new measurement categories under IFRS 9 for each class of the Company's financial assets and financial liabilities as of January 1, 2018.

[Table of Contents](#)

The effect of adopting IFRS 9 on the carrying amounts of financial assets at January 1, 2018 relates solely to the new impairment requirements.

01/01/2018	Original classification under IAS 39	New classification under IFRS 9	Original carrying amount under IAS 39	New carrying amount under IFRS 9
			(€ in thousands)	
Financial assets			27,063	27,000
Non-current assets				
Equity securities	Available-for-sale financial assets	FVOCI	5	5
Derivative financial instruments	A financial asset or financial liability at fair value through profit or loss	Mandatorily at FVTPL	352	352
Current assets				
Bond funds	Available-for-sale financial assets	FVOCI	14,044	14,044
Cash and cash equivalents	Loans and receivables	Amortized cost	7,569	7,569
Trade receivables	Loans and receivables	Amortized cost	5,093	5,030
Financial liabilities			20,416	20,416
Non-current liabilities				
Long-term debt	Financial liabilities measured at amortized cost	Amortized cost	16,242	16,242
Finance lease obligation	Financial liabilities measured at amortized cost	Amortized cost	171	171
Current liabilities				
Bank overdraft	Financial liabilities measured at amortized cost	Amortized cost	58	58
Long-term debt	Financial liabilities measured at amortized cost	Amortized cost	796	796
Finance lease obligation	Financial liabilities measured at amortized cost	Amortized cost	308	308
Trade payables	Financial liabilities measured at amortized cost	Amortized cost	2,841	2,841

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

	IAS 39 carrying amount at 31, December 2017	Reclassification	Remeasurement	IFRS 9 carrying amount at 1, January 2018
(€ in thousands)				
Financial assets				
Amortized cost				
Trade and other receivables:				
Brought forward: <i>Loans and receivables</i>	5,093	--	--	--
Remeasurement	--	--	63	--
Carried forward: <i>Amortized cost</i>	--	--	--	5,030
Total amortized cost	5,093	--	63	5,030

Impact of the new impairment model

For assets in the scope of the IFRS 9 impairment model, impairment losses are generally expected to increase and become more volatile. The Company has determined that the application of IFRS 9's impairment requirements at January 1, 2018 results in an additional impairment allowance as follows.

	(€ in thousands)
Loss allowance at December 31, 2017 under IAS 39	482
Additional impairment recognized at January 1, 2018 on:	
Trade and other receivables as at December 31, 2017	62
Additional trade receivables recognized on adoption of IFRS 15	1
Loss allowance at January 1, 2018 under IFRS 9	545

The following tables provide information about the exposure to credit risk and ECLs for trade receivables as of January 1, 2018 and December 31, 2018. This was calculated after a specific assessment of the trade receivables and after recording a specific debt allowance.

January 1, 2018						
Grades		Equivalent to external credit rating (Standard & Poor's)	Weighted- average loss rate	Gross carrying amount	Impairment loss allowance	Net carrying amount
(€ in thousands)						
Grades 1-4:	Low risk	BBB+ to AAA	0.2%	3,274	5	3,269
Grades 5-7:	Fair risk	B+ to BBB	1.3%	1,674	22	1,652
Grades 8-9:	Substandard	CCC- to B	7.0%	363	25	338
Grade 10:	Doubtful	C to CC	25.0%	14	3	11
Grade 11:	Loss	D	100.0%	8	8	--
				5,333	63	5,270

December 31, 2018						
Grades		Equivalent to external credit rating (Standard & Poor's)	Weighted- average loss rate	Gross carrying amount	Impairment loss allowance	Net carrying amount
(€ in thousands)						
Grades 1-4:	Low risk	BBB+ to AAA	0.2%	3,274	5	3,269
Grades 5-7:	Fair risk	B+ to BBB	1.3%	2,171	29	2,142
Grades 8-9:	Substandard	CCC- to B	7.0%	648	45	603
Grade 10:	Doubtful	C to CC	25.0%	22	6	16
Grade 11:	Loss	D	100.0%	72	72	--
				6,187	157	6,030

Cash and cash equivalents

Cash and cash equivalents are short-term bank deposits and are not subject to a significant risk of change in value.

Research and development expenses

All research and development costs are charged to expense as incurred.

Government grants

Government grants awarded for project funding are recorded within other operating income in the consolidated statement of comprehensive loss if the related research and development costs have been incurred and provided that the conditions for the funding have been met. Until then, amounts received under government grants are recorded as deferred income in the statements of financial position.

Leases

Operating leases consist of various lease agreements for the rental of manufacturing facilities, office and warehouse space, vehicles, and office and IT equipment, expiring in various years through 2020. Rent expense under operating leases is charged to profit or loss on a straight-line basis over the term of the lease.

Long Term Cash Incentive Plan

voxeljet has a Long-Term Cash Incentive Plan ("LTCIP"), a cash-settled share-based payment arrangement, that provides for cash awards to non-executive employees. Compensation cost is determined based on the grant-date fair value of the awards and recognized, net of estimated forfeitures due to termination of employment, on a straight-line basis over the requisite service period of the award and depending on the evaluation of certain performance and market conditions. The requisite service period is generally the vesting period stated in the award. The liability for these awards is measured at fair value at each reporting date until settlement and is classified within "other liabilities and provisions in the consolidated statement of financial position. As of December 31, 2017 the targets were not achieved and the LTCIP ceased.

Employee stock option plan

In April 2017, the Supervisory Board adopted and approved Option Plan 2017. The plan authorizes to grant shares of equity-settled stock options to employees and members of the management board. The *Company's* stock-based compensation expense is estimated at the grant date based on the fair value of the award and is recognized as expense ratably over the requisite service period of the award. The Company calculates the fair value of each option award on the date of grant under the Monte Carlo simulation model. The determination of the grant date fair value of the awards using a simulation model is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. These variables include the expected stock price volatility over the expected life of the awards, risk-free interest rates, and expected dividends. The risk free interest rate is equal to the U.S. Treasury constant maturity rates for the period equal to the expected life. The Company does not currently pay cash dividends on common stock and does not anticipate doing so in the foreseeable future. Accordingly, the expected dividend yield is zero.

Foreign currencies

The financial statements are presented in Euros, the functional currency of *voxeljet AG*.

Monetary transactions denominated in foreign currencies are translated to Euros at the exchange rates prevailing on the transaction date.

The financial statements of foreign subsidiaries are translated using the concept of the functional currency in accordance with IAS 21. The assets and liabilities of foreign subsidiaries are translated at the spot rate at the end of the period, while their income statement items are translated at average exchange rates for the respective periods. All resulting exchange differences are recognized in other comprehensive income. Gains and losses on foreign currency transactions are shown within other operating income and other operating expenses, respectively, in the consolidated statement of comprehensive loss.

The loans provided to *voxeljet AG's* subsidiaries are not considered as net investments in foreign operations. Therefore, gains or losses from foreign exchange differences thereon are recognized in the statement of other comprehensive loss as "other operating income or expenses".

[Table of Contents](#)

The exchange rates that are most relevant for *voxeljet's* consolidated financial statements are as follows:

Average exchange rates to Euro

December 31,	Average Rate			
	USD	GBP	INR	CNY
2018	1.1810	0.8847	80.7332	7.8081
2017	1.1297	0.8767	73.5324	7.6290
2016	1.1069	0.8195	74.3717	7.3522

Year end exchange rates to Euro

December 31,	Year End Rate			
	USD	GBP	INR	CNY
2018	1.1450	0.8945	79.7298	7.8751
2017	1.1993	0.8872	76.6055	7.8044

Income Tax

Income tax expense (benefit) consists of current and deferred tax expense and benefit in accordance with IAS 12.

Current income tax expense (benefit) is based on taxable profit (loss) for the year. Taxable profit (loss) differs from profit (loss) as reported in the statements of comprehensive income (loss) because it excludes items of income or expense that are taxable or deductible in other years and further excludes items that are never taxable or deductible. Current income tax expense (benefit) is calculated using tax rates that have been enacted or substantively enacted by the end of the respective reporting period.

Deferred income tax expense (benefit) is recognized on temporary differences between the carrying amounts of assets and liabilities in the statement of financial position and the corresponding tax basis used in the computation of taxable profit (loss).

Deferred tax liabilities are generally recognized for all taxable temporary differences and deferred tax assets, including for carry forward losses to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilized. The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer more probable than not that sufficient taxable profits will be available to allow all or a part of the assets to be recovered.

Deferred tax expense (benefit) is calculated at the tax rates that are expected to apply in the periods when the liability is settled or the asset is realized, based on tax rates (and tax regulations) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the *Company* expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities. Deferred tax expense (benefit) is charged or credited to profit or loss, except when it relates to items charged or credited directly to equity, in which case the deferred taxation is also recorded to equity.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off tax assets against tax liabilities and when they relate to income taxes levied by the same taxation authority and the *Company* intends to settle its current tax assets and liabilities on a net basis.

Intangible Assets

Intangible assets, including software, licenses and customer relationships, that are acquired by the *Company* and have a finite useful life are measured at cost less accumulated amortization and any impairment losses. Amortization for intangible assets with finite useful lives is recognized on a straight-line basis over their useful lives.

The amortization of licenses is allocated to the cost of inventory and is included in cost of sales as 3D printers are sold; the amortization of software is mainly included in selling and administrative expenses.

The estimated useful economic lives of acquired intangible assets are presented in the following table:

USEFUL LIFE OF INTANGIBLE ASSETS

Software	3-5 years
Licenses	6-8 years

An intangible asset is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the item) is included in profit or loss in the period in which the item is derecognized.

Property, Plant and Equipment

Property, plant and equipment is carried at acquisition or manufacturing cost (for internally manufactured printers used in the Services segment) and depreciated on a straight-line basis over the estimated useful lives of the related assets, taking into account estimated residual values. Except the sale of used printers, realized gains and losses are recognized upon disposal or retirement of the related assets and are reflected within other operating income or other operating expenses in the consolidated statement of comprehensive loss. Subsequent expenditures are capitalized only if it is probable that *voxeljet* will receive additional economic benefits from the particular asset associated with these expenditures, and the costs can be determined reliably. Repair and maintenance expenditures are expensed as incurred. Leased assets are depreciated over the shorter of the lease term and their useful lives unless it is reasonably certain that the *Company* will obtain ownership by the end of the lease term. In those cases the assets are depreciated over their useful lives. Land is not depreciated. Additions to property, plant and equipment relating to self-constructed 3D printers are considered non-cash transactions.

The estimated useful economic lives of items of property, plant and equipment are as follows:

USEFUL LIFE OF PROPERTY, PLANT AND EQUIPMENT

Leasehold improvements	6-9 years
Buildings	33 years
Plant and machinery	7-8 years
Printers leased to customers under operating lease	7-8 years
Other facilities, machinery and factory equipment	2-20 years
Office equipment	3-12 years

Useful lives, depreciation methods and residual values are reviewed at least annually and, in case they change significantly, depreciation charges for current and future periods are adjusted accordingly.

Inventories

Raw materials

Raw materials are measured at the lower of acquisition cost, as determined on the weighted average costs method, and net realizable value. Obsolete inventories are written off directly into cost of sales.

Work in progress and finished goods

Work in progress and finished goods are measured at the lower of manufacturing cost and net realizable value. Manufacturing costs comprise all costs that are directly attributable to the manufacturing process, such as direct material and labor, and production related overheads (based on normal operating capacity and normal consumption of material, labor and other production costs), including depreciation charges. Net realizable value is defined as the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs of the sale. For purposes of determining net realizable value, selling expenses include all costs expected to be incurred to make the sale, primarily shipping, packaging and handling as well as commissions.

[Table of Contents](#)

We also use our own printers in our service centers. Unfinished printers are generally available to be sold if a customer requests a product with a specification which can be met by one of the products in progress. Accordingly, we classify printers as inventory until we remove a finished printer from our manufacturing warehouse to use it in a service center. The reclassification as property, plant and equipment, as a non-cash transaction, occurs at cost and depreciation starts at inception of service.

We evaluate the adequacy of our inventory reserves on a periodic basis in order to determine the need for an inventory reserve.

Impairment of non-financial assets

The *Company* assesses at the end of each reporting period whether there is an indication that a non-financial asset may be impaired. Such assets are tested for impairment if there are indicators that the carrying amounts may not be recoverable. An impairment loss is recognized in the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is defined as the higher of an asset's fair value less cost to sell and its value in use. As individual assets do not generate largely independent cash flows, impairment testing is performed at the cash generating unit level. An individual fixed asset within a CGU cannot be written-down below fair value less cost incurred to sell the individual asset.

Earnings (loss) per share

Basic earnings per share amounts are calculated by dividing profit (loss) by the weighted average number of ordinary shares outstanding. There are no dilutive instruments issued and outstanding.

	2018	2017
	(in thousands of shares)	
Issued ordinary shares at 1 January	3,720	3,720
Effect of shares issued on October 17, 2018	192	--
Effect of shares issued on November 8, 2018	29	--
Weighted-average number of ordinary shares at 31 December	3,941	3,720

4. New standards and interpretations not yet adopted

The IASB issued a number of new IFRS standards or amendments to existing standards which are required to be adopted in annual periods beginning after December 31, 2018.

Standard	Effective date	Descriptions
IFRS 9	01/2019	Amendments Prepayment Features with Negative Compensation
IFRS 16	01/2019	Leases
IAS 19	01/2019	Amendments Plan Amendment, Curtailment or Settlement
IAS 28	01/2019	Amendments Long-term Interests in Associates and Joint Ventures
IFRIC 23	01/2019	Uncertainty over Income Tax Treatments
Improvements to IFRS (2015-2017)	01/2019	IFRS 3, IFRS 11, IAS 12, IAS 23
Others	01/2020	Amendments References to the Conceptual Framework in IFRS Standards 3
IFRS 3	01/2020	Amendment Definition of a business
IAS 1, IAS 8	01/2020	Amendment, Amendment Definition of material
IFRS 17	01/2021	Insurance Contracts
IFRS 10, IAS 28	indefinite	Amendment Sale or Contribution of Assets between Investor and its Associate or Joint Venture

Of those standards that are not yet effective, IFRS 16 is expected to have a material impact on the Company's financial statements in the period of initial application.

The Company is required to adopt IFRS 16 Leases from January 1, 2019. The Company has assessed the estimated impact that initial application of IFRS 16 will have on its consolidated financial statements, as described below.

[Table of Contents](#)

IFRS 16 introduces a single, on-balance sheet lease accounting model for lessees. A lessee recognizes a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are recognition exemptions for short-term leases (term less than 12 months) and leases of low-value items (value less than kUSD 5). Lessor accounting remains similar to the current standard – i.e. lessors continue to classify leases as finance or operating leases.

IFRS 16 replaces existing leases guidance, including IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Leases – Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.

Leases under which the voxeljet Group is a lessee

The Group will recognize new assets and liabilities for its operating leases of factory facilities, vehicles and certain equipment. The nature of expenses related to these leases will now change because the Group will recognize a depreciation charge for right-of-use assets and interest expense on lease liabilities.

Previously, the Group recognized operating lease expense on a straight-line basis over the term of the lease, and recognized assets and liabilities only to the extent that there was a timing difference between actual lease payments and the expense recognized.

We do not expect significant impacts for the Company's finance leases.

Leases under which the voxeljet Group is a lessor

No significant impact is expected for the operating leases in which the Group is a lessor.

Transition

The Group will apply IFRS 16 initially on January 1, 2019, using the modified retrospective approach. Therefore, the cumulative effect of adopting IFRS 16 will be recognized as an adjustment to the opening balance of retained earnings at January 1, 2019, with no restatement of comparative information.

The Group plans to apply the practical expedient to grandfather the definition of a lease on transition. This means that it will apply IFRS 16 to all contracts entered into before 1 January 1, 2019 and identified as leases in accordance with IAS 17 and IFRIC 4.

Based on an analysis conducted as part of the group-wide project on initial application, the Company expects that on January 1, 2019 right-of-use assets of approximately € 3.8 million and additional lease liabilities of approximately € 3.8 million will be presented on the consolidated statement of financial position.

5. Critical accounting judgment and key sources of estimation and uncertainty

In the process of applying the *Company's* accounting policies, Management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. These estimates and associated assumptions are based on the knowledge available as of the preparation date of the financial statements and historical experiences as well as other factors that are considered to be relevant. The estimates and underlying assumptions are reviewed on an ongoing basis.

Developments outside management's control may cause actual amounts to differ from the original estimates. In that case, the underlying assumptions and, if necessary, the carrying amounts of the pertinent assets and liabilities are adjusted accordingly. Revisions to accounting estimates are recognized in the period in which the estimate is revised, if the revision affects only that period, or in the period of the revision and future periods, if the revision affects both current and future periods.

The assumptions and estimates refer primarily to the recognition of revenue, valuation of bad debt allowance, valuation of inventory, and the valuation of derivative financial instruments (relating to the Performance Participation Interest on the loan with the European Investment Bank).

The key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

Revenue recognition

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

Revenue on the sale of new or refurbished 3D printers is recognized at the point in time after completed installation of 3D printers at the customer site and evidenced through final acceptance by the customer. Customers obtain control of the 3D printers when the customers have accepted the assets.

The Company recognizes revenue on the maintenance contracts for 3D printers by applying the input method to measure the progress that depicts the transfer of control of the goods or services to the customer toward complete satisfaction of a performance obligation over time. The determination of the expected number of service visits and goods to be provided under a contract require significant judgment have been estimated by the Company's service department based on historical experience.

Expected credit losses on trade receivables

Loss allowances are recognized for estimated losses resulting from customers' inability to meet payment obligations. Upon the adoption of IFRS 9, the Group applies a simplified approach to recognizing a loss allowance on trade receivables based on measurement of lifetime expected credit losses arising from trade receivables. Estimation and judgment are required in determining the value of loss allowances at each reporting date. The Company evaluates customer accounts with past-due outstanding balances or specific accounts for which it has information that the customer may be unable to meet its financial obligations. Based upon qualitative assessment of these accounts and Management's analysis and judgment, the Company estimates the future cash flows expected to be recovered from these receivables. The amount of the impairment on doubtful receivables is measured individually and recorded as a specific allowance against that customer's receivable balance so as to equal the amount expected to be recovered.

ECLs are a probability-weighted estimate of credit losses. The Company calculates the ECL based on the risk scoring its customers' according to an external rating agency. Following the risk score of each customer, the trade receivables are clustered into different grades. For each grade, the ECL is calculated after deducting from trade receivables a loss allowance based on actual credit loss experience.

6. Correction of errors

During the preparation of the consolidated interim financial statements for the three-month and nine-month periods ended September 30, 2018, the Company became aware that the margin within certain intra-group transactions has not been properly eliminated in the consolidation process, resulting in misstatement of cost of sales in its consolidated financial statements since the first quarter in fiscal year 2017. These errors have been corrected by restating each of the affected financial statement line items for prior periods. The Company has evaluated the effect of these errors, both qualitatively and quantitatively, and concluded that the corrections did not have a material impact on, nor require amendment of, any previously filed financial statements. The following tables summarize the impacts on the Company's consolidated financial statements.

Consolidated statement of financial position

December 31, 2017

	Impact of correction of error		
	As previously reported	Adjustments	As corrected
	(€ in thousands)		
Current assets	37,774	(280)	37,494
Inventories	9,539	(280)	9,259
Non-current assets	29,257	251	29,508
Property, plant and equipment	27,698	251	27,949
Total assets	67,031	(29)	67,002
Equity	43,918	(29)	43,889
Accumulated deficit	(37,480)	(29)	(37,509)
Total equity and liabilities	67,031	(29)	67,002

Consolidated statement of comprehensive loss

	Impact of correction of error three months ended December 31, 2017			Impact of correction of error year ended December 31, 2017		
	As previously reported	Adjustments	As corrected	As previously reported	Adjustments	As corrected
	(€ in thousands except share and share data)			(€ in thousands except share and share data)		
Cost of sales	(3,662)	158	(3,504)	(13,824)	(29)	(13,853)
Gross profit	2,446	158	2,604	9,354	(29)	9,325
Operating loss	(2,633)	158	(2,475)	(8,620)	(29)	(8,649)
Net loss	(2,460)	158	(2,302)	(8,525)	(29)	(8,554)
Total comprehensive loss	(2,352)	158	(2,194)	(8,020)	(29)	(8,049)
Loss attributable to owners of the company	(2,458)	158	(2,300)	(8,509)	(29)	(8,538)
Total comprehensive loss attributable to owners of the company	(2,350)	158	(2,192)	(8,004)	(29)	(8,033)
Loss per share - basic/ diluted (EUR)	(0.66)	0.04	(0.62)	(2.29)	(0.01)	(2.30)

Segment reporting

	Impact of correction of error three months ended December 31, 2017					
	As previously reported		Adjustments		As corrected	
	(€ in thousands)					
	SYSTEMS	SERVICES	SYSTEMS	SERVICES	SYSTEMS	SERVICES
Revenues	3,146	2,962	—	—	3,146	2,962
Gross profit	1,059	1,387	270	(112)	1,329	1,275
Gross profit in %	33.7 %	46.8 %			42.2 %	43.0 %

Impact of correction of error year ended December 31, 2017						
	As previously reported		Adjustments (€ in thousands)		As corrected	
	SYSTEMS	SERVICES	SYSTEMS	SERVICES	SYSTEMS	SERVICES
Revenues	11,534	11,644	—	—	11,534	11,644
Gross profit	3,921	5,433	337	(366)	4,258	5,067
Gross profit in %	34.0 %	46.7 %			36.9 %	43.5 %

There is no impact on the Company's operating, investing or financing cash flows for the year-ended December 31, 2017.

7. Share based payment arrangements

On April 7, 2017, voxeljet AG established a share option plan that entitles key management personnel and senior employees of voxeljet AG and its subsidiaries to purchase shares of the parent company.

Total options available under the share option plan are 372,000. 279,000 options (75%, Tranche 1) were granted on April 7, 2017. 93,000 options (25%, Tranche 2) were granted on April 12, 2018.

The vesting conditions include a service condition (the options vest after a period of four years of continued service from the respective grant date) and a market condition (the options may only be exercised if the share price exceeds the exercise price over a period of 90 consecutive days by at least 20% in the period between the grant date and the respective exercise time frame) of which both conditions must be met.

The fair value of the employee share option plan has been measured for Tranches 1 and 2 using a Monte Carlo simulation. The market condition has been incorporated into the fair value at grant date.

The inputs used in the measurement of the fair value at grant date are as follows:

Parameter	Tranche 1	Tranche 2
Share price at grant date	USD 13.80	USD 16.15
Exercise price	USD 13.90	USD 16.15
Expected volatility	55.00%	58.40%
Expected dividends	—	—
Risk-free interest rate	2.49%	2.85%
Fair value at grant date	USD 8.00	USD 9.74

	December 31,			
	2018		2017	
	Number of options	Weighted-average exercise price (USD)	Number of options	Weighted-average exercise price (USD)
Outstanding at January 1	279,000	13.90	--	--
Granted during the year	93,000	16.15	279,000	13.90
Exercised during the year	--	--	--	--
Forfeited during the year	(18,600)	14.46	--	--
Outstanding at December 31	353,400	14.46	279,000	13.90
Exercisable at December 31	--	--	--	--

The respective expected volatility has been based on an evaluation of the historical volatility of the Company's share price as at the grant date. As at December 31, 2018 no options are exercisable and 353,400 options are outstanding. The weighted-average contractual life of the options at December 31, 2018 amounts to 8.5 years (December 31, 2017: 9.5 years).

The expense recognized in the statement of comprehensive loss totaled kEUR 604 for the year ended December 31, 2018, compared to kEUR 386 for last year's same period.

8. Trade receivables

Credit terms provided to customers are determined individually and are dependent on already existing customer relationships and the customer's payment history. The aging of trade receivables was as follows at each reporting date:

AGING STRUCTURE OF TRADE RECEIVABLES

An analysis of the credit quality of trade receivables that were not past due and the aging of trade receivables that were past due as at December 31, 2017 is as follows.

	<u>December 31,</u> <u>2017</u>
Not due at the end of the reporting period	1,560
Amount past due for the following time ranges	
Less than 3 months	2,998
Between 3 and 6 months	363
Between 6 and 9 months	68
Between 9 and 12 months	70
More than 12 months	34
Total	<u>5,093</u>

The movement in the allowance for impairment in respect of trade receivables and contract assets during the year was as follows. Comparative amounts for 2017 represent the allowance account for impairment losses under IAS 39.

Change in the allowance for doubtful accounts

	<u>Year Ended December 31,</u>	
	<u>2018</u>	<u>2017</u>
	(€ in thousands)	
Loss allowance at December 31, 2017 under IAS 39	482	336
Trade and other receivables as at December 31, 2017	62	--
Additional trade receivables recognized on adoption of IFRS 15	1	--
Loss allowance at January 1, 2018 under IFRS 9	545	336
Provisions	227	237
Write-offs	(351)	(58)
Release to income	(38)	(33)
Balance at end of period	<u>383</u>	<u>482</u>

9. Inventories

Inventories consisted of the following for the years reported:

INVENTORIES BY CATEGORY

	December 31,	
	2018	2017 ⁽¹⁾
	(€ in thousands)	
Raw materials and merchandise	4,628	2,737
Work in progress	5,436	6,522
Total	10,064	9,259

⁽¹⁾ Comparative figures for the year ended December 31, 2017 were restated for immaterial errors. For further information, see Note 6 to the consolidated financial statements.

The reserve for slow-moving inventory regarding work in progress was kEUR 22 and kEUR 440 in 2018 and 2017, respectively.

10. voxeljet UK

Impairment charges 2016

On October 7, 2016 voxeljet UK's most significant customer went into bankruptcy administration. Considering that development, voxeljet assessed the recoverability of the assets as of September 30, 2016, which resulted in a full impairment of trade receivables due from that customer of kEUR 293 and the goodwill for the CGU related to voxeljet UK.

The carrying amount of the CGU exceeded its recoverable amount of kEUR 1,471 (or kGBP 1,266) and consequently an impairment loss of kEUR 1,130 (or kGBP 907) covering the entire balance of goodwill was recognized in other operating expenses in the consolidated statements of comprehensive loss.

The recoverable amount of the CGU was based on its value in use. The value in use was determined by discounting the future cash flows expected to be generated from the continued use of the CGU.

The projections of cash flows cover the remainder of the year 2016 (forecast) and the financial years 2017 to 2021 (terminal value). The projected cash flows were estimated taking into account the cease of operations of the CGU's most significant customer, management's experience in the UK marketplace and from the Company's other service centers in Germany and the United States.

The cost of capital (weighted average cost of capital, WACC) and the terminal value growth rate are other assumptions used in the estimation of the value in use:

	2016
WACC	15.41%
Terminal value growth rate	1.00%

The parameters of the WACC are based on market observations as at September 30, 2016 (risk-free rate, spread, market risk premium, beta factor, leverage) and reflect the specific risks of voxeljet UK. The terminal value growth rate was determined on the basis of the expected long term development of prices in the UK and the relevant market for the CGU's services.

11. Intangible assets

	December 31,	
	2018	2017
	(€ in thousands)	
Software	787	573
Licenses	109	136
Prepayments made on intangible assets	524	402
Total	1,420	1,111

The increase in software and prepayments made on intangible assets is due to the purchase of software licenses in connection with our new ERP system as well as related capitalized customizing cost.

12. Property, plant and equipment

	December 31,	
	2018	2017 ⁽¹⁾
	(€ in thousands)	
Land, buildings and leasehold improvements	17,085	17,415
Plant and machinery (includes assets under finance lease)	9,072	8,901
Other facilities, factory and office equipment	1,502	1,625
Assets under construction and prepayments made	16	8
Total	27,675	27,949
Thereof pledged assets of Property, Plant and Equipment	6,691	7,046
Leased assets included in Property, Plant and Equipment:	357	881
Printers under sales and lease back	--	613
Printers leased to customers under operating lease	208	97
Other factory equipment	149	171

⁽¹⁾ Comparative figures for the year ended December 31, 2017 were restated for immaterial errors. For further information, see Note 6.

The pledged assets consist of the new office building and the new production hall, which were completed in 2017, as well as six 3D printers that serve as collateral for certain credit lines and loan agreements.

Amounts added to plant and machinery relating to self-constructed 3D printers are considered non-cash transactions, which totaled to kEUR 2,531 and kEUR 4,638 in the years ended December 31, 2018 and 2017, respectively. During 2018, the Group acquired equipment with a carrying amount of kEUR 0 (2017: kEUR 116) under a finance lease.

[Table of Contents](#)

The following table presents the composition of, and annual movement in, intangible assets and property, plant and equipment for the years 2018 and 2017, respectively:

2018

	(€ in thousands)												Carrying amount 12/31/2018
	Acquisition and manufacturing cost					Depreciation and amortization					12/31/2018		
	01/01/2018 ⁽¹⁾	Additions	Disposals	Transfer	FX	12/31/2018	01/01/2018	Current year	Disposals	Transfer		FX	
Intangible assets													
Software	1,004	230	0	211	1	1,446	431	228	0	0	0	659	787
Licenses	245		0	0	0	245	109	27	0	0	0	136	109
Prepayments made on intangible assets	402	333	0	(211)	0	524	--	0	0	0	0	0	524
Total	1,651	563	0	0	1	2,215	540	255	0	0	0	795	1,420
Property, plant and equipment													
Land, buildings and leasehold improvements	18,703	152	0	0	54	18,909	1,288	533	0	0	3	1,824	17,085
Plant and machinery	16,328	3,836	2,964	1,909	102	19,211	8,065	2,128	1,494	1,425	40	10,164	9,047
Other facilities, factory and office equipment	3,484	329	19	0	7	3,801	2,005	427	12	0	3	2,423	1,378
Assets under construction and prepayments made	8	17	0	(9)	0	16	--	0	0	0	0	0	16
Subtotal	38,523	4,334	2,983	1,900	163	41,937	11,358	3,088	1,506	1,425	46	14,411	27,526
Leased products	2,098	2	0	(1,900)	3	203	1,314	163	0	(1,425)	2	54	149
Total	40,621	4,336	2,983	0	166	42,140	12,672	3,251	1,506	0	48	14,465	27,675

2017

	(€ in thousands)												Carrying amount 12/31/2017 ⁽¹⁾
	Acquisition and manufacturing cost					Depreciation and amortization					12/31/2017		
	01/01/2017	Additions	Disposals	Transfer	FX	12/31/2017	01/01/2017	Current year	Disposals	Transfer		FX	
Intangible assets													
Software	798	137	17	91	(5)	1,004	283	166	16	--	(2)	431	573
Licenses	245	--	--	--	--	245	83	26	--	--	--	109	136
Prepayments made on intangible assets	205	328	40	(91)	--	402	40	--	40	--	--	--	402
Total	1,248	465	57	0	(5)	1,651	406	192	56	0	(2)	540	1,111
Property, plant and equipment													
Land, buildings and leasehold improvements	12,948	2,878	30	3,076	(169)	18,703	928	400	30	--	(10)	1,288	17,415
Plant and machinery	13,160	5,780	2,665	429	(376)	16,328	7,429	1,830	1,276	196	(114)	8,065	8,263
Other facilities, factory and office equipment	3,228	479	180	4	(47)	3,484	1,762	432	169	--	(20)	2,005	1,479
Assets under construction and prepayments made	3,249	9	--	(3,236)	(14)	8	--	--	--	--	--	--	8
Subtotal	32,585	9,146	2,875	273	(606)	38,523	10,119	2,662	1,475	196	(144)	11,358	27,165
Leased products	2,258	123	--	(273)	(10)	2,098	1,203	309	0	(196)	(2)	1,314	784
Total	34,843	9,269	2,875	--	(616)	40,621	11,322	2,971	1,475	--	(146)	12,672	27,949

⁽¹⁾ Comparative figures for the year ended December 31, 2017 were restated for immaterial errors. For further information, see Note 6.

The *Company* previously entered into sale and leaseback transactions for self-produced 3D printers, which were sold to banks and leased back. As of December 31, 2018 and 2017, the *Company* had zero and four active sale and leaseback contracts, respectively, as all the contracts have ended in 2018.

13. Other liabilities and provisions

	December 31,	
	2018	2017
	(€ in thousands)	
Customer deposits	--	373
Liabilities from VAT	24	12
Employee bonus	413	303
Accruals for vacation and overtime	210	222
Accruals for licenses	69	140
Liabilities from payroll	298	236
Accruals for commissions	47	50
Accruals for compensation of Supervisory board	180	180
Accrual for warranty	240	286
Others	387	322
Total	1,868	2,124

[Table of Contents](#)

After the adoption of IFRS 15 customer deposits amounting to kEUR 177 were presented within contract liabilities.

	(€ in thousands)				December 31, 2018
	January 1, 2018	Usage	Addition	Reversal	
Accrual for warranty	286	(273)	240	(13)	240

voxeljet has a Long-Term Cash Incentive Plan (“LTCIP”) that provides for cash awards to non-executive employees. Under the plan, which was announced on October 2, 2013, the *Company* may grant individual award units of EUR 5,000 each up to a total maximum amount of 10% of the net proceeds received by the *Company* upon closing of its initial public offering. An initial grant of 684 award units was made to participants on October 2, 2013. The vesting of the awards occurs during three separate performance periods, with 20% of the awards vesting in performance period 1 ended December 31, 2013, 40% of the awards vesting in performance period 2 ended December 31, 2015, and the remaining 40% vesting in performance period 3 ending December 31, 2017.

Vesting of the award during performance period 3 is subject to performance and market conditions, including revenue growth and market capitalization as of December 31, 2017. In determining the fair value of the liability for the third period of the LTCIP, the *Company* originally estimated an 80% probability of achievement for each target and an employee turnover rate of 5.8% based on the past experience. However, in 2016, management updated its assessment and estimated that the achievement of the underlying targets on the third performance period of LTCIP would no longer be probable, resulting in a gain of kEUR 478 to the consolidated statements of comprehensive loss reflecting the reversal of previously accrued expected costs. As of December 31, 2017 the targets were not achieved and the LTCIP ceased.

The Group expects to settle the majority of the other liabilities and provisions over the next year.

14. Financial instruments

Fair value is the price that would be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy defines the following levels:

- Level 1: Quoted prices of the respective financial asset or financial liability in active markets
- Level 2: Other directly observable input parameters which contribute to establishing the fair value based on a valuation model
- Level 3: Input parameters not based on observable market data

Under IFRS 9 there are the following categories:

- (I) FVOCI
- (II) Mandatorily at FVTPL
- (III) Amortized cost

The effect of initially applying IFRS 9 on the Group’s financial instruments is described in Note 3. Due to the transition method chosen, comparative information has not been restated to reflect the new requirements.

[Table of Contents](#)

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy.

12/31/2018	Carrying amount					Fair Value				
	FVTPL	FVOCI	Assets at amortized cost	Liabilities at amortized cost	Total carrying amount	Level 1	Level 2	Level 3	Total	Level
Financial assets measured at fair value										
<u>Non-current assets</u>										
Derivative financial instruments	2,229	--	--	--	2,229	--	2,229	--	2,229	Level 2
Equity securities	--	5	--	--	5	--	--	5	5	Level 3
<u>Current assets</u>										
Bond funds	--	12,905	--	--	12,905	12,905	--	--	12,905	Level 1
Financial assets not measured at fair value										
<u>Current assets</u>										
Cash and cash equivalents	--	--	7,402	--	7,402	7,402	--	--	7,402	Level 1
Trade and other receivables	--	--	6,030	--	6,030	--	--	--	--	
Financial liabilities not measured at fair value										
<u>Non-current liabilities</u>										
Long-term debt	--	--	--	16,250	16,250	--	15,231	--	15,231	Level 2
Finance lease obligation	--	--	--	71	71	--	69	--	69	Level 2
<u>Current liabilities</u>										
Long-term debt	--	--	--	816	816	--	809	--	809	Level 2
Finance lease obligation	--	--	--	34	34	--	34	--	34	Level 2
Trade payables	--	--	--	2,945	2,945	--	--	--	--	
12/31/2017			A financial asset or financial liability at fair value through profit or loss	Held-to-maturity investments	Available-for-sale investments	Loans and receivables	Financial liabilities measured at amortized cost	Fair Value		Level
Assets										
<u>Non-current assets</u>										
Equity securities		--	--	--	5	--	--	5		Level 3
Derivative financial instruments		352	--	--	--	--	--	352		Level 2
<u>Current assets</u>										
Bond funds		--	--	--	14,044	--	--	14,044		Level 1
Cash and cash equivalents		--	--	--	--	7,569	--	7,569		Level 1
Liabilities										
<u>Non-current liabilities</u>										
Long-term debt		--	--	--	--	--	16,242	15,119		Level 2
Finance lease obligation		--	--	--	--	--	171	163		Level 2
<u>Current liabilities</u>										
Bank overdraft		--	--	--	--	--	58	58		
Long-term debt		--	--	--	--	--	796	787		Level 2
Finance lease obligation		--	--	--	--	--	308	310		Level 2

[Table of Contents](#)

The financial assets with a carrying amount of € 15.1 million reported on the *Company's* statement of financial position at December 31, 2018 were comprised of investments in seven bond funds (kEUR 11,847) and one note receivable (kEUR 1,058), all reported as current financial assets, an equity forward (kEUR 2,229) and equity securities (kEUR 5) reported as a noncurrent asset.

The financial assets with a carrying amount of € 14.4 million reported on the *Company's* statement of financial position at December 31, 2017 were comprised of investments in four bond funds (kEUR 14,044), all reported as current financial assets, an equity forward (kEUR 352) and equity securities (kEUR 5) reported as a noncurrent asset.

The fair value of the *Company's* investments in the bond funds was determined based on the unit prices quoted by the respective fund management company. The funds pursue the goal of daily liquidity and invest in short-term notes. The funds are open-ended; the units can be redeemed to the fund on a daily basis. Unit prices updated by the fund management company on a daily basis represent a quoted price in an active market.

The fair value of long-term debt was determined using discounted cash flow models based on the relevant forward interest rate yield curves. The fair value of finance lease obligations was determined using discounted cash flow models based on market interest rates available to the *Company* for similar transactions at the relevant date.

The fair value of the derivative financial instruments was determined based on the *Company's* stock price and the risk-free interest rate for the remaining term of the derivative using a forward pricing formula.

15. Cost of sales

Cost of sales includes personnel expenses, cost of material, purchased services, cost for finished goods and allocated indirect costs related to production.

COST OF SALES

	Year Ended December 31,		
	2018	2017 ⁽¹⁾	2016
	(€ in thousands)		
Personnel expenses	(5,404)	(4,344)	(3,570)
Material costs	(7,082)	(6,443)	(6,837)
Depreciation	(2,197)	(2,071)	(1,562)
Other expenses	(2,598)	(1,510)	(2,512)
Allowance for slow-moving inventory	417	515	(954)
Total	(16,864)	(13,853)	(15,435)

⁽¹⁾ Comparative figures for the year ended December 31, 2017 were restated for immaterial errors. For further information, see Note 6.

In 2018, other expenses consisted of rental and building expenses (kEUR 491), travel expenses (kEUR 294) and license fees (kEUR 92). In 2017, other expenses consisted of license fees (kEUR 404), rental and building expenses (kEUR 463) and travel expenses (kEUR 296).

In 2016, other expenses consisted of rental and building expenses (kEUR 644), license fees (kEUR 421), travel expenses (kEUR 414) and tooling kits (kEUR 198).

16. Other operating income and expense

The details of other operating income and expenses are presented for the years reported in the tables below:

OTHER OPERATING INCOME

	Year Ended December 31,		
	2018	2017	2016
	(€ in thousands)		
Government grant income	11	120	75
Amortization of gain on sale and leaseback transactions	119	206	283
Reimbursement of transaction costs	121	254	127
Gains from foreign exchange transactions	794	135	645
Other	252	286	287
Total	1,297	1,001	1,417

Other operating income includes an amount of kEUR 38 (2017: kEUR 33) for the movement of impairment on trade receivables.

OTHER OPERATING EXPENSE

	Year Ended December 31,		
	2018	2017	2016
	(€ in thousands)		
Impairment loss on trade receivables	224	240	379
Losses from foreign exchange transactions	511	1,585	2,077
Impairment of Goodwill	--	--	1,130
Equity-settled share-based payment transaction in relation to the establishment of a subsidiary with non-controlling interest	--	--	256
Other	16	19	39
Total	751	1,844	3,881

17. Financial result

The details of financial result are presented for the years reported in the table below:

	Year Ended December 31,		
	2018	2017	2016
	(€ in thousands)		
<u>Interest expense</u>	(1,143)	(190)	(230)
Finance lease obligations	(69)	(45)	(57)
Long-term debt	(944)	(100)	(68)
Other	(130)	(45)	(105)
<u>Interest income</u>	1,952	365	38
Payout of bond funds	58	11	35
Income from revaluation of derivative financial instruments	1,877	352	--
Other	17	2	3
Financial result	809	175	(192)

18. Income taxes

Income taxes consist of the following for the years reported:

Income tax (expense) benefit

	Year Ended December 31,		
	2018	2017	2016
	(€ in thousands)		
Current tax expense	--	--	(2)
Deferred tax (expense) benefit	(11)	(80)	--
Total	(11)	(80)	(2)

Deferred tax assets and liabilities

The components of net deferred income taxes at the end of the respective reporting periods were as follows:

SOURCES OF DEFERRED TAX ASSETS AND LIABILITIES

	December 31,			
	2018	(€ in thousands)		2017
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Trade receivables	1	(18)	6	(88)
Other receivables and current assets	959	(62)	26	(84)
Inventories	22	(10)	71	(4)
Property, Plant & Equipment	329	(85)	527	(374)
Non-current other assets	--	--	110	--
Current deferred income	--	--	1	--
Trade liabilities	231	--	22	--
Current financial liabilities	209	--	126	--
Current financial assets	3	(624)	12	(98)
Other current liabilities and provisions	204	(729)	73	--
Contract liabilities	17	(141)	--	--
Non-current deferred income	--	--	1,076	--
Non-current financial liabilities	--	(76)	--	(42)
Non-current financial assets	--	--	3	--
Non-current liabilities and provisions	--	--	--	(1,020)
Intangible assets	--	(1)	--	(1)
Tax losses carried forward	113	--	97	--
Valuation allowance	(418)	--	(505)	--
Tax assets (liabilities)	1,670	(1,746)	1,645	(1,711)
Set off of tax	(1,670)	1,670	(1,645)	1,645
Net tax	0	(76)	0	(66)

At December 31, 2018 *voxeljet* had gross loss carry-forwards for corporation tax and trade tax losses of kEUR 26,617 and kEUR 26,033, respectively, for which no deferred taxes have been recognized. These tax losses can be carried forward without restriction for future offset against taxable profits. In addition, there are foreign tax loss carry-forwards of kEUR 14,352, primarily related to our subsidiary in the UK.

Reconciliation of profit before income taxes to income tax

The reconciliation between profit before income taxes and income tax benefit (expense) for the reporting periods presented was as follows:

RECONCILIATION OF INCOME TAX BENEFIT (EXPENSE)

	Year Ended December 31,		
	2018	2017 ⁽¹⁾	2016
	(€ in thousands)		
Loss before tax	(8,753)	(8,474)	(11,311)
Tax expense at prevailing statutory rate (28%)	2,451	2,373	3,167
Non-deductible expenses	(196)	(326)	(170)
Non-taxable income	242	266	116
Tax-rate related differences	(128)	(139)	(128)
Unrecognized temporary differences and tax losses	(2,380)	(2,254)	(2,987)
Income tax expense	(11)	(80)	(2)

19. Personnel expenses

Personnel expenses included in cost of sales, research and development, and selling and administrative expenses are comprised of the following:

PERSONNEL EXPENSES

	Year Ended December 31,		
	2018	2017	2016
	(€ in thousands)		
Wages and salaries	12,772	10,769	9,772
LTCIP	--	--	(478)
Employee stock option plan	604	386	--
Social security contributions	2,527	2,197	1,799
Total	15,903	13,352	11,093

voxeljet AG offers to its employees a defined contribution plan called “MetallRente”. The contributions paid by the *Company* amounted to kEUR 61, kEUR 62 and kEUR 57 for the years ended December 31, 2018, 2017 and 2016, respectively. The employer’s contribution into the mandatory German state plan amounted to kEUR 849, kEUR 710 and kEUR 697 for the years ended December 31, 2018, 2017, and 2016, respectively.

20. Segment reporting

voxeljet operates in two reportable segments—Systems and Services—which reflect the internal organizational and management structure according to the distinct nature of the two businesses. The Systems business derives its revenues from the manufacture and sale of 3D printers, from the sale of consumables, as well as from lease, maintenance and extended warranty agreements with customers, while the Services business provides customized printed products to customers.

The Management Board of *voxeljet* is the chief operating decision maker. As a performance indicator, the chief operating decision maker mainly monitors the *Company*’s revenues and gross profit.

The following table summarizes segment reporting for each of the reporting periods ended December 31. As management’s controlling instruments are mainly revenue-based, the reporting information does not include a detailed breakdown of all assets and liabilities by category. The sum of the amounts for the two segments equals the total for the *Company* for each of the years presented.

SEGMENT REPORTING

	Year Ended December 31,					
	2018		2017 ⁽¹⁾		2016	
	(€ in thousands)					
	SYSTEMS	SERVICES	SYSTEMS	SERVICES	SYSTEMS	SERVICES
Revenues	12,248	13,761	11,534	11,644	13,081	9,257
Gross profit	3,708	5,437	4,258	5,067	3,197	3,706
Gross profit in %	30.3%	39.5%	36.9%	43.5%	24.4%	40.0%
PPE	11,804	15,871	13,070	14,628	9,936	13,585
Trade receivables	3,479	2,551	2,899	2,194	2,566	1,567
Trade payables	1,726	1,219	1,885	1,174	833	932

Systems revenues include revenues from the sales of used 3D printers of kEUR 1,489, kEUR 2,556, and kEUR 1,235 for the years ended December 31, 2018, 2017, and 2016, respectively.

Geographic information

REVENUES BY GEOGRAPHICAL REGION

voxeljet's revenues and non-current assets are presented below by geographic region. For purposes of this presentation, revenues are based on the geographic location of customers and assets are based on their geographic location.

voxeljet's revenues were generated in the following geographical regions for the years reported:

	Year Ended December 31,		
	2018	2017	2016
	(€ in thousands)		
EMEA	14,673	14,832	13,364
Germany	6,605	5,677	6,132
France	2,667	2,611	2,725
Great Britain	1,050	1,459	1,135
Others	4,351	5,085	3,372
Asia Pacific	5,450	2,526	4,831
Indonesia	1,819	--	--
China	2,134	1,549	194
South Korea	888	721	1,680
Thailand	6	6	1,327
Taiwan	7	25	1,303
Others	596	225	327
Americas	5,886	5,820	4,143
United States	5,802	5,474	4,107
Others	84	346	36
Total	26,009	23,178	22,338

NON-CURRENT ASSETS BY GEOGRAPHICAL REGION

	December 31,	
	2018	2017 ⁽¹⁾
	(€ in thousands)	
EMEA	26,651	25,366
Germany	25,104	23,906
Great Britain	1,547	1,460
Asia Pacific	1,090	1,360
Americas	3,675	2,782
United States	3,675	2,782
Total	31,416	29,508

⁽¹⁾ Comparative figures for the year ended December 31, 2017 were restated for immaterial errors. For further information, see Note 6.

21. Financial risk management

The *Company's* Management Board is responsible for implementing the finance policy and for ongoing financial risk management. Therefore the Management Board has established a Risk Management Committee, which is responsible for developing and monitoring of the Group's risk management policies, especially regarding financial risks. Generally the committee provides an overview of financial risks on a quarterly basis to the Management Board as part of the *Company's* quarterly management reporting procedures.

The *Company's* principal financial instruments are comprised of short-term bank deposits at commercial institutions, bond funds, lease obligations and long-term debt. The main purpose of the financial asset instruments is to provide a return on investments with minimal risk. The main purpose of the financial liability instruments is to help fund the *Company's* operations. The *Company* has various other financial assets and liabilities including trade receivables and trade payables, which arise directly from its operations.

The main purpose of the financial liability instruments is to fund the *Company's* operations and research and development activities. A portion of the long-term debt includes a derivative financial instrument related to a future interest payment which is linked to the *Company's* stock price (Performance Participation Interest).

The main risks arising from the Group's financial instruments are foreign exchange risk, credit risk and equity price risks. The measures taken by Management to manage each of these risks are summarized below.

Transactions related to activities in the area of financial instruments require the prior approval of the Chief Financial Officer. The *Company* did not enter into any derivative financial instruments for hedging purposes in 2018.

Management receives a weekly reporting of the current liquidity of the Group by entity. Furthermore, a monthly cash flow plan meeting has been established, where Management reviews the cash forecasts and the future development of flows of funds on an ongoing basis.

Foreign exchange risk

The *Company* is exposed to foreign exchange risk to the extent that there is a difference between the currencies in which sales, purchases and borrowings are denominated and the respective functional currencies of subsidiaries of the Group. The functional currencies of the parent company *voxeljet AG* and its subsidiaries are Euro, US Dollars, British Pound Sterling, Indian rupee and Chinese yuan renminbi. The majority of the sale, purchase and borrowing transactions are denominated in the functional currency of the parent company or its subsidiaries. The *Company's* most significant foreign exchange risk relates to intercompany loans made to subsidiaries, as described below.

voxeljet has provided intercompany loans to its subsidiaries to finance their operations. The loans were granted in the local currency of the subsidiaries. Gains and losses from movements in exchange rates are recorded within other operating income or expense in the consolidated statement of comprehensive loss. As of December 31, 2018 the amount loaned to *voxeljet UK* by *voxeljet AG* totaled GBP 8.1 million (€ 9.0 million). A relative increase in the value of the Euro against British Pound Sterling of 10% would lead to a loss of € 0.8 million. The amount of loaned to *voxeljet America* totaled to USD 6.8 million (€ 5.9 million) as of December 31, 2018. An increase in the value of the Euro against US Dollars of 10% would lead to a loss of € 0.5 million.

For the year ended December 31, 2018, *voxeljet* generated 41.9% of its revenues in the eurozone. Additionally, the majority of the *Company's* sourcing transactions are also transacted in Euros in that zone.

The *Company* invoiced 70% in 2018, 70% in 2017 and 84% in 2016 of total revenues in Euro. As revenues in foreign currency usually correspond to costs which are incurred in the same currency, we consider the risk as minor.

The significant exchange rates which have been applied during the years presented are disclosed in Note 3.

Interest rate risk

voxeljet's principal interest-bearing positions are liabilities for bank borrowings and finance lease obligations. These liabilities are entirely at a fixed interest rate, with one exception. As such, changes in market interest rates have no material effect on future interest expenses. A change of 10% in interest rates would increase or decrease interest expense less than kEUR 2.

In connection with the first tranche of the loan received by the European Investment Bank amounting to € 10.0 million, the Company issued a warrant, Performance Participation Interest (PPI), accounted for separately as derivative financial instruments from the host contract (loan financial liability), with changes in fair value reported in the consolidated statements of comprehensive loss until the derivative financial instruments settle or expire. The loan is accounted for according to the effective interest method. The effective interest rate of the loan with the European Investment Bank is 7.58%, which is imputed based on the fair value of the derivative financial instruments on the date of the loan disbursement. Changes in the market interest will not affect the loan accounting. However, the derivative instrument is affected by changes in the risk-free rate. Increases in the risk-free rate will lead to a decrease of the fair value of the derivative instrument; decreases in the risk-free rate will lead to an increase in the fair value of the derivative instrument.

Equity price risk

The *Company* is also exposed to equity price risks which arise from derivative financial instruments (PPI) associated with the loan received by the European Investment Bank which depend upon the *Company's* share price. Changes in the *Company's* share price will affect the value of an equity forward derivative instrument (increasing share prices as compared to the share price at disbursement date will lead to a negative fair value of the derivative, decreasing share prices will lead to a positive fair value of the derivative). An increase/decrease of the price per ADR by USD 1.00 leads to an increase/decrease of the derivative financial instrument by € 1.1 million.

Credit risk

Credit risk is the risk of the *Company* suffering a financial loss as the result of its counterparties being unable to perform their obligations. The *Company* is exposed to credit risk from its operating activities (mainly trade receivables) and from its financing activities, including deposits and investments with financial institutions. Therefore, the carrying amount of cash and cash equivalents, financial assets, and trade receivables represents the maximum credit exposure of € 26.4 million (2017: € 27.1 million).

The *Company's* exposure to credit risk is influenced by the individual characteristics of each customer. However, Management also considers factors that influence the credit risk of its customer base, including the default risk of the industry and the country in which the customer operates. *voxeljet* seeks to minimize such risk by entering into transactions with counterparties that are believed to be creditworthy business partners or with financial institutions which meet high credit rating requirements. In addition, the portfolio of receivables and customer advances is monitored on a continuous basis. Credit risk is limited to a specified amount with regard to individual receivables. There were no customer loans outstanding as of December 31, 2018 and 2017. Since 2018, the *Company* calculates an expected credit loss (ECL) based on the risk scoring its customers' according to an external rating agency. Following the risk score of each customer, the trade receivables are clustered into different grades. For each grade, the ECL is calculated after deducting from trade receivables a loss allowance based on actual credit loss experience.

The Group limits its exposure to credit risk by investing only in bond funds which are fully guaranteed by the financial institutions and therefore represents short term credit rating of A-3 based on Standard & Poor's or P-2 based on Moody's.

The bank deposit are held with financial institutions, which are rated BBB to A2 based on Standard & Poor's and Moody's.

Reconciliation of movements of liabilities to cash flows arising from financing activities

<i>(€ in thousands)</i>	Liabilities			Equity				Total
	Bank overdrafts used for cash management purposes	Other loans and borrowings	Finance lease liabilities	Subscribed capital	Capital reserves	Accumulated deficit ⁽¹⁾⁽²⁾	Non-controlling interests	
Restated balance at January 1, 2018	58	17,038	479	3,720	76,227	(37,672)	71	59,921
Changes from financing cash flows								
Proceeds from loans and borrowings	—	1,639	—	—	—	—	—	1,639
Repayment of borrowings	(58)	(2,764)	—	—	—	—	—	(2,822)
Payment of finance lease liabilities	—	—	(361)	—	—	—	—	(361)
Proceeds from issuance of shares	—	—	—	1,116	9,972	—	—	11,088
Total changes from financing cash flows	(58)	(1,125)	(361)	1,116	9,972	—	—	9,544
Other changes								
Liability-related								
Capitalized borrowing costs	—	—	—	—	—	—	—	—
Reclassification	—	1,152	(13)	—	—	—	—	1,139
Interest expense	—	944	69	—	—	—	—	1,013
Interest paid	—	(943)	(69)	—	—	—	—	(1,012)
Total liability-related other changes	—	1,153	(13)	—	—	—	—	1,140
Total equity-related other changes	—	—	—	—	604	(8,728)	(36)	(8,160)
Balance at December 31, 2018	—	17,066	105	4,836	86,803	(46,400)	35	62,445

⁽¹⁾ Restated balance at January 1, 2018 includes restatement for immaterial errors. For further information, see Note 6.

⁽²⁾ Restated balance at January 1, 2018 includes impact of the adoption of IFRS 9 and IFRS 15.

(€ in thousands)	Liabilities			Equity				Total
	Bank overdrafts used for cash management purposes	Other loans and borrowings	Finance lease liabilities	Subscribed capital	Capital reserves	Accumulated deficit	Non-controlling interests	
Restated balance at January 1, 2017	224	5,099	791	3,720	75,827	(28,971)	87	56,777
Changes from financing cash flows								
Proceeds from loans and borrowings	—	12,612	—	—	—	—	—	12,612
Repayment of borrowings	(165)	(732)	—	—	—	—	—	(897)
Payment of finance lease liabilities	—	—	(436)	—	—	—	—	(436)
Total changes from financing cash flows	(165)	11,880	(436)	—	—	—	—	11,279
Other changes								
Liability-related								
Capitalized borrowing costs	—	—	—	—	—	—	—	78
Reclassification	—	42	123	—	—	—	—	165
Interest expense	—	100	45	—	—	—	—	145
Interest paid	—	(161)	(45)	—	—	—	—	(206)
Total liability-related other changes	—	59	123	—	—	—	—	182
Total equity-related other changes								
	—	—	—	—	400	(8,509)	(16)	(8,125)
Balance at December 31, 2017	59	17,038	478	3,720	76,227	(37,480)	71	60,113

Liquidity risk

Liquidity risk is the risk that *voxeljet* might not have sufficient cash to meet its payment obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. *The Company's* approach to managing liquidity is to ensure, as far as possible, that it will have sufficient liquidity to meet its liabilities when they are due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the reputation of the *Company*. Liquidity risk is countered by systematic, day-by-day liquidity management whose fundamental requirement is that solvency must be guaranteed at all times. A major responsibility of management is to monitor the cash balances and to set up and update cash planning on a monthly basis to ensure liquidity. At all times cash and cash equivalents are projected on the basis of a regular financial and liquidity planning. The monitoring includes the expected cash inflows on trade and other receivables together with expected cash outflows from trade and other payables.

In 2016, *voxeljet* concluded new loan agreements with Kreissparkasse Augsburg, Germany, to finance the construction of new office and production facilities in Friedberg: (i) in May 2016, the *Company* entered into a € 1.0 million loan agreement due April 30, 2021. Interest is payable at a fixed rate of 2.35%; (ii) in September 2016, the *Company* entered into a € 2.0 million loan agreement due May 31, 2038. Interest is payable at a fixed rate of 2.47%; (iii) In October 2016, the *Company* entered into a € 0.7 million loan agreement due September 30, 2021. Interest is payable at a fixed rate of 2.29%; and (iv) in December 2016, the *Company* entered into a € 1.0 million loan agreement due January 31, 2038. Interest is payable at a fixed rate of 2.72%. Among other terms, the loan agreements contain (i) certain covenants, including that *voxeljet* deposit € 2.0 million with Kreissparkasse Augsburg until it has reached certain ratio with respect to its ability to service the debt by the end of fiscal year 2019, and (ii) change of control provisions concerning the ownership of the *Company* by its executive officers, Dr. Ingo Ederer and Rudolf Franz. In case *voxeljet* fails to meet that ratio by the end of its fiscal year 2019, *voxeljet* is obliged to pledge € 2.0 million for the benefit of the lender. In addition, the land owned by *voxeljet* upon which the facilities will be built as well as three 3D printers will serve as collateral under the loan agreements.

[Table of Contents](#)

On November 9, 2017, the European Investment Bank (“EIB”) and the *Company* entered into a Finance Contract and Synthetic Warrant Agreement to support the *Company*’s undertaking of research and development projects for growth from 2017 to 2020. The contract provides a credit of up to € 25 million in three tranches of € 10 million, € 8 million, and € 7 million.

Under the Contract, the *Company* may borrow under the credit up to €25 million, subject to a limit of 50% of the total research and development expenditures and manufacturing capital expenditures from 2017 to 2020. The interest rates for the three tranches are 0%, 7% and 3%, respectively. The *Company* may borrow the second and third tranche only if certain revenue and EBITDA levels are met. The Contract also includes a financial covenant that requires the *Company* to meet certain minimum financial ratios from 2019 to 2025. Under a First Demand Guarantee Agreement the Finance Contract is guaranteed by the voxeljet USA subsidiary.

In 2018, voxeljet did not enter into any new loan agreement.

The total research and development expenditures and manufacturing capital expenditures are expected to be € 14.0 million and € 16.2 million for the fiscal year 2019 and 2020, respectively.

The first tranche of € 10 million received on December 22, 2017, the EIB under the Synthetic Warrant Agreement was entitled to receive as consideration in cash equal to the market value of 195,790 ordinary shares of the *Company* (or equivalent number of ADS of the *Company*) at the maturity date (5 years after draw down), after the occurrence of a trigger event, or on the expiration date (10 years after draw down). Under the anti-dilution protection clause of the agreement the number of ordinary shares under the Synthetic Warrant Agreement was increased to 254,527 as a result of the capital increase effective October 17, 2018 and November 1, 2018.

voxeljet may prepay all or part of any Tranche before the maturity date, together with accrued interest.

The following are the remaining contractual maturities of financial liabilities and trade payables at the reporting date. The amounts are gross and undiscounted and include contractual interest payments.

		December 31, 2018 (€ in thousands)					
		Contractual cash flow					
carrying amount	Total	2 months or less	2-12 months	1-3 years	3-5 years	More than 5 years	
Long-term debt	17,066	(22,529)	(160)	(799)	(1,518)	(15,251)	(4,801)
Finance lease obligations	105	(109)	(9)	(27)	(56)	(17)	--
Trade payables	2,945	(2,945)	(2,945)	--	--	--	--
Total	20,116	(25,583)	(3,114)	(826)	(1,574)	(15,268)	(4,801)

		December 31, 2017 (€ in thousands)					
		Contractual cash flow					
carrying amount	Total	2 months or less	2-12 months	1-3 years	3-5 years	More than 5 years	
Bank overdrafts and lines of credit	58	(58)	(58)	--	--	--	--
Long-term debt	17,038	(23,423)	(160)	(798)	(1,843)	(15,587)	(5,035)
Finance lease obligations	479	(495)	(73)	(247)	(132)	(43)	--
Trade payables	3,059	(3,059)	(3,059)	--	--	--	--
Total	20,634	(27,035)	(3,350)	(1,045)	(1,975)	(15,630)	(5,035)

In spite of the significant cash outflow in 2018 and 2017, the *Company*’s short and mid-term liquidity needs are currently covered. This is supported through the capital increase finalized in the fourth quarter of 2018 with net proceeds of approximately € 11.1 million. The mid-term business plan includes the raising of additional capital through additional debt, equity or other alternatives to ensure the cash requirements of the *Company*. In order to be prepared for additional public fund raising the *Company* filed a form F-3 with the SEC in August 2017. As the cash position of the *Company* is still sufficient, mid-term liquidity risk is considered low.

22. Capital management

Management's aim is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business.

Equity is monitored by the *Company* using financial ratios. The equity used as a basis for determining the equity ratio corresponds to the equity disclosed in the Consolidated Statement of Financial Position.

Part of the capital management strategy is to reduce the number of sale and leaseback transactions for 3D printing equipment used in the production of printed products for customers. As a result of the *Company's* increased liquidity from its public equity offerings, certain lease contracts have been terminated prior to their scheduled maturity.

voxeljet's capital structure as of the end of the reporting periods 2018 and 2017 was as follows:

CAPITAL STRUCTURE

	December 31,	
	2018	2017 (1)
	(€ in thousands)	
Equity	46,475	43,889
Share of total equity and liabilities	67.0%	65.5%
Current financial liabilities	850	1,162
Non-current financial liabilities	16,321	16,413
Total financial liabilities	17,171	17,575
Share of total equity and liabilities	24.8%	26.2%
Total equity and liabilities	69,352	67,002

23. Leases

Finance leases

Lessee

Future minimum lease payments under financing lease arrangements at the end of the considered reporting periods were as follows:

PRESENT VALUE OF MINIMUM LEASE PAYMENTS

	December 31, 2018		
	(€ in thousands)		
	Minimum future lease payments obligation	Unamortized interest expense	Present value of minimum future lease payments obligation
due within 1 year	36	(2)	34
due between 1 and 5 years	73	(2)	71
Total	109	(4)	105

	December 31, 2017		
	(€ in thousands)		
	Minimum future lease payments obligation	Unamortized interest expense	Present value of minimum future lease payments obligation
due within 1 year	320	(12)	308
due between 1 and 5 years	175	(4)	171
Total	495	(16)	479

Operating Leases

Lessee

The estimated payment schedule regarding operating leases at the end of the considered reporting periods was as follows:

OPERATING LEASE OBLIGATIONS

	December 31,	
	2018	2017
	(€ in thousands)	
Less than 1 year	554	486
1 to 5 years	1,666	762
Over five years	364	398
Total	2,584	1,646

Operating lease expenses were kEUR 528, kEUR 537, and kEUR 630 in the financial years 2018, 2017, and 2016, respectively. Operating lease expenses are primarily related to the rental agreements for real estate regarding our foreign operations.

Lessor

voxeljet leased two of its self-produced 3D printers to two customers. Under the lease contract, *voxeljet* bears a majority of the substantial risks and rewards of the underlying assets.

Operating lease payments receivable for subleases

	December 31,	
	2018	2017
	(€ in thousands)	
Less than 1 year	94	30
1 to 5 years	--	--
Total	94	30

The operating lease income was kEUR 31, kEUR 145 and kEUR 89 in the financial years 2018, 2017, and 2016, respectively.

24. Commitments, contingent assets and liabilities

In connection with the enforcement of *voxeljet's* intellectual property rights, the acquisition of third-party intellectual property rights, or disputes related to the validity or alleged infringement of the *Company's* or a third-party's intellectual property rights, including patent rights, *voxeljet* has been and may in the future be subject or party to claims, negotiations or complex, protracted litigation.

In March 2018, ExOne GmbH, a subsidiary of ExOne, notified *voxeljet* of its intent not to pay its annual license fees under an existing intellectual property-related agreement and asserted its rights to claim damages pursuant to an alleged material breach of the agreement. At this time, the *Company* cannot reasonably estimate a contingency, if any, related to this matter.

25. Related party transactions

Related party transactions at *voxeljet* mainly consist of transactions with individuals on the Management Board and Supervisory Board.

Key management is defined as those individuals having authority and responsibility for planning, directing and controlling the activities of the *Company* within their function and within the interest of the *Company*.

The following table presents the amount and components of Management Board compensation:

MANAGEMENT COMPENSATION

	Year Ended December 31,		
	2018	2017	2016
	(€ in thousands)		
Fixed compensation	781	778	644
Compensation arisen from stock option plan	360	231	--
Total	1,141	1,009	644

Management Board remuneration currently consists of a fixed monetary remuneration, other fixed benefits (including *Company* car allowances and contributions to a defined contribution plan), a variable bonus as well as the participation in a stock options plan, which was executed on April 7, 2017.

Transactions with related parties

A related party relationship could have an effect on the profit and loss and financial position of the *Company*. Defined as related parties are individuals or other third parties with whom *voxeljet* has common control relationships.

OTHER RELATED PARTIES

Name	Nature of relationship	Duration of relationship
Franz Industriebeteiligungen AG, Augsburg	Lessor	10/01/2003-Current
Schlosserei und Metallbau Ederer, Dießen	Supplier	05/01/1999-Current
Andreas Schmid Logistik AG	Supplier	05/01/2017-Current
Suzhou Meimai Fast Manufacturing Technology Co., Ltd	Customer	04/11/2016-Current
Simon Franz	Employee	04/11/2017-Current
DSCS Digital Supply Chain Solutions GmbH	Customer	05/11/2017-Current

Transactions with Franz Industriebeteiligungen AG comprise the rental of office space in Augsburg, Germany. Rental expenses amounted to kEUR 2, in each of 2018, 2017 and 2016. In addition, Franz Industriebeteiligungen AG received payments related to the use of certain paintings which are placed in the administrative building in Friedberg. Associated rental expenses amount to kEUR 2 in each of 2018, 2017, and 2016.

[Table of Contents](#)

Further, *voxeljet* acquired goods amounting to kEUR 7, kEUR 15, and kEUR 15 in 2018, 2017 and 2016 from ‘Schlosserei und Metallbau Ederer’, which is owned by the brother of Dr. Ingo Ederer, the Chief Executive Officer of *voxeljet*. In addition, *voxeljet* received logistics services amounting to kEUR 74 and kEUR 43 in 2018 and 2017 from ‘Andreas Schmid Logistik’, where the member of our supervisory board Dr. Stefan Söhn serves as CFO.

Moreover, *voxeljet* received orders amounting to kEUR 175, kEUR 244 and kEUR 87 in 2018, 2017 and 2016 from ‘Suzhou Meimai Fast Manufacturing Technology Co., Ltd., which is our joint venture partner for *voxeljet* China.

Further, *voxeljet* received orders amounting to kEUR 0 and kEUR 0 in 2018 and 2017 from ‘DSCS Digital Supply Chain Solutions GmbH’, which is an associated company where we own 33.3%.

In addition, *voxeljet* employed Simon Franz, who is the son of *voxeljet*’s CFO Rudolf Franz. He received a salary of kEUR 12 and kEUR 3 in 2018 and 2017, respectively.

26. Equity

At December 31, 2018, 4,836,000 no-par value ordinary shares were issued and outstanding. There is only a single class of ordinary shares with the same rights, preferences and restrictions. Each share entitles the holder to one vote at the shareholders’ meeting. Shareholders participate in the profits according to their share in the share capital, based on their number of shares held. The general shareholders’ meeting resolves the appropriation of the balance sheet profit established in the annual financial statements and the dividends.

On October 17, 2018, *voxeljet* issued 972,000 ordinary shares, equivalent to 4,860,000 American Depositary Shares (“ADS”), at an offering price of USD 2.57 per ADS (the “Public Offering Price”). The Company received net proceeds of approximately EUR 9.7 million. Members of the Management Board, who are also significant shareholders, purchased an aggregate number of 233,462 ADSs in this offering at the Public Offering Price. On November 8, 2018, *voxeljet* closed the over-allotment transaction in which it issued additional 144,000 ordinary shares, equivalent to 720,000 ADSs, upon the exercise of the over-allotment option exercised by the underwriter on November 1, 2018. The Company received net proceeds of approximately EUR 1.4 million.

Incremental costs of EUR 0.6 million directly attributable to the issue of ordinary shares are recognized as a deduction from equity.

The Articles of Association authorize the Management Board, subject to the consent of the Supervisory Board, to increase the *Company*’s registered share capital in one or more tranches by up to kEUR 744 new no par value ordinary shares against contribution in cash or in kind until May 29, 2023.

27. Subsequent events

At March 1, 2019, *voxeljet* China moved into a new facility. The new facility comprises production floor, storage as well as office space.