

CeramTec Holding GmbH
Plochingen

Consolidated Financial Statements
for the year ended
31 December 2016

Consolidated statement of comprehensive income

from 1 January to 31 December 2016

	Notes	1 January to	1 January to
		31 December 2016	31 December 2015
		EUR k	EUR k
Revenue	3.1	493.313	501.331
Cost of sales	3.2	294.929	299.956
Gross profit		198.384	201.375
Selling costs	3.3	91.478	86.801
Research and development costs	3.4	22.798	24.241
General administrative costs	3.5	22.189	21.105
Other income and expenses (-), net	3.6	-2.221	448
Operating income		59.698	69.676
Interest income and other finance income		18.734	5.408
Interest expenses and other finance costs		73.596	81.699
Financial result	3.7	-54.862	-76.291
Profit / Loss (-) before income tax		4.836	-6.615
Income tax expense	3.8	-10.010	-7.694
Net loss for the period		-5.174	-14.309
Items that will not be reclassified through profit or loss			
Income / Expenses (-) from the remeasurement of pension provisions		-15.023	9.596
Deferred taxes		3.976	-2.762
		-11.047	6.834
Items that may be reclassified subsequently to profit or loss			
Gains on cash flow hedges		237	2.645
Deferred taxes		-68	-758
		169	1.887
Exchange differences on translation of foreign operations		1.049	4.796
Other comprehensive income / loss (-), net of income tax		-9.829	13.517
Total comprehensive loss		-15.003	-792

Consolidated statement of financial position as at 31 December 2016

Assets	Notes	31 December 2016	31 December 2015
		EUR k	EUR k
Goodwill	4.1	557.961	557.567
Other intangible assets	4.1	557.421	603.922
Property, plant and equipment	4.2	275.532	300.199
Other financial assets	4.3	72.484	56.444
Other assets	4.4	711	1.188
Deferred tax assets	3.8	851	1.085
Non-current assets		1.464.960	1.520.405
Inventories	4.5	76.904	75.137
Trade receivables	4.6	53.553	53.178
Financial receivables from affiliates		0	1.022
Income tax receivables		1.281	1.665
Other financial assets	4.3	12.390	8.515
Other receivables and assets	4.4	4.268	5.207
Cash and cash equivalents	4.7	124.585	86.476
Assets held for sale	4.8	0	11
Current assets		272.981	231.211
Total Assets		1.737.941	1.751.616

Consolidated statement of financial position as at 31 December 2016

Equity and Liabilities	Notes	31 December 2016	31 December 2015
		EUR k	EUR k
Issued capital	4.9	25	25
Capital reserves	4.9	378.148	378.148
Retained earnings	4.9	-119.392	-103.171
Accumulated other comprehensive income	4.9	10.646	9.428
Equity		269.427	284.430
Provisions for pension obligations	4.10	102.410	86.071
Other provisions	4.11	10.636	3.653
Financial liabilities to affiliates	4.12	98.021	144.574
Financial liabilities to third parties	4.13	927.004	956.856
Deferred tax liabilities	3.8	156.258	167.346
Non-current liabilities		1.294.329	1.358.500
Other provisions	4.11	16.425	13.081
Provision for taxes	4.11	2.790	2.364
Financial liabilities to affiliates	4.12	56.402	0
Financial liabilities to third parties	4.13	62.529	55.029
Trade payables		22.376	24.354
Trade payables to affiliates		205	0
Other liabilities	4.14	13.458	13.858
Current liabilities		174.185	108.686
Total liabilities		1.468.514	1.467.186
Total equity and liabilities		1.737.941	1.751.616

CeramTec Holding GmbH, Plochingen

**Consolidated statement of changes in equity
for the period ended 31 December 2016**

	Issued capital	Capital reserves	Revenue reserves and consolidated net income	Accumulated other comprehensive income Cash flow hedge reserve	Difference from currency translation	Equity
	EUR k	EUR k	EUR k	EUR k	EUR k	EUR k
01 January 2015	25	378.148	-95.696	-258	3.003	285.222
Net loss for the period	0	0	-14.309	0	0	-14.309
Other comprehensive income / loss (-)	0	0	6.834	1.887	4.796	13.517
<i>Total comprehensive income / loss (-)</i>	<i>0</i>	<i>0</i>	<i>-7.475</i>	<i>1.887</i>	<i>4.796</i>	<i>-792</i>
31 December 2015	25	378.148	-103.171	1.629	7.799	284.430
Net loss for the period	0	0	-5.174	0	0	-5.174
Other comprehensive income / loss (-)	0	0	-11.047	169	1.049	-9.829
<i>Total comprehensive income / loss (-)</i>	<i>0</i>	<i>0</i>	<i>-16.221</i>	<i>169</i>	<i>1.049</i>	<i>-15.003</i>
31 December 2016	25	378.148	-119.392	1.798	8.848	269.427

CeramTec Holding GmbH, Plochingen

**Consolidated statement of cash flows
from 1 January to 31 December 2016**

	1 January to 31 December 2016 EUR k	1 January to 31 December 2015 EUR k
Net loss for the period	-5.174	-14.309
Income tax expense	10.010	7.694
Interest result	71.200	74.655
Amortisation, depreciation and impairment charges of non-current assets	85.956	84.619
Gain (-) / Loss on disposal of fixed assets	54	99
Increase / decrease (-) in provisions (excluding deferred taxes)	9.416	1.170
Income tax refund / payment (-)	-16.228	-11.330
Other non-cash income (-) / expenses, net	-15.089	1.732
Increase (-) / decrease in inventories	-1.767	-6.303
Increase (-) / decrease in trade receivables	-375	-5.100
Increase (-) / decrease in other receivables and (financial) assets	1.660	614
Increase / decrease (-) in trade payables	-949	1.866
Increase / decrease (-) in other (financial) liabilities	-734	111
Cash flow from operating activities	137.980	135.518
Cash received from disposals of property, plant and equipment	305	324
Cash paid (-) for investments in property, plant and equipment	-15.002	-26.891
Cash received from grants	139	1.059
Cash paid (-) for investments in intangible assets	-656	-1.093
Cash paid (-) for the acquisition of entities	0	-10.934
Cash flow from investing activities	-15.214	-37.535
Repayment (-) of syndicated loan	-30.068	-18.733
Interest paid (-)	-54.145	-55.263
Cash flow from financing activities	-84.213	-73.996
Change in cash and cash equivalents	38.553	23.987
Net foreign exchange difference	-444	243
Cash and cash equivalents at the beginning of the period	86.476	62.246
Cash and cash equivalents at the end of the period	124.585	86.476

TRANSLATION – GERMAN VERSION PREVAILS

CeramTec Holding GmbH
Plochingen

**Notes to the
Consolidated Financial Statements
for the year ended
31 December 2016**

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1 General

1.1 Corporate information and purpose of the Company

The purpose of CeramTec Holding GmbH (hereinafter “CeramTec Holding”) is to render management services as well as administrative, financial and business services in return for remuneration to entities in which it has a direct or indirect shareholding or which are controlled by the same shareholder. It sets up branch offices in Germany and abroad, establishes other entities in Germany and abroad irrespective of their legal form, acquires, invests in and holds these investments and/or manages them as well as enters into and/or issues all kinds of financial instruments.

The subsidiaries of CeramTec Holding are leading global producers of high-performance ceramics and specialized in the development, production and sale of assemblies, components and products made from ceramic materials. The companies are primarily active in the following markets: automotive, electronic applications, energy and environmental applications, equipment and mechanical engineering and medical technology. Their activities focus on developing solutions for increasingly demanding application areas using many different and in part highly-specialized ceramic materials with unique mechanical, electrical, thermal and biochemical properties and property combinations.

CeramTec Holding’s registered office is located at CeramTec-Platz 1-9 in 73207 Plochingen, Germany. CeramTec Holding is the parent company of the Group (“CeramTec Holding Group” or “Group”) and at the same time the ultimate parent, which prepares exempting consolidated financial statements.

Where no prior-year figures are presented in the following, their value is EUR 0k.

The management of CeramTec Holding approved the consolidated financial statements on 15 March 2017 for submission to the shareholder meeting.

1.2 Basis of preparation

The consolidated financial statements are prepared pursuant to Sec. 315a (3) HGB [“Handelsgesetzbuch”: German Commercial Code] in accordance with the International Financial Reporting Standards (IFRS/IAS) as adopted by the EU as well as the interpretations of the IFRS Interpretations Committee (IFRS IC) applicable for the fiscal year and the supplementary requirements of German commercial law.

The requirements of the standards and interpretations adopted were satisfied in full. Furthermore, all applicable requirements of German commercial law were observed during the preparation. The financial statements give a true and fair view of the net assets, financial position and results of operations of the CeramTec Holding Group.

The financial statements are presented in euro. The amounts are in thousands of euros (EUR k). All amounts are rounded using standard commercial principles. In individual cases, adding individual values to the total value may therefore lead to differences.

For the purpose of clarity, various items in the statement of financial position and statement of comprehensive income were combined and explained accordingly in the notes to the financial statements. Assets and liabilities are broken down into current and non-current items. Assets and liabilities are classified as current if they are expected to be realized within twelve months from the reporting date. The expense recognized in profit or loss is broken down using the cost of sales method. In the statement of cash flows, cash flow from operating activities is determined using the indirect method, while cash flow from investing and financing activities is determined using the direct method.

1.3 Entities included in the consolidated financial statements

In addition to the financial statements of the parent company, the financial statements of the following subsidiaries in which CeramTec Holding has a direct or indirect shareholding are included in the consolidated financial statements for the fiscal year:

Name of the entity	Share of capital in %		CGU
	31 December 2016	31 December 2015	
CeramTec Group GmbH, Plochingen	100.00	100.00	1
CeramTec FinCo GmbH, Plochingen	100.00	100.00	1
CeramTec Service GmbH, Plochingen	100.00	100.00	1
CeramTec GmbH, Plochingen	100.00	100.00	2
Cerasiv GmbH Innovatives Keramik-Engineering, Plochingen	100.00	100.00	3
CeramTec-ETEC GmbH, Lohmar	100.00	100.00	5
Emil Müller GmbH, Wilhermsdorf	100.00	100.00	4
CeramTec Italia s.r.l. in Liquidazione, Milan/Italy	100.00	100.00	3
CeramTec UK Ltd., Colyton/Great Britain	100.00	100.00	3
CeramTec Czech Republic s.r.o., Sumperk/Czech Republic	100.00	100.00	3
CeramTec Ibérica Innovative Ceramic Engineering S.L., Vilassar de Mar/Spain	100.00	100.00	3
CeramTec Innovative Ceramic Engineering, (M) Sdn. Bhd., Seremban/Malaysia	100.00	100.00	3
CeramTec Korea Ltd., Suwon-Si/Republic of Korea	100.00	100.00	3
CeramTec Suzhou Ltd., Suzhou/China	100.00	100.00	3
PST Press Sintertécnica Brasil Ltda., Nova Odessa/Brazil	100.00	100.00	4
CeramTec India Innovative Ceramic Engineering Pvt. Ltd., Panaji - Goa/India	99.90	99.90	3
Press and Sinter Technics de Mexico S.A. de C.V., Puebla/Mexico	100.00	100.00	4
CeramTec Acquisition Corporation, Laurens/USA	100.00	100.00	3
CeramTec North America Corporation, Laurens/USA	100.00	100.00	3
DAI Ceramics, Inc., Willoughby/USA	100.00	100.00	3
PST Press + Sintertechnik Sp. z.o.o., Gorzyce/Poland	100.00	100.00	4

- 1 Entities perform the functions of a holding company.
- 2 Entity has been allocated ratably to Medical and Industrial cash-generating units (CGU).
- 3 Entities have been allocated to the Industrial CGU.
- 4 Entities have been allocated to the Emil Müller CGU.
- 5 Entities have been allocated to the CeramTec-ETEC CGU.

CeramTec Holding has a direct shareholding in CeramTec Group GmbH and CeramTec FinCo GmbH, and an indirect shareholding in the other subsidiaries.

CeramTec Group GmbH, CeramTec FinCo GmbH, CeramTec Service GmbH, CeramTec GmbH, Cerasiv GmbH Innovatives Keramik-Engineering, Emil Müller GmbH, and CeramTec-ETEC GmbH make use of the exemption from publishing the financial statements and the management report for the fiscal year 2016 pursuant to Sec. 264 (3) HGB.

1.4 Changes to the consolidated group

There were no changes in the scope of consolidation in the fiscal year.

2 Accounting principles

2.1 Basis of consolidation

Entities included in the consolidated financial statements are included as of the date on which CeramTec Holding obtains control over them. They are deconsolidated on the date on which CeramTec Holding ceases to have control.

In accordance with IFRS 10, uniform accounting policies are used to prepare the separate financial statements of the companies included in the consolidated financial statements.

All significant intercompany receivables and liabilities, revenue, income and expenses and any intercompany profits and losses are eliminated. Pursuant to IAS 12, deferred tax liabilities are recognized for temporary differences arising from consolidation entries.

If less than 100 % of equity in a subsidiary is allocable to CeramTec Holding, the interests allocated to the other shareholders are generally disclosed separately under equity as non-controlling interests. For reasons of immateriality, this does not apply to the non-controlling interests in CeramTec India Innovative Ceramic Engineering Pvt. Ltd., Panaji - Goa, India.

Business combinations and goodwill

Business combinations are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value. This is determined as the total of the acquisition-date fair values of the transferred assets, the liabilities assumed from the former owners of the acquired entity and the equity instruments issued by the acquirer in exchange for control of the acquiree. Acquisition-related costs are recognized in profit or loss as incurred.

Goodwill is measured as the excess of the aggregate of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the equity share in the acquiree previously held by the acquirer (if available) over the net of the acquisition-date fair value of the identifiable assets acquired and liabilities assumed. If the fair value of the acquired net assets is higher than the consideration transferred, CeramTec Holding reassesses and examines whether it has correctly identified all acquired assets and all assumed liabilities. In the event of a negative difference - even after reassessment -, the resulting gain is recognized directly in profit or loss.

For acquisitions of equity investments with shares in capital below 100 %, IFRS 3 allows for the goodwill attributable to non-controlling interests to also be recognized. Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on a transaction-by-transaction basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS.

If a company which is part of the CeramTec Holding Group acquires an entity, it measures the financial assets and liabilities for appropriate classification and designation in accordance with the contractual terms, economic conditions and pertinent conditions as of the acquisition date. This also includes separating embedded derivatives in host contracts of the acquiree.

If the business combination is achieved in stages, previously held equity interests are remeasured at their acquisition-date fair value. Any gain or loss is recognized through profit or loss. It is taken into account when determining the goodwill.

All contingent consideration which must be transferred by the acquirer is recognized at fair value as of the date of acquisition. A contingent consideration classified as an asset or liability, which is recognized as a financial instrument under IAS 39 *Financial Instruments: Recognition and Measurement*, is measured at fair value. Changes in the fair value are recognized either through profit or loss or under other comprehensive income depending on the classification. Should the contingent consideration not fall under IAS 39, it is accounted for under IAS 37 Provisions, Contingent Liabilities and Contingent Assets, as appropriate. If the contingent consideration is classified as equity, it is not remeasured and its subsequent settlement is accounted for within equity.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is tested for impairment at least once a year (in the fourth quarter) as well as if there are indications of impairment. For the purpose of impairment testing, goodwill acquired in a business combination must, from the acquisition date, be allocated to each of the cash-generating units of CeramTec Holding, which is expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the acquirer are assigned to those units or groups.

Where goodwill forms part of a cash-generating unit and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal of the operation. If the internal management reporting structure is reorganized, any goodwill allocated to a cash-generating unit is reallocated based on the new reporting structure. Any goodwill reallocated under these circumstances is measured based on the relative values of the newly established operation and the portion of the cash-generating unit.

Foreign currency translation

The consolidated financial statements are prepared in euros, the functional currency of the CeramTec Holding Group. The financial statements prepared by entities that use a different functional currency are translated into euros in accordance with IAS 21. The equity of the foreign entities included in the consolidated financial statements is translated at the historical rate. The remaining items of the statement of financial position are translated at the respective closing rates. Income and expenses are translated at average annual rates. These are calculated as the mean value from the individual average monthly rates of the past twelve months.

Differences from the currency translation of assets and liabilities compared to the translation of the prior year as well as exchange differences between the income statement and the statement of financial position are recognized under other comprehensive income and retained in equity under accumulated other comprehensive income. These amounts recognized under other comprehensive income are reclassified to the income statement upon the partial or complete disposal of a subsidiary included in the consolidated financial statements.

Foreign currency transactions in the local financial statements are translated at the spot rate at the date of the transaction.

The exchange rates of significant currencies used for the currency translation to the euro is as follows:

		31 December 2016		31 December 2015	
		Closing rate	Average rate	Closing rate	Average rate
USD	USA	1.0541	1.1066	1.0887	1.1097
CNY	China	7.3202	7.3496	7.0608	6.9734
GBP	Great Britain	0.8562	0.8189	0.7340	0.7260
PLN	Poland	4.4103	4.3636	4.2639	4.1829
CZK	Czech Republic	27.0210	27.0343	27.0230	27.2856

The individual items of the statement of cash flows are translated at average rates, while cash and cash equivalents are measured at the spot rate at the balance sheet date.

2.2 Accounting policies

Revenue recognition

Revenue is recognized to the extent that it is probable that the economic benefits from the transaction will flow to the CeramTec Holding Group and the revenue can be reliably measured. Revenue is measured at the fair value of the consideration received or receivable less any trade discounts and volume rebates granted. Revenue and other income are recognized as follows:

Revenue from the sale of goods

Revenue from the sale of goods is recognized upon delivering the goods and transfer of ownership if the following criteria are satisfied:

- The Group has transferred to the buyer the significant risks and rewards of ownership of the goods and merchandise sold
- The Group retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods and merchandise sold
- The amount of revenue can be measured reliably
- It is probable that the economic benefits associated with the transaction will flow to the consolidated group and
- The costs incurred or to be incurred in respect of the transaction can be measured reliably.

Services

Revenue from services is recognized using the percentage of completion method if

- The amount of revenue can be determined reliably
- It is probable that the economic benefits associated with the transaction will flow to the consolidated group
- The stage of completion of the transaction at the end of the reporting period can be determined reliably and
- The costs incurred for the transaction and the costs to complete the transaction can be determined reliably.

Interest income, royalties, dividend income

Interest income is recognized pro rata temporis using the effective interest method. Income from royalties is recognized in accordance with the terms of the underlying contracts on an accrual and pro rata basis. Dividend income is recognized when the right to receive payment is established.

Research and development costs

Research costs are expensed as incurred. If the requirements for capitalization are not satisfied, development costs are recognized in profit or loss in the period in which they are incurred.

Intangible assets

Intangible assets are recognized if a future economic benefit is probable and can be measured reliably.

Individually acquired intangible assets are stated at cost. The cost of intangible assets acquired in a business combination is their acquisition-date fair value. Internally generated intangible assets are stated at the cost that arises during the development phase if all of the following criteria are met:

- Technical feasibility of completing the intangible asset
- Intention to complete the intangible asset and use or sell it
- Ability to use or sell the intangible asset
- Existence of a market or the usefulness of the intangible asset can be demonstrated if it is to be used internally
- Availability of technical and financial resources to complete the development

- Ability to measure reliably the expenditure attributable to the intangible asset during its development

Following initial recognition, intangible assets are carried at cost less accumulated amortization and any accumulated impairment losses.

Intangible assets with finite useful lives are amortized on a straight-line basis over their useful life. Intangible assets acquired during the year are amortized pro rata temporis. The useful life and amortization method are reviewed at least annually at the end of each fiscal year. Changes are treated as changes in accounting estimates. Amortization is recognized in the cost of sales, research and development, general administrative and selling costs. The useful life for technology amounts to 10 to 18 years, and for customer relationships 5 to 18 years. Intangible assets with finite useful lives are tested for impairment if there is an indication that the asset may be impaired.

Intangible assets with an indefinite useful life are tested annually for impairment. If the carrying amount of the asset is no longer recoverable, an impairment loss is recognized. Trademarks are assigned an indefinite useful life based on expectations of future use. It is assumed that trademark rights purchased as part of the acquisition of DAI Ceramics, Inc. have a useful life of 10 years.

Impairment is assessed by comparing the carrying amount of the intangible assets with its recoverable amount at the level of the cash-generating unit. Intangible assets are grouped at the lowest level for which the cash flows can be separately identified. The recoverable amount of a cash-generating unit is defined as the higher of the fair value less the costs to sell and the value in use of a cash-generating unit. An impairment loss is charged if the carrying amount exceeds the recoverable amount. In the event that the impairment loss is reversed, the amortized cost is written up.

Property, plant and equipment

Property, plant and equipment are recognized at cost if a future economic benefit is probable and can be measured reliably. The cost of internally generated property, plant and equipment comprises direct material and labor costs as well as the directly attributable material and labor overheads. If the requirements of a qualifying asset are met, the cost also includes borrowing costs incurred during production pursuant to IAS 23. A qualifying asset is an asset that necessarily takes a substantial period of time to get ready for its intended use or sale.

Following initial recognition, property, plant and equipment are carried at cost less accumulated depreciation and any accumulated impairment losses.

Property, plant and equipment are generally depreciated using the straight-line method. Property, plant and equipment acquired during the year are depreciated pro rata temporis. The useful lives of property, plant and equipment amount to 10 to 40 years for buildings and building

components, 3 to 25 years for plant and machinery as well as 3 to 12 years for other equipment, furniture and fixtures. Low-value assets with an acquisition cost not exceeding EUR 150 are expensed immediately in the year of acquisition. Low-value assets with a cost of between EUR 150 and EUR 1,000 are recognized in a catch-all item and depreciated collectively over five years using the straight-line method.

Property, plant and equipment are tested for impairment if there is an indication that the asset may be impaired. Impairment is assessed by comparing the carrying amount of the item of property, plant and equipment with its recoverable amount at the level of the cash-generating unit. Property, plant and equipment are grouped at the lowest level for which the cash flows can be separately identified. The recoverable amount of a cash-generating unit is defined as the higher of the fair value less the costs to sell and the value in use of a cash-generating unit. An impairment loss is charged if the carrying amount exceeds the recoverable amount. In the event that the impairment loss is reversed, the amortized cost is written up.

Leases

The determination of whether an arrangement contains a lease is based on the substance of the arrangement at inception date and requires an assessment of whether the fulfillment of the arrangement is dependent on the use of a specific asset or assets and the arrangement conveys a right to use the asset. A reassessment after the inception of the lease is only performed under the conditions set forth in IFRIC 4.

A lease is classified as a finance lease if substantially all risks and rewards incidental to ownership are transferred to the lessee. Each leased asset is recognized under property, plant and equipment at its fair value or, if lower, at the present value of the minimum lease payments. The corresponding liability is disclosed as a finance lease obligation under financial liabilities to third parties. The leased asset is depreciated in subsequent periods over the contractual term or the shorter useful life. Payment to the lessor is divided into interest and repayment components, with the interest components recognized as a constant rate of interest of the remaining lease liability through profit or loss over the term of the lease.

All other leases are classified as operating leases. Rental payments under such lease arrangements are recognized as an expense on a straight-line basis.

Government grants

Government grants are recognized if there is reasonable assurance that they will be received and the Company will comply with the conditions attaching to them. Government grants are recognized in profit or loss in the period in which the corresponding expenses are recognized. Government grants for investment projects directly reduce the cost of the corresponding items of property, plant and equipment upon first-time recognition. Government grants related to income are offset against the corresponding expenses.

Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Financial instruments comprise primary and derivative financial instruments.

Primary financial instruments are generally measured at fair value upon first-time recognition. This includes current and non-current investments as well as granted loans and receivables and financial liabilities.

Derivatives are initially recognised at fair value at the date the derivative contracts are entered into and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognised in profit or loss immediately unless the derivative is designated and effective as a hedging instrument, in which event the timing of the recognition in profit or loss depends on the nature of the hedge relationship.

Financial assets

Financial assets are allocated to the following categories:

- Financial assets at fair value through profit or loss
- Loans and receivables
- Held-to-maturity investments
- Available-for-sale financial assets

Classification depends on the nature and purpose of the financial asset and is designated upon addition. Items are reclassified on the reporting date where permitted and necessary.

Financial assets are initially recognized at fair value. Transaction costs directly attributable to the acquisition of financial assets that are not measured at fair value through profit or loss increase the carrying amount of the financial asset initially recognized. Transaction costs directly allocated to financial assets that are recognized at fair value through profit or loss are recognized directly in the income statement.

Purchases or sales of financial instruments that require delivery of assets within a time frame established by regulations or conventions in the marketplace (securities spot transactions) are recognized on the trade date, i.e. the date that the group companies commit to purchase or sell the asset.

The subsequent measurement of the financial assets depends on their designation to the below mentioned categories.

Financial assets at fair value through profit or loss encompass financial assets held for trading and financial assets designated upon initial recognition as measured at fair value through profit or loss. Financial assets are classified as held for trading if they were acquired for the purpose of selling or repurchasing in the near term. Derivative financial instruments, including embedded derivatives to be separated from the host contract, are also classified as held for trading if they are not designated as effective hedging instruments within the scope of IAS 39. As of the reporting date, the CeramTec Holding Group has not made use of the option to designate primary financial instruments upon initial recognition as financial assets at fair value through profit or loss. Changes in the fair value of financial assets measured at fair value through profit or loss are presented as finance income or finance costs in the income statement. Within the CeramTec Holding Group, the termination rights agreed in the bond represent embedded derivatives to be separated which are allocated to the "held-for-trading" category.

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. In the case of the CeramTec Holding Group, this relates to cash and cash equivalents, trade receivables and other financial receivables. After initial recognition, financial assets categorised under loans and receivables are accounted for at amortised cost using the effective interest rate method, less any impairment losses. When calculating amortised cost, premiums or discounts are taken into account as well as fees or costs which are an integral part of the effective interest method. The effective interest rate is recognised in the interest result. If there is any objective evidence of impairment of loans and receivables (e.g., with regard to considerable financial difficulties or significant changes in the environment of the debtor), impairment losses are charged and recognised under other operating expenses through profit or loss. For trade receivables, impairment losses are charged using an allowance account. Trade receivables are derecognised if a bad debt is actually incurred. The impairment loss is reversed if the reasons for charging the impairment loss again no longer apply.

Held-to-maturity investments are non-derivative financial assets with fixed or determinable payments and fixed maturity which the CeramTec Holding Group intends to hold to maturity and is also generally able to do so. After initial recognition, financial assets under this category are accounted for at amortized cost using the effective interest rate method, less any impairment losses. The CeramTec Holding Group does not have any held-to-maturity investments.

Available-for-sale financial assets relate to acquired equity and debt instruments. Equity instruments classified as available for sale are those that are not held for trading or measured at fair value through profit or loss. Debt instruments allocated to this category which are held for an indefinite period of time may be sold in response to changes in market conditions or when liquidity is required. After initial recognition, available-for-sale financial assets are subsequently measured at fair value. Changes in fair value are recognized as unrealized gains and losses under other comprehensive income until the available-for-sale financial assets are derecognized or an impairment loss is charged. At this point in time the gains or losses are reclassified from other comprehensive income to the income statement. The CeramTec Holding Group does not hold any available-for-sale financial assets.

A financial asset is derecognized if the contractual rights to receive cash flows from the financial asset expire, or if the Group has transferred to a third party its contractual rights to receive the cash flows from the financial asset, or has assumed a contractual obligation to pass those cash flows on without delay to a third party, when the risks and rewards of ownership of the asset, or control of the asset, have been transferred.

Financial liabilities

Financial liabilities are categorized upon initial recognition either as financial liabilities at fair value through profit or loss or as other financial liabilities. Financial liabilities are initially recognized at fair value. Transaction costs directly attributable to the issue of financial liabilities that are not measured at fair value through profit or loss decrease the amount of the financial liability initially recognized. Transaction costs directly attributable to financial liabilities that are recognized at fair value through profit or loss are recognized directly in the income statement. The financial liabilities of the CeramTec Holding Group relate to trade payables, bonds and loans as well as liabilities to banks, finance lease liabilities, derivative financial instruments and other financial liabilities.

The subsequent measurement of financial liabilities depends on their designation to the following categories:

Financial liabilities at fair value through profit or loss include financial liabilities held for trading as well as financial liabilities categorized upon initial recognition as financial liabilities at fair value through profit or loss. Financial liabilities are classified as held for trading if they are held for the purpose of selling in the near future. Derivative financial instruments, including embedded derivatives to be separated from the host contract, are also classified as held for trading if they are not designated as effective hedging instruments within the scope of IAS 39. Changes in the fair value of financial liabilities measured at fair value through profit or loss are presented as finance income or finance costs in the income statement. Within the CeramTec Holding Group, the interest rate floors contained in the syndicated loan agreement represent separated embedded derivatives which are allocated to the held-for-trading category.

Other financial liabilities are all liabilities that are not measured at fair value through profit or loss. They are measured at amortized cost using the effective interest method. When calculating amortized cost, markdowns or markups are taken into account as well as fees or costs which are an integral part of the effective interest method. The effective interest rate is recognized in the interest result. Other financial liabilities of the CeramTec Holding Group include trade payables, bonds, liabilities to banks, finance lease liabilities and other financial liabilities.

A financial liability is derecognized when the obligations named in the agreement are settled, canceled or expire.

Offsetting financial instruments

Financial assets and liabilities are offset and the net amount reported in the statement of financial position if there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously.

Hedges

Hedge accounting denotes a special form of accounting that modifies the accounting treatment of the hedged item and hedging instrument in a hedging relationship such that the results of measuring the hedged item or hedging instrument are recognized in the same period directly in equity or in profit or loss. Accordingly, hedge accounting recognizes the offsetting effects of changes in the values of the hedging instrument and the hedged item. IAS 39 provides for three types of hedging relationship where the strict requirements for hedge accounting in individual cases are met:

- Fair value hedge, when the risk of changes in the fair value of a recognized receivable or liability or an unrecognized contractual obligation is hedged
- Cash flow hedge, when the risk of changes in cash flows is hedged, associated with a recognized receivable or liability or a highly probably forecast transaction, or with a currency risk of an unrecognized contractual obligation
- Hedge of a net investment in a foreign operation.

The CeramTec Holding Group uses currency swaps in order to hedge most of the foreign currency risks resulting from the USD loans. These hedges are recognized as cash flow hedges, with the effective part of the change in fair value of derivatives designated as hedging instruments recorded under other comprehensive income, while the ineffective part of the change in value is immediately recognized in profit or loss. Changes in value recognized in other comprehensive income are reclassified to the profit or loss in the period in which the hedged item affects the profit or loss for the period.

Measurement at fair value

On the reporting date, the CeramTec Holding Group measures derivative financial instruments at fair value. The fair value is also stated in the notes to the financial statements for all other financial instruments.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. This applies regardless of whether the price is directly observable or has been determined by applying a valuation method. Measurement at fair value is based on the assumption that the transaction, in order to sell or transfer the asset or liability, is performed in one of the following places:

- On the principal market for the asset or the liability or,
- if there is no principal market, on the most advantageous market for the asset or the liability.

The principal market or the most advantageous market must be accessible for the CeramTec Holding Group as of the reporting date.

When calculating the fair value of an asset or a liability, the Group takes into account certain characteristics of the asset or the liability (such as condition and location of the asset or limitations of sale and use) if market participants also took these characteristics into account when determining the price for the acquisition of the respective asset or transferring the liability as of the reporting date.

Fair value measurement of a non-financial asset takes into account the ability of a market participant to generate economic benefits through the best use of the asset or by selling it to another market participant that would find the best use for the asset.

Inventories

Inventories are measured at the lower of cost or net realizable value.

Costs of purchase comprise the purchase price as well as all other ancillary costs directly attributable to the acquisition. Costs of purchase are determined using the moving weighted average cost method.

In addition to direct material and labor costs, costs of conversion comprise a share of production-related material and labor overheads, including depreciation insofar as this is a consequence of the production process, as well as production-related administrative costs. Production costs do not contain any borrowing costs incurred during production as inventories held at the CeramTec Holding Group are not qualifying assets pursuant to IAS 23.

Inventories are written down to reflect risks from reduced salability. The net realizable value is the selling price during the ordinary course of business less the estimated costs of completion and selling costs. Previously recognized write-downs are reversed if the reasons for the write-downs cease to apply. In this case, the reversal is limited to the amount of the original write-down.

Cash and cash equivalents

Cash and cash equivalents generally comprise cash in hand and bank deposits as well as cash and short-term deposits with an original term of up to three months. The cash and cash equivalents reported in the statement of cash flows correspond to the amounts recognized in the statement of financial position.

Provisions for pension obligations

Defined benefit obligations are measured using the projected unit credit method. These take into account the benefits vested in the current period and previous periods in exchange for the work performed by employees. When calculating the amount of total obligations, adjustment to salaries and pensions expected in the future as well as the probability of employee turnover depending on age and gender are also factored into calculations. Pension obligations in Germany are determined on the basis of the 2005G standard tables of Prof. Dr. Klaus Heubeck. Pension obligations outside of Germany are determined taking into account country-specific parameters.

The obligations are discounted using discount rates derived from high-quality, fixed-interest corporate bonds with the same currency and term. If no high-quality, fixed-interest corporate bonds are available, yields on government bonds are used instead. Net interest on the net liability is determined by multiplying the net liability with the discount rate.

Remeasurements comprise actuarial gains and losses, the return on plan assets and changes in the effect of the asset ceiling while excluding net interest on the net liability. These are recognized in other comprehensive income. Remeasurements are not reclassified to the income statement in later periods.

Past service cost results from the change in the present value of the defined benefit obligation arising from a plan amendment or curtailment and is recognized as an expense.

The fair value of the plan assets is deducted from the present value of the pension obligations. Plan assets are assets that are held by a long-term employee benefit fund. This fund must be legally separate from the reporting entity and exist solely to pay or fund employee benefits.

Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event and it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate can be made of the amount of the provision. Information on estimation uncertainties can be found in note 2.3 Estimation Uncertainties and Exercise of Judgment.

The amount of the provision recognized is the best estimate of the expenditure required to settle the present obligation as of the reporting date. The best estimate must take account of inherent risks and uncertainties. If a provision is measured on the basis of the estimated cash flow required to settle the obligation, these cash flows are discounted in cases where the effect of the time value of money is significant.

If it can be assumed that portions of or the entire economic benefits required to settle the provision are reimbursed by an external third party, this claim is recognized as an asset if the reimbursement is virtually certain and its amount can be reliably determined. The amount recognized for the reimbursement should not exceed the amount of the provision.

Contingent liabilities and contingent assets

Contingent liabilities are not recognized in the consolidated statement of financial position. They are disclosed in the notes to the financial statements, unless an outflow of resources embodying economic benefits is very unlikely. Contingent assets are also not shown in the statement of financial position. They are described in the notes to the financial statements provided an inflow of economic benefits is regarded as probable.

Taxes

Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities based on the tax rates that have been enacted or substantively enacted as of the reporting date.

Deferred tax assets and liabilities are recorded for all deductible and taxable temporary differences between the carrying amounts in the tax accounts and the IFRS consolidated statement of financial position. Deferred tax assets also include tax refund claims that result from the expected utilization of existing unused tax losses or interest carryforwards in subsequent years, the realization of which can be assumed with reasonable assurance. Deferred tax assets and deferred tax liabilities are measured at the tax rates that are expected to apply when the temporary differences are likely to reverse, based on tax rates and tax laws that have been enacted or substantively enacted as of the reporting date of the relevant company.

Current and deferred tax are recognised in profit or loss, except when they relate to items that are recognised in other comprehensive income or directly in equity, in which event the current and deferred tax are also recognised in other comprehensive income or directly in equity respectively.

Deferred tax assets and deferred tax liabilities are offset if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred tax assets relate to the same taxable entity and the same taxation authority.

There is a consolidated tax group for income tax purposes between CeramTec Holding (as the parent), CeramTec Group GmbH, CeramTec FinCo GmbH, CeramTec Service GmbH, CeramTec GmbH, Cerasiv GmbH Innovatives Keramik-Engineering, CeramTec-ETEC GmbH and Emil Müller GmbH. There is also a consolidated tax group for VAT purposes between CeramTec Service GmbH as the parent company and CeramTec GmbH, Cerasiv GmbH Innovatives Keramik-Engineering, CeramTec-ETEC GmbH and Emil Müller GmbH.

2.3 Estimation uncertainties and exercise of judgment

The preparation of the consolidated financial statements requires management to make judgments, estimates and assumptions that affect the reported amounts of income, expenses, assets and liabilities, and the disclosure of contingent liabilities, at the reporting date. These estimates and assumptions are made to obtain an appropriate overview of the net assets, financial position and results of operations of the CeramTec Holding Group. The underlying assumptions are revised regularly. However, the actual results may vary from those anticipated.

In the process of applying the accounting policies of the CeramTec Holding Group, management performed the following measurements which have a significant impact on the consolidated financial statements.

Business combinations

Business combinations are accounted for using the acquisition method. The acquired assets and liabilities are measured at their acquisition-date fair value.

Using the acquisition method requires certain estimates and judgments, particularly with regard to determining the fair value of the acquired intangible assets and property, plant and equipment as well as the liabilities assumed. The expected useful lives of the acquired intangible assets and property, plant and equipment also have to be determined.

This measurement is largely based on estimated future cash flows. Deviations between the actual cash flows and those determined when calculating the fair value can have a significant effect on the future net income for the period of the CeramTec Holding Group.

Goodwill of EUR 557,961k (31 December 2015: EUR 557,567k) was recognized as of the reporting date. Furthermore, other intangible assets of EUR 557,421k (31 December 2015: EUR 603,922k) are disclosed.

Impairment of non-financial assets

Assumptions were made to calculate the recoverable amount to determine whether impairment losses had to be recognized on intangible assets and property, plant and equipment. In this regard, future cash flows were derived from the budget planning and medium-term forecast for each of the cash-generating units. Management assumes that the assumptions and estimates, on which the discounted cash flows are based, are accurate. Nevertheless, changes in the economic environment and growth assumptions can affect impairment testing resulting in the need to recognize impairment losses or to reverse impairment losses in the future.

Impairment losses recognized on non-financial assets for the fiscal year and comparative period can be found in notes 4.1 Intangible Assets and 4.2 Property, Plant and Equipment.

Valuation allowances on receivables

The recoverability of trade receivables was assessed based on the estimated likelihood of default. Accordingly, receivables are reduced by appropriate allowances for amounts estimated to be irrecoverable (for example receivables from customers on whose assets insolvency proceedings have been initiated are written off in full to the extent that any collateral provided is not recoverable). As of the reporting date, an impairment loss of EUR 535k (31 December 2015: EUR 644k) was identified as necessary.

Provisions for pension obligations

Defined benefit plans are measured using actuarial valuations. These contain assumptions of discount rates, future salary trends, mortality rates and future pension increases.

Provisions for pension obligations of EUR 102,410k (31 December 2015: EUR 86,071k) were recorded as of the end of the reporting period.

Provisions

Provisions for the expected expenses from warranty obligations in accordance with national sales contract law are recognized as of the date on which the relevant products are sold according to the management's best estimate regarding the expenses required to settle the Group's obligation.

A provision is set up for the obligation to eliminate environmental damage if it is likely to be utilized and the costs can be estimated reliably. With ongoing examination and over the course of performing renovation measures, the provisions are adjusted in line with the knowledge gained. The amount of the individual provisions is influenced by factors such as the extent of the contamination, the renovation measures called for and additional demands from authorities, companies or private persons.

Provisions of EUR 29,851k (31 December 2015: EUR 19,098k) were recorded as of the end of the reporting period.

Deferred tax assets

The calculation of deferred tax assets requires assumptions to be made relating to the future taxable income and temporal use of deferred tax assets. These assumptions take into account the anticipated development and effect on earnings from the reversal of taxable temporary differences. As future business developments cannot be foreseen with certainty and are not entirely within the CeramTec Holding Group's sphere of influence, the measurement of deferred tax assets involves a level of uncertainty.

As of the reporting date, deferred tax assets of EUR 851k (31 December 2015: EUR 1,085k) were recognized.

2.4 Adoption of amended and new standards and interpretations: Changes in accounting policies due to first-time adoption of revised and newly issued IFRSs and IFRICs

Revised and newly issued IFRSs and IFRICs not yet compulsory

Adoption of the following revised and newly issued IFRSs and IFRICs was not yet compulsory in the fiscal year and/or they had not yet been endorsed by the European Commission for adoption in the European Union. In the fiscal year, none of these new or amended standards and interpretations were adopted earlier.

Standards and interpretations	Date of first-time adoption
IFRS 14: "Accounting for Regulatory Deferral Accounts"	1 January 2016
Amendments to IFRS 11: "Accounting for Acquisitions of Interests in Joint Operations"	1 January 2016
Amendments to IAS 16 and IAS 38: "Acceptable Methods of Depreciation and Amortisation"	1 January 2016
Amendments to IAS 16 and IAS 41: "Agriculture: Bearer Plants"	1 January 2016
Amendments to IAS 27: "Equity Method in Separate Financial Statements"	1 January 2016
Amendments to IFRS 10 and IAS 28: "Sales or Contributions of Assets Between an Investor and its Associate/Joint Venture"	deferred indefinitely
Annual Improvements Project (2012 - 2014) – September 2013	1 January 2016
Amendments to IAS 1: "Presentation of Financial Statements"	1 January 2016
Amendments to IFRS 10, IFRS 12 and IAS 28: "Investment Entities: Applying the Consolidation Exception"	1 January 2016
Amendments to IAS 12: "Recognition of Deferred Tax Assets for Unrealised Losses"	1 January 2017
Amendments to IAS 7: "Disclosure of Changes in Liabilities Arising from Financing Activities"	1 January 2017
Annual Improvements Project (2014 - 2016) for IFRS 12	1 January 2017
IFRS 15: "Revenue from Contracts with Customers"	1 January 2018
IFRS 9: "Financial Instruments"	1 January 2018
Amendments to IFRS 2: "Accounting for Cash-settled Share-based Payment Transactions"	1 January 2018
Amendments to IFRS 4: "Effects of the Different Initial Application Dates of IFRS 9 and the Standard Superseding IFRS 4"	1 January 2018
Annual Improvements Project (2014 - 2016) for IFRS 1 and IAS 28	1 January 2018

Standards and interpretations	Date of first-time adoption
IFRIC 22: "Accounting for Transactions that Include Consideration in a Foreign Currency"	1 January 2018
Amendments to IAS 40: "Transfers to or from Investment Property Classification"	1 January 2018
IFRS 16: "Accounting for Leases"	1 January 2018

No significant effects are expected on the consolidated financial statements of CeramTec Holding.

3 Notes to the consolidated statement of comprehensive income

3.1 Revenue

Revenue results primarily from the sale of goods and merchandise. Revenue breaks down into regions and product groups as follows:

	2016 EUR k	2015 EUR k
Regions		
Europe	210,773	209,314
Germany	133,068	130,235
North America	72,979	83,549
Asia	61,393	62,739
Rest of world	15,100	15,494
Total	493,313	501,331
Product groups		
Industrial applications	307,763	318,612
Medical applications	185,550	182,719
Total	493,313	501,331

3.2 Cost of sales

The cost of sales breaks down as follows:

	2016 EUR k	2015 EUR k
Material and packaging costs	88,687	94,800
Amortization and depreciation	49,890	50,414
Personnel expenses	113,504	108,477
Other costs of sales	42,848	46,265
Total	294,929	299,956

Other costs of sales primarily contain energy costs and maintenance expenses.

3.3 Selling costs

Selling costs primarily contain amortization and depreciation as well as personnel expenses.

3.4 Research and development costs

Research and development costs mainly contain personnel expenses.

3.5 General administrative costs

General administrative costs primarily contain personnel expenses.

3.6 Other income / expenses (-), net

Other income / expenses (-), net breaks down as follows:

	2016 EUR k	2015 EUR k
	<hr/>	<hr/>
Foreign currency results	3	1,990
Income from reversal of provisions	79	400
Restructuring costs	-61	-735
Write-downs and impairment	-2,498	-778
Allowance for bad debts	-118	-186
Income from recovery of receivables which had been written off	58	12
Losses on sales of property, plant and equipment	-64	-99
Sundry other income	611	649
Sundry other expenses	-231	-805
Total	<hr/> -2,221 <hr/>	<hr/> 448 <hr/>

Restructuring costs primarily contain personnel expenses.

Write-downs and impairment mainly related to the write-off of two capitalized technologies (other intangible assets).

3.7 Financial result

The financial result breaks down as follows:

	2016 EUR k	2015 EUR k
Interest income and other finance income		
Gains on derivative valuations	18,637	5,308
Exchange rate gains	1	0
Other interest income	96	100
Total	18,734	5,408
Interest expenses and other finance costs		
Interest expense from syndicated loan	25,430	28,760
Interest expense from bond	25,303	25,303
Interest expense from effective interest method	5,731	7,152
Interest expense from shareholder loans	11,895	11,024
Exchange rate losses	2,296	6,933
Other interest expenses	2,941	2,732
Less: Borrowing costs capitalized as part of qualifying assets	0	-205
Total	73,596	81,699
Total financial result	-54,862	-76,291

The exchange rate losses result from loans that are not granted in the functional currency of the group companies concerned. More information on interest income and interest expenses from derivatives can be found in note 4.16.

Other interest expenses of EUR 2,102k (previous year: EUR 1,839k) are due to unwinding the discount on provisions.

3.8 Income tax

There is a consolidated tax group for income tax purposes between CeramTec Holding and its German subsidiaries. This means that German corporate income tax and trade tax is only levied at the level of the parent company, CeramTec Holding. CeramTec Holding also has indirect shareholdings in foreign corporations. The current income taxes of the CeramTec Holding Group therefore include, in addition to German corporate income tax and trade tax, the tax expense of the foreign corporations, which was calculated based on taxable income according to local tax law and the tax rate applicable in each case.

A profit or loss for the period before income tax of EUR 4,836k (previous year: EUR -6,615k) is allocable to Germany and abroad as follows:

	2016 EUR k	2015 EUR k
Germany	-5,874	-15,168
Abroad	10,710	8,553
Total	4,836	-6,615

Tax expense of EUR 10,010k (previous year: EUR 7,694k) breaks down as follows:

	2016 EUR k	2015 EUR k
Current income tax expense	-17,132	-18,474
Deferred tax income	7,122	10,780
Income tax expense (-) / benefit (+)	-10,010	-7,694

Overall, this produces a weighted tax rate for the CeramTec Holding Group of 28.5 % (previous year: 28.5 %). The following table presents a reconciliation of the nominal to the effective tax rate (i.e., tax expense in relation to profit or loss before income tax). The effective tax rate factors in both the current and the deferred tax expense and takes into account all influences, such as non-deductible operating expenses or a change in the assessment base.

	2016		2015	
	EUR k	%	EUR k	%
Profit or loss before income tax	4,836		-6,615	
Expected income tax benefit (+) / Income tax expense (-)	-1,378	28,5	1,886	28,5
Permanent differences	-2,142	44,3	-2,058	-31,1
Non-recognition of deferred tax assets on interest carryforwards	-6,606	136,6	-6,277	-94,9
Tax expense (-) / Tax benefit (+) for previous years	191	-4,0	-373	-5,6
Valuation allowances concerning deferred tax assets recognized for temporary differences	-119	2,5	-798	-12,1
Other adjustments	44	-0,9	-74	-1,1
Income tax expense (-) / Income tax benefit (+) and effective tax rate	-10,010	207,0	-7,694	-116,3

The effects of permanent differences result mainly from additions of EUR 2,106k (EUR 2,121k) to operating profit which is subject to German trade tax, other non-deductible operating expenses of EUR 215k (previous year: EUR 160k), and tax-free income of EUR -179k (previous year: EUR -223k).

Deferred taxes

Deferred income taxes were calculated using the expected tax rate of the relevant company. The deferred taxes are offset where there is an enforceable legal right to offset current taxes and they are levied by the same tax authority. The deferred tax assets and liabilities stem from the following:

	31 December 2016		31 December 2015	
	Assets EUR k	Liabilities EUR k	Assets EUR k	Liabilities EUR k
Tax loss carryforwards	89	0	445	0
Property, plant and equipment	196	23,092	185	24,244
Goodwill and other intangible assets	9,622	156,040	12,872	166,389
Inventories, receivables and other assets	1,487	24,861	1,114	18,823
Non-current provisions and liabilities	31,945	2,152	25,018	2,509
Current provisions and other liabilities	7,795	396	6,537	467
Total deferred taxes	51,134	206,541	46,171	212,432
Offsetting	-50,283	-50,283	-45,086	-45,086
Deferred tax assets / liabilities	851	156,258	1,085	167,346

Other comprehensive income contains deferred tax income on the remeasurement of pension provisions of EUR 3,989k (2015: deferred tax expenses of EUR 2,762k) and deferred tax expenses on gains from cash flow hedges of EUR 68k (2015: EUR 758k).

Unused tax losses and interest carryforwards

Unused tax losses and interest carryforwards break down as follows:

	31 December 2016 EUR k	31 December 2015 EUR k
Interest carryforwards	97,905	72,989
<i>on which no deferred tax assets are recognized</i>	97,905	72,989
Foreign unused tax losses	3,385	5,181
<i>on which no deferred tax assets are recognized</i>	3,052	3,011
Total unused tax losses	3,385	5,181
<i>on which no deferred tax assets are recognized</i>	3,052	3,011

Deferred tax assets were recognized on unused tax losses of EUR 333k (31 December 2015: EUR 2,170k).

Foreign unused tax losses, for which deferred tax assets have been capitalized, mainly result from unused tax losses made by group companies in Spain of EUR 252k (31 December 2015: EUR 315k), and in India of EUR 81k (31 December 2015: EUR 0k), and in the previous year the Czech Republic (EUR 1,254k), and Poland (EUR 513k).

Temporary differences in connection with shares in subsidiaries in the amount of EUR 2,620k are not subject to deferred tax liabilities, because it is not likely that such temporary differences will reverse in the foreseeable future.

3.9 Additional information on the type of expenses

Cost of materials

In fiscal year 2016, cost of materials amounted to EUR 104,868k (previous year: EUR 113,631k).

Personnel expenses

Personnel expenses break down as follows:

	2016 EUR k	2015 EUR k
Wages and salaries	137,488	133,046
Social security contributions incl. pension expenses	38,811	34,688
Total	176,299	167,734

Personnel expenses are contained in production, selling, research and development, as well as general administration costs.

Employees

On average, the Group employed 3,229 (previous year: 3,301) people in the fiscal year. These break down as follows:

	2016 Headcount	2015 Headcount
Salaried employees	1,170	1,185
Wage earners	2,059	2,116
Total	3,229	3,301

Amortization and depreciation

Amortization and depreciation break down as follows:

	2016 EUR k	2015 EUR k
Amortization of intangible assets	44,901	44,746
Depreciation of property, plant and equipment	38,558	39,094
Impairment of intangible assets	2,471	511
Impairment of property, plant and equipment	26	268
Total	85,956	84,619

4 Notes to the consolidated statement of financial position

4.1 Intangible assets

Intangible assets break down as follows:

	Other intangible assets						Total
	Goodwill	Trade- marks	Techno- logy	Customer relation- ships	Order backlog	Other	
	EUR k	EUR k	EUR k	EUR k	EUR k	EUR k	EUR k
Cost							
1 January 2015	550,820	51,289	236,177	406,843	10,758	4,814	1,260,701
Additions from business combinations	3,653	930	0	5,469	0	784	10,836
Additions	0	0	0	0	0	1,093	1,093
Government grants	0	0	0	0	0	-18	-18
Disposals	0	0	0	0	-10,758	0	-10,758
Reclassifications	0	0	0	0	0	94	94
Exchange differences	3,094	7	0	1,204	0	78	4,383
31 December 2015	557,567	52,226	236,177	413,516	0	6,845	1,266,331
Additions	0	0	0	0	0	656	656
Disposals	0	0	0	0	0	-1	-1
Exchange differences	394	31	0	315	0	46	786
31 December 2016	557,961	52,257	236,177	413,831	0	7,546	1,267,772
Amortizati- on/impairment							
1 January 2015	0	0	18,626	38,309	10,758	2,359	70,054
Additions to amortization	0	54	13,968	29,199	0	1,525	44,746
Additions to impairment	0	0	511	0	0	0	511
Disposals	0	0	0	0	-10,758	0	-10,758
Exchange differences	0	1	0	218	0	71	290
31 December 2015	0	55	33,105	67,726	0	3,956	104,842
Additions to amortization	0	92	13,902	29,428	0	1,479	44,901
Additions to impairment	0	0	2,471	0	0	0	2,471
Disposals	0	0	0	0	0	-1	-1
Exchange differences	0	6	0	131	0	39	176
31 December 2016	0	153	49,478	97,285	0	5,473	152,390
Net carrying amounts							
31 December 2016	557,961	52,104	186,699	316,546	0	2,073	1,115,382
31 December 2015	557,567	52,171	203,072	345,790	0	2,889	1,161,489

Goodwill results from, on the one hand, the acquisition of the high-performance ceramics division in year 2013 and, on the other hand, from the acquisition of DAI Ceramics, Inc. in 2015. It was allocated to the cash-generating units (CGUs) CeramTec (EUR 498,758k), Emil Müller (EUR 39,807k) and CeramTec-E TEC (EUR 19,396k). In 2016, the CeramTec Group's organizational reporting structure was divided in accordance with IAS 36.78 into the Medical and Industrial divisions. Accordingly, the CGU CeramTec was divided, as of 31 December 2016, into the CGUs Medical and Industrial. Goodwill of the CGU CeramTec was, in consequence, allocated to the CGUs Medical (EUR 312,721k) and Industrial (EUR 186,037k).

The CGU CeramTec included all business activities designed to develop, manufacture and sell technical high-performance ceramics products used for medical technology, in the electronics and automotive industries, and for mechanical engineering until 2015 inclusive. In 2016, the business activities designed to develop, manufacture and sell technical high-performance ceramics products used for medical technology were allocated to the CGU Medical. The business activities designed to develop, manufacture and sell technical high-performance ceramics products used in the electronics and automotive industries, and for mechanical engineering, were allocated to the CGU Industrial.

The CGU Emil Müller is predominantly engaged in developing, manufacturing and selling salt cores which are used in foundry technology to manufacture casting components in the automotive industry, as in the previous year.

The CGU CeramTec-E TEC continues to include mainly business activities concerned with ceramic products which are used in ballistic applications, and protect against wear and corrosion.

The purchase price allocation involved, as of 1 September 2013, the trademarks CeramTec, BILOX and SPK being identified and recognized, and, as of 29 May 2015, the trademark DAI Ceramics. These recorded a carrying amount of EUR 52,104k as of 31 December 2016 (31 December 2015: EUR 52,171k). As the recognized trademarks CeramTec, BILOX and SPK do not represent a product-specific trademark and do not have a limited life, the useful life for the recognized trademarks was classified as indefinite. The trademark DAI has a remaining useful life of 8.4 years as of the balance sheet date (31 December 2015: 9.4 years). The trademarks were allocated to the cash-generating unit CeramTec.

Technology has a carrying amount of EUR 186,699k (31 December 2015: EUR 203,072k) and primarily contains the basic technology underlying high-performance ceramics. This has an average weighted remaining useful life of 14.1 years (31 December 2015: 15.1 years).

Customer relationships have a carrying amount of EUR 316,546k (31 December 2015: EUR 345,790k) and primarily contain customer relationships from medical applications. This has an average weighted remaining useful life of 13.0 years (31 December 2015: 14.0 years).

Amortization of other intangible assets is recognized under production, selling, research and development costs as well as general administration costs, and impairment losses are recognised under other operating expenses.

For the cash-generating units, the annual impairment test performed as of 30 November 2015 was based on the CGUs' previous reporting structure, and the annual impairment test performed as of 31 December 2016 was based on the CGUs' new reporting structure. The recoverable amount was calculated based on an asset's value in use. Value in use is calculated by discounting the future cash flows. The measurement is therefore allocable to level 3 pursuant to IFRS 13. The projected future cash inflows are based on approved planning which is undertaken by the CeramTec Group and, as a rule, has a three-year planning horizon. For this purpose, assumptions are made mainly about future selling prices or quantities and costs. The planning period for the CeramTec-ETEC cash-generating unit is different, and covers the time until 2021.

The planning is prepared on the basis of historical experience, and reflects the management's expectations for the next few years.

A long-term growth rate of 1 % was determined for the years beginning in 2020 or 2022. The weighted average cost of capital results from equity costs ranging between 8.00 % - 8.04 %, borrowing costs (before taxes) of 1.65 %, and a tax rate of 26.4 % to 32.8 %. Equity costs were calculated using a base interest rate of 0.60 % and a market risk premium of 6.75 %.

The weighted average cost of capital for the CGUs Medical and Industrial amounts to 7.57 %, and the weighted average cost of capital for the CGUs Emil Müller and CeramTec-ETEC amounts to 7.58 % and 7.54 % respectively.

As value in use of the cash-generating units' assets exceeded each carrying amount, there was no need to recognize impairment losses as of 31 December 2016.

We believe that changes, which are thought possible, in significant basic assumptions (weighted average cost of capital, EBITDA margin, long-term growth rate) underlying the determination of value in use would not result in an excess of the carrying amount of the cash-generating units in question over their value in use when the goodwill of the cash-generating units is significant in relation to the total carrying amount of goodwill.

4.2 Property, plant and equipment

Property, plant and equipment breaks down as follows:

	Land and buildings	Plant and machinery	Other equip- ment	Assets under construc- -tion	Total
	EUR k	EUR k	EUR k	EUR k	EUR k
Cost					
1 January 2015	120,006	215,949	10,792	23,169	369,915
Additions from business combinations	0	2,223	28	0	2,251
Additions	3,912	14,209	2,022	6,575	26,718
Government grants	-239	-1,043	-22	-3	-1,307
Disposals	-200	-5,354	-694	0	-6,248
Reclassifications	4,605	17,451	660	-22,810	-94
Exchange differences	811	2,673	-61	595	4,018
31 December 2015	128,894	246,107	12,726	7,526	395,253
Additions	302	3,795	2,200	7,563	13,860
Government grants	70	3	0	0	73
Disposals	-177	-1,910	-1,005	-1	-3,093
Reclassifications	1,373	7,867	830	-10,070	0
Exchange differences	243	3,667	178	-66	4,022
31 December 2016	130,705	259,529	14,929	4,952	410,115
Amortization/impairment					
1 January 2015	8,356	48,170	3,706	0	60,232
Additions to amortization	7,340	28,651	3,103	0	39,094
Additions to impairment	20	248	0	0	268
Disposals	-98	-4,722	-623	0	-5,443
Exchange differences	97	851	-44	0	903
31 December 2015	15,715	73,198	6,142	0	95,054
Additions to amortization	7,520	27,977	3,061	0	38,558
Additions to impairment	0	26	0	0	26
Disposals	-175	-1,620	-938	0	-2,733
Exchange differences	209	3,275	194	0	3,678
31 December 2016	23,269	102,856	8,459	0	134,583
Net carrying amounts					
31 December 2016	107,436	156,673	6,470	4,952	275,532
31 December 2015	113,179	172,912	6,582	7,526	300,199

Depreciation of property, plant and equipment is recognized under production, selling, research and development and general administration costs, and impairment losses are reported as other expense.

No borrowing costs were capitalized in property, plant and equipment in the fiscal year (previous year: EUR 205k).

There were contractual commitments to acquire property, plant and equipment of EUR 2,702k as of the reporting date (31 December 2015: EUR 1,615k).

Property, plant and equipment under finance leases contains rented buildings with a net carrying amount of EUR 1,412k (31 December 2015: EUR 1,512k) and furniture and fixtures with a net carrying amount of EUR 16k (31 December 2015: EUR 645k). The corresponding lease liabilities are explained under finance liabilities to third parties (note 4.13).

4.3 Other financial assets

The following table breaks down other financial assets by their maturity:

	31 December 2016 EUR k	31 December 2015 EUR k
<i>Other non-current financial assets</i>		
Derivative financial instruments	47,907	47,348
Separated termination rights	24,459	8,946
Insurance claims	118	150
Total	72,484	56,444
<i>Other current financial assets</i>		
Derivative financial instruments	12,212	8,474
Other financial assets	178	41
Total	12,390	8,515

The CeramTec Holding Group has a termination option for the issued bond. This termination option represents an embedded derivative, which is accounted for separately from the underlying transaction. Further explanations can be found in note 4.16.

4.4 Other assets

The following table breaks down other assets by their maturity:

	31 December 2016 EUR k	31 December 2015 EUR k
<i>Other non-current assets</i>		
Deferred finance costs for the revolving credit line	312	784
Sundry assets	399	404
Total	711	1,188
<i>Other current assets</i>		
VAT receivables	992	1,494
Receivables from energy tax refunds	866	825
Deferred finance costs for the revolving credit line	471	471
Investment grants	0	212
Sundry assets	1,939	2,205
Total	4,268	5,207

Sundry current assets primarily contain prepayments.

4.5 Inventories

Inventories break down as follows:

	31 December 2016 EUR k	31 December 2015 EUR k
Raw materials	25,652	24,054
Work in progress	25,989	24,994
Finished goods	21,992	22,885
Merchandise	1,810	1,923
Other	1,461	1,281
Total	76,904	75,137

Other inventories include packaging materials and spare parts for machinery.

At the reporting date the write-downs on inventories amount to EUR 10,117k (31 December 2015: EUR 8,991k). The expense resulting from increasing the write-downs by EUR 1,126k is reported under cost of sales.

4.6 Trade receivables

Trade receivables of EUR 53,553k (31 December 2015: EUR 53,178k) are recognized in the statement of financial position after taking into account impairment of EUR 535k (31 December 2015: EUR 644k).

The value and maturity structure of trade receivables before impairment breaks down as follows:

	31 December 2016 EUR k	31 December 2015 EUR k
Carrying amount before impairment	54,088	53,822
thereof not yet due on the reporting date	43,878	44,380
thereof past due on the reporting date	10,210	9,442
past due up to 30 days	8,062	7,235
past due up to 60 days	1,313	1,285
past due up to 90 days	126	163
past due more than 90 days	709	759

The age structure of the impairment losses recognized through profit or loss as of the reporting date breaks down as follows:

	31 December 2016 EUR k	31 December 2015 EUR k
not yet due	20	15
past due up to 30 days	49	109
past due up to 60 days	44	37
past due up to 90 days	45	95
past due more than 90 days	377	388
Total	535	644

The impairment losses are based on the estimated likelihood of default. They primarily relate to specific bad debt allowances on receivables from customers on whose assets insolvency proceedings were initiated or who are experiencing significant financial difficulty.

The age structure of receivables past due which are not impaired breaks down as follows:

	31 December 2016 EUR k	31 December 2015 EUR k
past due up to 30 days	7,991	7,073
past due up to 60 days	1,250	1,230
past due up to 90 days	61	23
past due more than 90 days	163	185
Total	9,465	8,511

There was no indication as of the reporting date that the debtors of receivables that were not impaired and not past due would not meet their payment obligations.

The following table shows the development of valuation allowances on trade receivables during the past reporting period.

	31 December 2016 EUR k	31 December 2015 EUR k
Valuation allowance at the beginning of the fiscal year	644	459
Addition	87	214
Reversed	-27	-34
Utilization	-176	-19
Foreign currency translation and other	7	24
Valuation allowance on 31 December	535	644

4.7 Cash and cash equivalents

Cash and cash equivalents contain bank balances of EUR 124,557k (31 December 2015: EUR 86,450k) and cash in hand of EUR 28k (31 December 2015: EUR 26k).

4.8 Non-current assets held for sale

Because manufacturing operations were ceased in Colyton, UK, where CeramTec UK Ltd. is situated, which had been announced in 2014, in May 2015 assets reported as property, plant and equipment were reclassified. The assets were sold in years 2015 and 2016.

4.9 Equity

Issued capital

The fully paid in capital stock of the parent company CeramTec Holding amounts to EUR 25k (31 December 2015: EUR 25k).

Capital reserves

Effective as of 31 August 2013/1 September 2013, Faenza Luxembourg S.à.r.l, Luxembourg, increased CeramTec Holding's capital reserves by EUR 378,148k. The capital reserves are freely available and not subject to any earmarking.

Retained earnings

The line item "Retained earnings" contains current losses incurred by the CeramTec Holding Group and those incurred in previous years. This also includes reserves for the remeasurement of pension obligations (after taxes) amounting to EUR -25,093k (31 December 2015: EUR -14,046k).

Other comprehensive income

Accumulated other comprehensive income relates to currency translation adjustments and a reserve for changes in the fair value of hedging instruments, taking into account deferred taxes recorded for the reserve and currency translation adjustments.

4.10 Provisions for pension obligations

Within the CeramTec Holding Group, there are defined benefit and contribution plans in place granting eligible employees benefits in the event of retirement, occupational disability or death – in the latter case to employees' surviving dependents. These benefits are generally based on the length of employee service and level of remuneration or contributions of the eligible employees taking into account conditions in terms of tax, labor and welfare law in the respective country.

In Germany, there are various direct commitments which depend on the pay and period of service and are capped. These commitments do not contain any rights to inflation-related pension adjustments. These defined benefit plans were closed for employees that joined after 1 January 2002. There is also a defined benefit plan in place with direct commitments for a fixed pension amount which depends on the employee's length of service. This plan was also closed for employees that joined after 1 January 2002. For the management of the German CeramTec Holding group companies, there are direct commitments in place comprising benefits that depend on pay and length of service and are capped as well as benefits that are calculated based on the performance of the Company. The eligible employees are also entitled to deferred compensation

which is subsidized by the relevant group company depending on the achievement of personal targets by employees.

Since the end of 2014, the Company has committed itself to directly providing benefits as compensation for a realignment of pension funds for all employees who have been enrolled into Höchster Pensionskasse VVaG as part of the realignment which might be to their disadvantage. The obligation is measured annually by an actuarial expert.

The pension plan in the UK is a funded defined benefit plan. The plan is administered by an external institution managed by employer and employee representatives. The representatives are legally obligated to represent the interests of the entitled employees and are responsible for investment decisions and managing the asset. The pension plan is closed. The plan grants the entitled employees annual pension payments, the amount of which depends on the length of service and the last salary earned. Pension payments are also made in the event of death. The obligation is measured annually by an actuarial expert.

The provisions for pension obligations break down as follows:

	31 December 2016 EUR k	31 December 2015 EUR k
	<u> </u>	<u> </u>
Germany	94,359	78,554
UK	7,855	7,320
Other	196	197
Total	<u>102,410</u>	<u>86,071</u>

The following table shows the amount of the obligation and plan assets as well as the provisions and other assets disclosed in the consolidated statement of financial position as of 31 December 2016.

	German plans EUR k	2016 Foreign plans EUR k	Total EUR k
<u>Change in benefit obligations</u>			
Benefit obligations at the beginning of the fiscal year	78,554	12,765	91,319
Service cost	2,714	30	2,744
Interest expense	1,858	413	2,271
Remeasurements	13,549	2,145	15,694
<i>from the change in financial assumptions</i>	14,240	2,171	16,411
<i>Experience adjustments</i>	-691	-26	-717
Foreign currency translation	0	-1,800	-1,800
Benefits paid	-2,316	-1,083	-3,399
Benefit obligations at the end of the year	94,359	12,470	106,829
<u>Change in plan assets</u>			
Market value of plan assets at the beginning of the fiscal year	0	5,279	5,279
Interest income from plan assets	0	177	177
Expense for managing the plans	0	-286	-286
Employer contributions	0	474	474
Remeasurements	0	491	491
<i>from the change in financial assumptions</i>	0	491	491
Foreign currency translation	0	-685	-685
Benefits paid	0	-1,031	-1,031
Market value of the plan assets at the end of the year	0	4,419	4,419
Net obligation amount for benefits	94,359	8,051	102,410
thereof provisions for pension obligations	94,359	8,051	102,410
thereof other assets	0	0	0

The following table shows the amount of the obligation and plan assets as well as the provisions disclosed in the consolidated statement of financial position in the comparative period as of 31 December 2015.

	German plans EUR k	2015 Foreign plans EUR k	Total EUR k
<u>Change in benefit obligations</u>			
Benefit obligations at the beginning of the fiscal year	83,726	12,821	96,547
Service cost	4,334	36	4,370
Interest expense	1,569	443	2,012
Remeasurements	-8,871	-872	-9,743
<i>from the change in financial assumptions</i>	-8,522	-850	-9,372
<i>Experience adjustments</i>	-349	-22	-371
Foreign currency translation	0	780	780
Benefits paid	-2,204	-443	-2,647
Benefit obligations at the end of the year	78,554	12,765	91,319
<u>Change in plan assets</u>			
Market value of plan assets at the beginning of the fiscal year	0	5,096	5,096
Interest income from plan assets	0	178	178
Expense for managing the plans	0	-306	-306
Employer contributions	0	456	456
Remeasurements	0	-52	-52
<i>from the change in financial assumptions</i>	0	-52	-52
Foreign currency translation	0	332	332
Benefits paid	0	-425	-425
Market value of the plan assets at the end of the year	0	5,279	5,279
Net obligation amount/provisions for benefits	78,554	7,486	86,040
thereof provisions for pension obligations	78,554	7,517	86,071
thereof other assets	0	31	31

The calculation of the pension obligation was based on the following assumptions as of 31 December 2016:

	Germany	Abroad
Interest rate (in %) p.a.	1.60	2.70
Wage and salary trend (in %) p.a.	2.50	N/A
Pension increases (in %) p.a.	2.00	3.00 - 3.40
Life expectancy	2005G standard tables	Mortality tables

The calculation of the pension obligation was based on the following assumptions as of 31 December 2015:

	Germany	Abroad
Interest rate (in %) p.a.	2.40	3.70 - 3.80
Wage and salary trend (in %) p.a.	2.50	N/A
Pension increases (in %) p.a.	2.00	3.00 - 3.20
Life expectancy	2005G standard tables	Mortality tables

The average term of the benefit obligations amounts to 21.7 years in Germany and 18.0 years abroad.

The contributions, which the employer is expected to pay into the plans until the reporting date 31 December 2017, amount to EUR 343k. Benefit payments of EUR 2,633k are expected to be paid for fiscal year 2017.

The risk from changes in actuarial assumptions underlying the measurement of defined pension plans is borne by the relevant group company. The sensitivity analyses presented in the table below were performed based on reasonably possible changes in assumptions as of the reporting date, although each of the remaining assumptions remained unchanged. The change in key actuarial assumptions would have the following impact (in EUR k) on the present value of pension obligations:

	Change	Effect 31 December 2016
Discount rate	- 0.50 % points	12,043
	+ 0.50 % points	-10,312
Wage and salary trend	- 0.50 % points	-237
	+ 0.50 % points	247
Increase in pensions	- 0.50 % points	-10,981
	+ 0.50 % points	12,143
Life expectancy	+ 1 year	4,754

The change in key actuarial assumptions would have had the following impact (in EUR k) on the present value of pension obligations in the previous year:

	Change	Effect 31 December 2015
Discount rate	- 0.50 % points	9,376
	+ 0.50 % points	-8,104
Wage and salary trend	- 0.50 % points	-171
	+ 0.50 % points	175
Increase in pensions	- 0.50 % points	-8,522
	+ 0.50 % points	9,387
Life expectancy	+ 1 year	3,727

There are no plan assets for German plans. The plan assets of the foreign plans break down into the following assets:

	31 December 2016 EUR k	31 December 2015 EUR k
Securities/shares	3,549	3,687
Fixed-interest securities	466	1,108
Real estate	404	484
	4,419	5,279

The fair value of the securities and shares were determined based on prices quoted on active markets, while the fair value of real estate was not based on prices quoted on active markets. The real estate contained in plan assets relates to non-owner-occupied property in the UK. The investment horizon for plan assets takes into account the expected payout profile.

From 1 January 2002 to 31 December 2014, all new hires at CeramTec GmbH, CeramTec Service GmbH and Emil Müller GmbH joined the pension fund Dynamit Nobel VVaG. Furthermore, some active and former employees of CeramTec GmbH and Emil Müller GmbH are members of the pension fund Hoechst-Gruppe VVaG. These pension funds are multi-employer plans which are basically defined benefit plans. The two pension funds are subject to regulatory supervision. In the event that the funds are unable to settle their obligations, the employer is legally liable for the vested benefits (secondary liability). This obligation remains in place even if the CeramTec Holding Group were to terminate its participation in the plans. However, terminating its participation would generally not directly result in having to make supplementary payments. In the consolidated financial statements, these pension plans are classified as defined contribution plans in accordance with IAS 19.34. As several employers are responsible for these pension funds, contributions made by the CeramTec Holding Group can under certain circumstances be used to finance another entity's employee benefits.

Dynamit Nobel VVaG is funded for commitments made before 1 December 2007 with income-based contributions by entitled employees as well as variable employer contributions. The employers' contribution must, together with the member contributions and return on plan assets, sufficiently fund the agreed payments according to actuarial principles. Once pension payments have begun, the pension fund assumes the statutory pension adjustments provided it has the sufficient means to do so. In the last few years, the pension adjustments could not be assumed by the pension fund and had to be funded by the employers. For commitments made as of 1 December 2007, the employees and employer made a fixed, income-based contribution. There is no obligation on the part of the employer to adjust current pension benefits. Surpluses are used to increase the pension benefits. Although the existing obligations were fully covered by assets in accordance with German accounting standards for pension funds, the additional capital requirements have not been satisfied. There is a plan approved by regulatory authorities in place to remedy the contravention of requirements. Deficits, for example due to the pension fund earning an insufficient return on assets, may result in the CeramTec Holding Group having to make additional payments. The proportion of members whose membership is based on an existing or former work contract with CeramTec GmbH, CeramTec Service GmbH or Emil Müller GmbH of the total number of pension fund members amounts to around 26 % for active employees, around 11 % for non-contributory employees and around 4 % for pensioners.

The pension fund Hoechst-Gruppe VVaG is funded with income-based contributions by entitled employees as well as variable employer contributions. The employers' contribution must, together with the employees' member contributions and pension fund surpluses, sufficiently fund the agreed payments according to actuarial principles. Once pension payments have begun, the pension fund assumes the statutory pension adjustments provided it has the sufficient means to do so. The proportion of members whose membership is based on an existing or former work contract with the CeramTec Holding Group for active employees, non-contributory employees and pensioners ranges between around 0.1 % and 0.15 % in each case.

As of 1 December 2014, company pension schemes underwent some realignment, and all employees whose membership was based on an existing contract with the pension fund Dynamit Nobel VVaG were enrolled into Höchster Pensionskasse VVaG. Since 1 January 2015, contributions have not been paid anymore to the pension fund Dynamit Nobel VVaG, and the employees have become extraordinary members. All new hires become members of Höchster Pensionskasse VVaG. The employees and employer make a fixed, income-based contribution to Höchster Pensionskasse VVaG. There is no obligation on the part of the employer to adjust current pension benefits. Surpluses are used to increase the pension benefits. CeramTec GmbH has committed itself to directly providing benefits as compensation for the realignment which involved enrolling the employees into another pension fund, and might be to their disadvantage.

The contributions made to the pension fund amounted to EUR 2,514k in the fiscal year (previous year: EUR 2,101k). The expenses are recorded in cost of sales, selling costs, research and development as well as general administrative costs. Contributions of EUR 1,225k are expected to be made in 2017.

Expenses for additional defined contribution plans amount to EUR 10,288k (previous year: EUR 10,710k).

4.11 Other provisions and provision for taxes

Provisions developed as follows in the fiscal year:

	Balance as of 31 December 2015	Addi- tions	Utiliza- tion	Rever- sal	Unwind- ing of the discount	Exchange difference	Balance as of 31 December 2016
	EUR k	EUR k	EUR k	EUR k	EUR k	EUR k	EUR k
Provisions for employee bonuses	9,020	9,226	7,742	881	0	-32	9,591
Provisions for warranties	2,528	793	111	305	0	-6	2,899
Provisions for environmental risks	499	0	43	43	3	6	421
Provisions for long- service awards	1,079	4,017	50	0	0	0	5,047
Provision for solvency requirements	0	5,266	0	0	0	0	5,266
Provisions for litigation risks	1,662	1,583	932	106	0	3	2,209
Provisions for taxes	2,364	2,787	2,364	0	0	4	2,790
Other provisions	1,946	495	656	156	3	-5	1,627
	19,098	24,167	11,897	1,491	6	-31	29,851

Provisions for environmental risks relate to the elimination of residual pollution, renovation measures and water conservation practices. Estimations and, where possible, external expert opinions were used to measure the amount of the provisions.

Provisions for service anniversary obligations were calculated because in year 2016 new arrangements were agreed with the Company's works council.

A provision was recognized for a solvency plan for the closed pension fund Höchster Pensionskasse VVaG which has been approved by the German Federal Financial Supervisory Authority (Bafin).

The provision for taxes includes anticipated income tax payments for past assessment periods.

Other provisions primarily comprise provisions for severance pay, legal and consulting fees as well as provisions for other contingent liabilities.

The maturities of the provisions were as follows:

	31 December 2016 EUR k	31 December 2015 EUR k
Current provisions	19,215	15,445
Non-current provisions	10,636	3,653
Total	<u>29,851</u>	<u>19,098</u>

The cash outflow of provisions is expected to be 64 % within one year and 36 % between more than one and 15 years.

4.12 Financial liabilities to affiliates

Financial liabilities to affiliates comprise a loan payable to Faenza Luxembourg S.à.r.l, Luxembourg, of EUR of 154,423k (31 December 2015: EUR 144,574k), and the following table breaks down the non-current and current portions of the loan by their maturity:

	31 December 2016 EUR k	31 December 2015 EUR k
Non-current financial liabilities		
Loan payable	98,021	140,630
Accrued interest	0	3,944
	<u>98,021</u>	<u>144,574</u>
Current financial liabilities		
Loan payable	52,830	0
Accrued interest	3,572	0
	<u>56,402</u>	<u>0</u>
Total	<u>154,423</u>	<u>144,574</u>

On 4 January 2017, the portion reported as a non-current liability was paid.

The loan increases every year as of 29 August by the amount of incurred expenses for interest which is unpaid.

4.13 Financial liabilities to third parties

The financial liabilities to third parties are broken down as follows:

	31 December 2016 EUR k	31 December 2015 EUR k
<i>Non-current financial liabilities</i>		
Liabilities to banks	618,791	647,027
Liabilities from the bond	299,214	297,961
Derivative financial instruments	7,490	10,122
Finance lease liabilities	1,404	1,528
Purchase price for technology	105	218
Total	927,004	956,856
<i>Current financial liabilities</i>		
Liabilities to banks	46,016	37,202
Liabilities from the bond	9,489	9,489
Derivative financial instruments	3,540	4,437
Discounts and bonuses	1,855	1,861
Finance lease liabilities	26	504
Other current financial liabilities	1,603	1,536
Total	62,529	55,029

Liabilities to banks nominally amount to EUR 291,300k from a tranche in EUR and EUR 381,511k from a tranche in USD. These loans have variable interest rates and mature on 30 August 2020. Transaction costs associated with the loan of EUR 19,733k are spread over the term of the loan using the effective interest method. The tranche in USD is secured by currency swaps of EUR 226,900k concluded against foreign currency risks. This hedging relationship is recognized as a cash flow hedge.

The bond has a fixed interest rate and a nominal volume of EUR 306,700k. This bond matures on 15 August 2021. The CeramTec Holding Group has a termination option for this bond, which is recognized as a separate financial asset (note 4.3). Associated transaction costs of EUR 13,120k are spread over the term of the bond using the effective interest method. Further information on the loans, the bond and derivatives can be found in note 4.16.

Payment obligations from finance leases break down as follows over future years:

	Total	up to 1 year	1 to 5 years	more than 5 years
Present value of minimum lease payments	1,430	26	240	1,164
Interest effect	986	101	363	522
Minimum lease payments	<u>2,416</u>	<u>127</u>	<u>603</u>	<u>1,686</u>

Lease payments of EUR 26k, which are due in 2017, are recognized under current financial liabilities.

Reference is made to note 4.2 as regards the items of property, plant and equipment recognized under finance leases.

All leases include contractually agreed installments. There are no sub-lease arrangements. CeramTec Suzhou has a renewal option for real estate leases.

4.14 Other liabilities

Other liabilities break down as follows:

	31 December 2016 EUR k	31 December 2015 EUR k
Other current liabilities		
Wages and salaries including taxes	6,261	6,433
Real estate transfer tax	4,151	4,136
Other current liabilities	3,046	3,289
Total	<u>13,458</u>	<u>13,858</u>

Other current liabilities are mainly attributable to liabilities to employees, liabilities from social security contributions, liabilities to pension funds as well as deferred income.

4.15 Rental and lease obligations

Operating lease commitments mainly relate to land and buildings as well as technical equipment and machinery.

The corresponding payment obligations break down as follows over future fiscal years:

	31 December 2016 EUR k	31 December 2015 EUR k
up to 1 year	1,689	2,001
1 to 5 years	933	1,533
Total	2,622	3,534

In the fiscal year, expenses from rental and lease agreements amounted to EUR 3,185k (previous year: EUR 3,035k).

4.16 Financial instruments

The following table shows the carrying amounts and fair values of the financial assets and financial liabilities reported in the consolidated financial statements, sorted by class and measurement category in accordance with IAS 39.

	Measurement category of IAS 39 ¹	31 December 2016	
		Carrying amount EUR k	Fair value EUR k
Financial assets			
Cash and cash equivalents	LaR	124,585	124,585
Trade receivables	LaR	53,553	53,553
Other financial assets	LaR	296	296
Separated termination rights – HfT	FVtPL	24,459	24,459
Currency swaps in effective hedges	Hedge	60,119	60,119
Total		263,012	263,012
Financial liabilities			
Bond liabilities	FLAC	308,702	325,746
Liabilities to banks	FLAC	664,807	672,864
Trade payables	FLAC	22,376	22,376
Finance lease liabilities	FLAC	1,430	1,430
Trade payables owed to affiliates	FLAC	205	205
Other financial liabilities	FLAC	3,564	3,563
Liabilities to affiliates	FLAC	154,423	157,377
Separated interest rate floors – HfT	FVtPL	10,275	10,275
Interest rate cap – HfT	FVtPL	755	755
Total		1,166,536	1,194,591

¹ HfT: held for trading; LaR: loans and receivables; FVtPL: measured at fair value through profit or loss; FLAC: financial liabilities measured at amortized cost; hedge: hedge accounting

	31 December 2015		
	Measurement category of IAS 39 ¹	Carrying amount EUR k	Fair value EUR k
Financial assets			
Cash and cash equivalents	LaR	86,476	86,476
Trade receivables	LaR	53,178	53,178
Receivables from affiliates	LaR	1,022	1,022
Other financial assets	LaR	191	191
Separated termination rights – HfT	FVtPL	8,946	8,946
Currency swaps in effective hedges	Hedge	55,822	55,822
Total		205,635	205,635
Financial liabilities			
Bond liabilities	FLAC	307,449	327,556
Liabilities to banks	FLAC	684,229	695,440
Trade payables	FLAC	24,354	24,354
Finance lease liabilities	FLAC	2,032	2,032
Other financial liabilities	FLAC	3,615	3,613
Liabilities to affiliates	FLAC	144,574	150,056
Separated interest rate floors – HfT	FVtPL	13,419	13,419
Interest rate cap – HfT	FVtPL	1,141	1,141
Total		1,180,813	1,217,611

¹ HfT: held for trading; LaR: loans and receivables; FVtPL: measured at fair value through profit or loss; FLAC: financial liabilities measured at amortized cost; hedge: hedge accounting

If the fair value is not available in the form of a market price, it is calculated based on different valuation parameters. Depending on the availability of observable parameters and the significance of these parameters when calculating the fair value, the fair value is allocated to level 1, 2 or 3 of the fair value hierarchy. The allocation is based on the following factors:

- **Level 1:** Quoted (unadjusted) prices in markets for identical assets or liabilities that the entity can access at the measurement date
- **Level 2:** Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly
- **Level 3:** Non-observable measurement parameters for the asset or liability

The following table shows the fair value hierarchy for derivative financial instruments that are recognized at fair value in the consolidated financial statements:

	31 December 2016		
	Level 1 EUR k	Level 2 EUR k	Level 3 EUR k
Financial assets			
Separated termination rights – HfT	0	24,459	0
Currency swaps in effective hedges	0	60,119	0
Financial liabilities			
Separated interest rate floors – HfT	0	10,275	0
Interest rate caps – HfT	0	755	0

	31 December 2015		
	Level 1 EUR k	Level 2 EUR k	Level 3 EUR k
Financial assets			
Separated termination rights – HfT	0	8,946	0
Currency swaps in effective hedges	0	55,822	0
Financial liabilities			
Separated interest rate floors – HfT	0	13,419	0
Currency swaps in effective hedges	0	1,141	0

The following table shows the fair value hierarchy for the financial instruments that are not recognized at fair value in the consolidated financial statements; however, their fair value is provided in the notes to the financial statements. The Group does not disclose the fair value of financial instruments when the carrying amount is a reasonable approximation of fair value, such as short-term trade receivables and payables.

	31 December 2016		
	Level 1 EUR k	Level 2 EUR k	Level 3 EUR k
Financial liabilities			
Bond liabilities	325,746	0	0
Liabilities to banks	0	672,864	0
Finance lease liabilities	0	1,430	0
Liabilities to affiliates	0	157,377	0

31 December 2015

	Level 1 EUR k	Level 2 EUR k	Level 3 EUR k
Financial liabilities			
Bond liabilities	327,556	0	0
Liabilities to banks	0	695,440	0
Finance lease liabilities	0	2,032	0
Liabilities to affiliates	0	150,056	0

The fair value of the publicly listed bond corresponds to the nominal value multiplied by the market value at the reporting date. Accordingly, the fair value measurement is allocated to level 1 of the fair value hierarchy.

Liabilities to banks are subject to interest based on the interest rates observable on the market, such as EURIBOR or LIBOR, on the basis of which the fair value is calculated. Accordingly, these are allocated to level 2 of the fair value hierarchy.

The fair values of the separated derivatives are measured using the Black-Scholes/Hull-White valuation model, which considers both the observable yield curves and the fluctuation (volatility) of the currencies concerned. All key input parameters were directly or indirectly derived from observable market data. The fair value measurement is therefore allocated to level 2 of the fair value hierarchy.

Currency swaps are measured on the basis of a discounted cash flow method, which takes into account the observable mean closing rates, yield curves and currency spreads between currencies. All currency swaps had a positive market value as of the end of the reporting period. All key input parameters were directly or indirectly derived from observable market data. The fair value measurement of the currency swaps is therefore allocated to level 2 of the fair value hierarchy.

The fair value of the interest rate cap is measured using the Black-Scholes/Hull-White valuation model, which considers both the observable yield curves and the fluctuation (volatility) of the currencies concerned. All key input parameters were directly or indirectly derived from observable market data. The fair value measurement is therefore allocated to level 2 of the fair value hierarchy.

The fair value of all other financial instruments is calculated using a discounted cash flow method as well as by taking into account measurement parameters that can be directly or indirectly observed on the market. Accordingly, these financial instruments were allocated to level 2 of the fair value hierarchy.

For assets and liabilities that are recognized at fair value in the consolidated financial statements on a recurring basis, the CeramTec Holding Group assesses whether a transfer between the levels of the fair value hierarchy took place as of the end of each reporting period (based on the lowest level that is significant to measurement as a whole). There were no transfers between level 1 and 2 in the past reporting period.

Net gains and losses as well as total interest income and expenses

The following table presents the net gains and losses from financial assets and liabilities in accordance with IAS 39.

	31 December 2016			
	Change in fair value	Currency translation	Impairment loss	Total
	EUR k	EUR k	EUR k	EUR k
Loans and receivables (LaR)	0	-258	-60	-318
Cash and cash equivalents	0	260		260
Separated termination rights/ interest rate floors – HfT (FVtPL)	18,636	0	0	18,636
Financial liabilities at amortized cost (FLAC)	0	-2,115	0	-2,115
Intercompany loans	0	-180	0	-180
Total	18,636	-2,293	-60	16,283

	31 December 2015			
	Change in fair value	Currency translation	Impairment loss	Total
	EUR k	EUR k	EUR k	EUR k
Loans and receivables (LaR)	0	-427	-174	-601
Cash and cash equivalents	0	2,416	0	2,416
Separated termination rights/ interest rate floors – HfT (FVtPL)	5,273	0	0	5,273
Financial liabilities at amortized cost (FLAC)	0	-7,167	0	-7,167
Intercompany loans	0	234	0	234
Total	5,273	-4,944	-174	155

Net gains from the changes in fair value of embedded derivatives are primarily due to changes in market interest rates.

The following table shows the total interest income and expenses from financial assets and liabilities that are measured at amortized cost using the effective interest method.

	31 December 2016 EUR k	31 December 2015 EUR k
Total interest expense	68,981	72,674
Total interest income	96	100

Furthermore, finance charges of EUR 132k, which are not part of the effective interest method, were recognized in profit or loss during the reporting period.

Derivative financial instruments and hedge accounting

The following table shows the fair value and nominal value of derivative financial instruments as of 31 December 2016 and 31 December 2015:

	31 December 2016	
	Nominal value EUR k	Fair value EUR k
<i>Derivatives with a positive fair value</i>		
Separated termination rights – HfT	306,700	24,459
Currency swaps in effective hedges	226,900	60,119
<i>Derivatives with a negative fair value</i>		
Separated interest rate floor – HfT	672,864	-10,275
Interest rate cap – HfT	364,720	-755
Total	1,571,184	73,548
	31 December 2015	
	Nominal value EUR k	Fair value EUR k
<i>Derivatives with a positive fair value</i>		
Separated termination rights – HfT	306,700	8,946
Currency swaps in effective hedges	249,700	55,822
<i>Derivatives with a negative fair value</i>		
Separated interest rate floor – HfT	695,440	-13,419
Interest rate cap – HfT	403,440	-1,141
Total	1,655,280	50,208

Embedded derivatives

As described in note 4.13, the CeramTec Holding Group took out a syndicated loan with several USD and EUR tranches with different banks in August 2013. The loans include embedded interest rate floors, which obliges the CeramTec Holding Group to pay a minimum interest rate that exceeds the variable interest rate. Furthermore, the bond issued in August 2013 contains various agreements that entitle the CeramTec Holding Group to prematurely repay the bond. Both the interest rate floors and termination rights were separated from the host contract in accordance with the provisions of IAS 39 and recognized as stand-alone derivatives at fair value through profit or loss.

Cash flow hedges

The currency swaps were designated as hedging instruments in cash flow hedges in order to hedge a portion of the foreign currency risk resulting from the loans in USD. The ongoing interest and principal repayments from the loans and the currency swaps are made at the same time each quarter and will have an impact on profit or loss until the swaps mature in 2018. There were no ineffective cash flow hedges recognized in the reporting period.

The following table shows the amount for the reporting period recognized in other comprehensive income and reclassified from there to profit or loss:

	2016 EUR k	2015 EUR k
Currency swaps in effective hedges		
Net gains/losses recognized in other comprehensive income	4,297	31,221
Reclassification from other comprehensive income to profit or loss	-4,060	-28,576
Total other comprehensive income at the end of the period	237	2,645

The amounts reclassified from other comprehensive income to profit or loss were recognized in the financial result, so as to offset the effects from foreign currency translation of the secured portion of the loans in USD.

5 Additional notes to the consolidated statement of cash flows

In the consolidated statement of cash flows, cash flow from operating activities is determined using the indirect method, while cash flow from investing and financing activities is determined using the direct method. The cash and cash equivalents presented in the statement of cash flows correspond to the item of the statement of financial position and comprise cash in hand, bank balances and cash investments with an original term of up to three months. There are no restrictions on disposal.

In the previous year, the cash flow from investing activities included the purchase price payment of EUR 10,934k for the acquisition of the shares in DAI Ceramics, Inc., Willoughby/USA. Cash and cash equivalents of EUR 5k were taken over.

Other non-cash income and expenses primarily contain changes in the market value of financial instruments and accrued interest.

During the fiscal year, the Group paid cash of EUR 1,142k to invest in items of property, plant and equipment added to property, plant and equipment in the previous period already.

Of subsidies of EUR 212k which were recorded in previous years and resulted in a decrease in acquisition cost, subsidies of EUR 139k affected the consolidated group's cash account in the fiscal year. Subsidies of EUR 73k were not utilized.

6 Other notes

6.1 Management of financial risks

The CeramTec Holding Group is exposed to credit risks and various market risks. The credit risk is mainly due to receivables from customers. Market risks are primarily attributable to the risk of changes in variable interest rates as well as exchange rate risks. Furthermore, the CeramTec Holding Group is exposed to liquidity risks, which mainly result from the loans in EUR and USD taken out in August 2013 as well as the bond also issued in August 2013.

The CeramTec Holding Group operates on the basis of an appropriate framework to manage financial risks, which is an integral part of ongoing business operations and financing activities. Taking these risk management objectives into consideration, risks are identified, assessed and managed on an ongoing basis. The CeramTec Holding Group contracts on a case-by-case basis derivative financial instruments to hedge certain financial risks. By contrast, it is not permitted to enter into derivative financial instruments for speculative purposes.

Market risks

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risks comprise in particular risks arising from exchange rate and interest rate fluctuations and other price risks, such as share price risks and commodity price risks.

Foreign currency risk

Foreign currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. In connection with the loans in USD, the CeramTec Holding Group is in particular exposed to foreign currency risks from changes in the USD/EUR exchange rate.

The CeramTec Holding Group has secured 81.38 % of the nominal volume of the loans in USD against risks from fluctuations in the USD/EUR exchange rate by entering into USD/EUR currency swaps (further information on hedging cash flow risks can be found in note 4.16).

The following sensitivity analysis in terms of the foreign currency risk was prepared taking into account the hedges in place on 31 December 2016 and on the basis of the assumption that the portion of financial instruments in foreign currency will remain constant. The table shows the effects on the net income for the period as well as group equity taking into account a hypothetical change of +/- 10 % to the closing rate and forward rate as of the reporting date for the CeramTec group companies' main foreign currency items.

31 December 2016

	Change in the spot rate %	Change in the for- ward rate %	USD	GBP	CZK	PLN	CNY	Total
Earnings effect before tax in EUR k	+10 %		5,031	-142	30	-1,824	-524	2,571
	-10 %		-6,149	174	-36	2,229	1,179	-2,603
Effect on equity in EUR k		+10 %	-1,902	0	0	0	0	-1,902
		-10 %	2,769	0	0	0	0	2,769

The effects on the net income for the period are attributable to the hypothetical change in the carrying amount of non-derivative assets and liabilities in the respective foreign currency. The effect on group equity stems from the hypothetical change in the market value of the USD/EUR currency swaps, which are recognized in other comprehensive income as a result of the designation as a hedging instrument.

Interest rate risk

Interest rate risk is the risk that the fair value of fixed-interest rate financial instruments or the future cash flows of variable-interest rate financial instruments will fluctuate because of changes in market interest rates.

The variable-interest rate loans in USD and EUR expose the CeramTec Holding Group in particular to a cash flow risk from the change in the EURIBOR and LIBOR interest rates. By comparison, changes in variable interest rates relating to the fixed-interest rate bond lead to a change in fair value. However, this risk does not impact the net income for the period or group equity, as the bond is carried at amortized cost and changes in fair value are not recognized.

In 2014, a CeramTec group company entered into an agreement governing an interest rate cap of EUR 441,040k linked to 3-month EURIBOR. The interest rate cap limits the maximum variable interest rate to 2 %.

The following table shows the effects on the interest result assuming a hypothetical change of +/- 100 basis points to the variable USD and EUR interest rates.

	31 December 2016	
	Increase/decrease in basis points	Effect on interest expense EUR k
EUR	+100	0
	-100	0
USD	+100	380
	-100	0

A decline in the interest rate has no effect on the interest expense as a result of the interest rate floor of 1 % agreed in the syndicated loan agreement. A rise of 100 basis points in EURO has no effect as a result of the negative EUR interest rate and interest rate floor of 1 %.

Credit risk

Credit risk is the risk that a counterparty will not meet its obligations from financial instruments, leading to a financial loss for the creditor. At the CeramTec Holding Group, the credit risk is primarily due to trade receivables, cash and cash equivalents and other receivables.

Trade receivables are attributable to numerous customers in various sectors and regions. Default risks in customer receivables are locally monitored, assessed and limited by using credit insurance. After taking credit insurance into account, the maximum default risk on trade receivables comes to around 49 % of the carrying amount.

Cash and cash equivalents mainly comprise bank balances and cash in hand. In connection with the investment of cash and cash equivalents, the CeramTec group companies are exposed to losses from credit risks if counterparties do not meet their obligations. The resulting risk position is managed by diversifying their counterparties. For example, cash and cash equivalents are only invested at banks with excellent credit ratings. There are no cash and cash equivalents past due or impaired as of the reporting date. The maximum credit risk for cash and cash equivalents corresponds to the carrying amount.

The credit risk position from other financial assets corresponds to the carrying amount of these instruments. The CeramTec Holding Group considers this credit risk to be immaterial as of the reporting date.

The termination option separated from the bond is not exposed to any credit risk as of the reporting date, because the positive market value is based solely on a potential premature repayment of the bond and an associated more favorable opportunity to refinance for the CeramTec Holding Group; there is no actual cash receivable from the banks.

Liquidity risk

Liquidity risk is the risk that the CeramTec group companies will not be able to fulfill their financial obligations when they fall due. The objective of the management of the CeramTec Holding Group is to minimize the liquidity risk as far as possible by ensuring sufficient financing and credit lines from banks. In light of this, the CeramTec group companies had an undrawn and confirmed credit line of EUR 100,000k as of the reporting date. Furthermore, the CeramTec group companies had cash and cash equivalents of EUR 124,585k of which EUR 56,402k was used after the reporting date to make early debt service payments on a shareholder loan (see note 4.12).

The table below shows the contractually agreed undiscounted cash flows for the financial liabilities and derivative financial instruments as of the reporting date. The following cash flows were taken into account:

- Undiscounted, contractually agreed interest and principal payments from the loans in USD and EUR, including payments that are attributable to the separated interest floor. Cash flows in USD were translated into EUR based on the USD/EUR forward rate applicable as of the reporting date. Premature, voluntary special payments or repayments have not been taken into account.
- Undiscounted, contractually agreed interest and principal payments for the bond. Premature, voluntary special payments or repayments have not been taken into account.
- Undiscounted, contractually agreed payments for the interest rate cap.

	Carrying amount EUR k	31 December 2016					
		2017 EUR k	2018 EUR k	2019 EUR k	2020 EUR k	2021 EUR k	> 2021 EUR k
Trade payables	22,376	22,376	0	0	0	0	0
Trade payables owed to affiliates	205	205	0	0	0	0	0
Liabilities to banks	664,807	28,373	29,322	27,416	668,157	0	0
Bond liabilities	308,702	25,303	25,303	25,303	25,303	332,003	0
Liabilities to affiliates	154,423	56,538	0	0	0	0	166,255
Finance lease liabilities	1,430	127	150	150	150	150	1,686
Other financial liabilities	3,564	3,564	0	0	0	0	0

Derivatives with a negative fair value

Interest rate caps	755	448	336	0	0	0	0
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	Carrying amount TEUR	31 December 2015					
		2016	2017	2018	2019	2020	> 2020
		TEUR	TEUR	TEUR	TEUR	TEUR	TEUR
Trade payables	24,354	24,354	0	0	0	0	0
Liabilities to banks	684,229	31,404	30,913	31,023	31,646	687,451	0
Bond liabilities	307,449	25,303	25,303	25,303	25,303	25,303	332,003
Liabilities to affiliates	144,574	0	0	0	0	0	262,452
Finance lease liabilities	2,032	633	180	155	155	158	1,903
Other financial liabilities	3,615	3,320	109	276	0	0	0
Derivatives with a negative fair value							
Interest rate caps	1,141	448	448	336	0	0	0

Offsetting financial assets against financial liabilities

The USD/EUR currency swaps were entered into on the basis of ISDA Master Agreements, which include conditional claims to offset financial assets and financial liabilities. These offsetting rights are only legally effective if future events (e.g. insolvency, payment arrears) should occur. As the currency swaps only had positive market values as of the reporting date, derivative assets were not matched with any corresponding liabilities that would have enabled a potential offsetting.

Collateral

In connection with the syndicated loan, the assets of the German and American companies were provided as collateral to the extent that the syndicated loan is drawn. CeramTec Service GmbH, CeramTec Acquisition Corporation and CeramTec GmbH are the borrowers of the syndicated loan. In the USA, shares in CeramTec Acquisition Corporation and in CeramTec North America Corporation, all additional assets of CeramTec Acquisition and CeramTec North America Corporation as well as CeramTec GmbH's intellectual property registered in the USA were provided as collateral. In Germany, shares in CeramTec Service GmbH, CeramTec GmbH, CeramTec-ETEC GmbH, Cerasiv GmbH Innovatives Keramik-Engineering and Emil Müller GmbH, all intercompany receivables and bank accounts of CeramTec Group GmbH and CeramTec Service GmbH, all intercompany receivables, insurance receivables and trade receivables as well as bank accounts of CeramTec GmbH, CeramTec-ETEC GmbH, Emil Müller GmbH and Cerasiv GmbH Innovatives Keramik-Engineering were provided as collateral. Furthermore, the intellectual property and land of CeramTec GmbH, CeramTec-ETEC GmbH, Emil Müller GmbH and Cerasiv GmbH Innovatives Keramik-Engineering were provided as collateral for the syndicated loan, or encumbered. The land and building of CeramTec UK Ltd. with a carrying amount of EUR 265k was pledged as collateral for the obligations of the pension plan which was closed in the meantime.

Risk from compliance with financial covenants

Compliance with a financial covenant was also agreed in connection with the syndicated loan obtained. This must be done by the CeramTec Holding Group if the revolving credit line for EUR 100m is drawn by an amount set in the loan agreement.

Capital management

The objective of capital management in the consolidated group is securing liquidity to make investments that increase the value of the organization. The focus is therefore on optimizing cash flow from operating activities as well as repaying liabilities on schedule. Recognized equity amounted to EUR 269,427k (31 December 2015: EUR 284,430k). Liabilities of EUR 1,468,514k (31 December 2015: EUR 1,467,186k) were recognized as of the reporting date. The equity ratio stands at 15.50 % (31 December 2015: 16.24 %).

6.2 Contingent liabilities

The group companies are involved as parties in a number of lawsuits. These proceedings are linked to ordinary business activities and mainly relate to commercial, product liability and environmental processes. The group companies accrue for such obligations if it is probable that an obligation has arisen, and the expenditure required to settle the obligation is reliably measurable. Such obligations are disclosed in the notes to the financial statements if it is not unlikely that settlement can result in an outflow of resources.

6.3 Related party disclosures

Key management personnel

Key management personnel are people who are directly or indirectly responsible for the planning, directing and controlling the activities of the CeramTec Holding Group. This comprises the management of CeramTec Holding and the supervisory board of CeramTec GmbH.

In the fiscal year, the **general managers** of CeramTec Holding were:

Dr. Ulf-D. Zimmermann (until 14 March 2016)

Chief Executive Officer / HR director

Henri Steinmetz (since 14 March 2016)

Chief Executive Officer / HR director

Dominique Janbon

Chief Financial Officer

Dr. Hadi Saleh

Chief Operating Officer

The members of management received total remuneration (fixed and variable amounts) in the form of short-term employee benefits amounting to EUR 2,250k (previous year: EUR 2,246k) in the fiscal year. The payments for post-employment benefits amount to EUR 206k (previous year: EUR 260k). This amount comprises the service cost for pension obligations and contributions to defined contribution plans. In the fiscal year, former general managers were also granted with termination benefits of EUR 971k (31 December 2015: EUR 370k). Additionally, pension obligations as of 31 December 2016 for general managers of EUR 460k (31 December 2015: EUR 2,907k) as well as EUR 3,153k (31 December 2015: EUR 2,635k) for former managers are existing.

As part of a management participation program (MPP), the general managers were offered the option to indirectly acquire shares in parent company Faenza Holding S.à.r.l. via Faenza MEP GmbH & Co. KG. These indirect shares were acquired at fair value, which is calculated based on the purchase price for the acquisition of the high-performance ceramics division by the ultimate parent company. The shares primarily enable them to participate in earnings if certain events occur. The Company has no obligations from the management participation program. The MPP is therefore accounted for as equity-settled share-based payments in these consolidated financial statements in accordance with IFRS 2. As the shares were acquired at fair value, no benefits were granted to the general managers. This means that no personnel expenses are incurred if or before the defined events occur.

CeramTec GmbH has a **supervisory board** in accordance with the articles of incorporation.

The total remuneration of the supervisory board in the fiscal year 2016 amounted to EUR 116k (previous year: EUR 76k). In addition, in the fiscal year consultancy fees of EUR 44k (previous year: EUR 114k) were paid to members of the supervisory board.

Transactions with related parties

Entities and natural persons are deemed to be related parties when they exercise control over the reporting company or over its subsidiaries or when they have a significant influence on the reporting company's financial and business policy. A loan of EUR 154,423k (31 December 2015: EUR 144,574k), including interest, with a fixed interest rate of 8.255 % p.a. has been obtained from CeramTec Holding's controlling shareholder, Faenza Luxembourg S.à.r.l., Luxembourg. Interest expenses of EUR 11,894k (previous year: EUR 11,024k) were incurred in the fiscal year 2016. Unpaid interest is added annually to the Company's loan balance as of 29 August. Interest of EUR 1,399k was paid with effect from February 2016, and further interest of EUR 646k was paid with effect from September 2016. The loan is not secured.

In the fiscal year, Faenza Luxembourg S.à.r.l. charged the CeramTec Holding Group EUR 545k (previous year: EUR 541k) for consultancy services and out-of-pocket expenses, resulting in liabilities to affiliates as of 31 December 2016 of EUR 205k (31 December 2015: receivables from affiliates of EUR 1,022k because Faenza Luxembourg S.à.r.l. was charged for incurred transaction costs).

6.4 Auditor's fees

Overall, CeramTec Holding's auditor's fees for the fiscal year break down as follows:

	2016 EUR k	2015 EUR k
Audit services	464	471
Audit-related services	108	725
Other professional services	34	69
Total	606	1,265

6.5 Subsequent events

On 4 January 2017, prorated debt service payments of EUR 56,538k were made to Faenza Luxembourg S.à.r.l., Luxembourg, on a shareholder loan which had been granted, and comprises a non-current liability of EUR 56,402k as of 31 December 2016 (see note 4.12) plus interest of EUR 136k which accrued in 2017.

On 21 February 2017, CeramTec UK Ltd., Colyton, UK, acquired assets, net of liabilities, of the UK electro-ceramics business, comprising two manufacturing sites, from Morgan Advanced Materials plc.

No further events occurred which must be reported.

7 Reconciliation to CeramTec Group GmbH

If the consolidated statement of comprehensive income of CeramTec Group had been prepared instead of the consolidated statement of comprehensive income of CeramTec Holding, which is presented in these financial statements, this would have resulted in the following changes for the fiscal year:

- Lower general administrative expenses of EUR 185k (previous year: EUR 296k)
- Lower interest expenses of EUR 11,891k (previous year: EUR 11,024k)
- Higher interest income of EUR 9,162k (previous year: EUR 3,019k)
- Higher tax expenses of EUR 35k (previous year: EUR 59k)
- Higher expenses for profit/loss transfers of EUR 137,385k (previous year: income of EUR 103,053k)

The total comprehensive income of CeramTec Group would therefore have been EUR 116,182k lower (previous year: EUR 117,333k higher) compared to the total comprehensive income recognized in these financial statements.

If the consolidated statement of financial position of CeramTec Group had been prepared instead of the consolidated statement of financial position of CeramTec Holding, which is presented in these financial statements, this would have resulted in the following changes as of 31 December 2016:

- Higher receivables from affiliates of EUR 19,272k (31 December 2015: EUR 144,764k)
- Lower cash of EUR 0k (31 December 2015: EUR 25k)
- Lower trade payables of EUR 53k (31 December 2015: EUR 298k)

- Lower financial liabilities to affiliates of EUR 154,423k (31 December 2015: EUR 144,574k)
- Higher tax payable of EUR 476k (31 December 2015: EUR 441k)

This would have resulted in a EUR 173,294k (31 December 2015: EUR 289,477k) higher level of group equity for the CeramTec Group compared to the group equity recognized in these financial statements.

There would have been no impact on the consolidated statement of cash flows if the consolidated statement of cash flows of CeramTec Group had been prepared instead of the consolidated statement of cash flows presented in these financial statements.

Plochingen, 15 March 2017

CeramTec Holding GmbH

The management

Henri Steinmetz

Dominique Janbon

Dr. Hadi Saleh