2020 ANNUAL REPORT

CeramTec
THE CERAMIC EXPERTS

KEY FIGURES

	2020	2019	2018
Total Revenue	**552.7** €	**620.4** €	**600.2** €
Revenue Medical Products	230.2 €	258.7 €	226.5 €
Revenue Industrial	322.5 €	361.7 €	373.7 €
EBITDA	**190.5** €	**222.7** €	**183.4** €
Management Adjusted EBITDA	213.1 €	244.3 €	226.3 €
Management Adjusted EBITDA margin (%)	38.6 %	39.4 %	37.7 %
Capital Expenditures (net)	36.7 €	43.6 €	33.3 €
Cash Conversion Ratio [1] (%)	82.8 %	82.1 %	85.3 %
Employees	3,420	3,525	3,589
Net Debt	**1,360.3** €	**1,379.5** €	**1,468.6** €
Leverage [2]	**6.4 x**	**5.6 x**	**6.5 x**

[1] Management Adjusted EBITDA minus Capital Expenditures (net), divided by Management Adjusted EBITDA
[2] Defined as Net Debt divided by Management Adjusted EBITDA

CeramTec is a leading global developer, manufacturer, and supplier of advanced ceramic products.

Our ceramic products are made from highly specialized materials and are characterized by their superior mechanical, electrical, thermal and biochemical properties.

Our operations are divided into two businesses: Medical Products and Industrial.

The Medical Products business focuses on BIOLOX® ceramic components for medical implants. Due to their biocompatibility, high wear resistance, manufacturing precision and quality, BIOLOX®-based implants have a positive effect on patients' lives and create real added value for healthcare systems.

The Industrial business develops and supplies a broad range of highly specialized, performance-critical components for a myriad of applications in the Automotive, Aeronautics/Defence, Machinery, Electronics, Medical equipment, Chemical and other industries.

Our success is based on market leadership in ceramic hip components and highly specialized industrial niches, our sustained technological edge underpinned by continuous advancements, long-standing customer relationships and our global commercial, operational and technical expertise.

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OWNERSHIP

BC Partners is a leading international private equity firm. Established in 1986, BC Partners has played an active role in developing the European buy-out market for over three decades. BC Partners executives operate as an integrated team through the firm's offices in Europe and North America, acquiring and developing businesses to create value in partnership with management. For more information, visit https://www.bcpartners.com

The Public Sector Pension Investment Board (PSP Investments) is one of Canada's largest pension investment managers. It manages a diversified global portfolio composed of investments in public financial markets, private equity, real estate, infrastructure, natural resources and private debt. Established in 1999, PSP Investments manages net contributions to the pension funds of the federal Public Service, the Canadian Forces, the Royal Canadian Mounted Police and the Reserve Force. Headquartered in Ottawa, PSP Investments has its principal business office in Montréal and offices in New York, London and Hong Kong. For more information, visit https://www.investpsp.com

The Ontario Teachers' Pension Plan (Ontario Teachers') is Canada's largest single-profession pension plan. It holds a diverse global portfolio of assets. Ontario Teachers' is an independent organization headquartered in Toronto. Its Asia-Pacific region office is located in Hong Kong and its Europe, Middle East & Africa region office is in London. The defined-benefit plan, which is fully funded, invests and administers the pensions of the province of Ontario's active and retired teachers. For more information, visit https://www.otpp.com

The Management Board*

Dr. Hadi Saleh
Chief Executive Officer

Richard Boulter
President Industrial

Eric Oellerer
Chief Financial Officer

The Supervisory Board**

Dr. Günter von Au
Chairman of the Supervisory Board

Roland Nosko [1]
District Manager of the Industrial Union for Mining, Chemicals and Energy (IG BCE), Nuremberg

Moritz Elfers
Principal at BC Partners in Hamburg

Jürgen Haas
Vice-Chairman of the CeramTec Works Council in Lauf and Chairman of the CeramTec Central Works Council

Gerd Hammerl
Vice Chairman IG BCE Bavaria

Thomas Heise
Global Sales Director Electronic Devices

Prof. Dr. Jürgen Huber
Honorary Professor at the TU Braunschweig and consultant

Axel Meyersiek***
Partner at BC Partners in Hamburg

Falco Pichler
Managing Director at BC Partners in Hamburg

Alexander Schätz
Chairman of the CeramTec Works Council in Lauf

Monika Träger
Chairwoman of the Works Council at the CeramTec site in Marktredwitz

* Management Board of CeramTec BondCo GmbH

** Supervisory Board of CeramTec GmbH. Various members of the Supervisory Board hold further mandates in other Boards.

*** Until December 31, 2020

(1) Deputy Chairman of the Supervisory Board

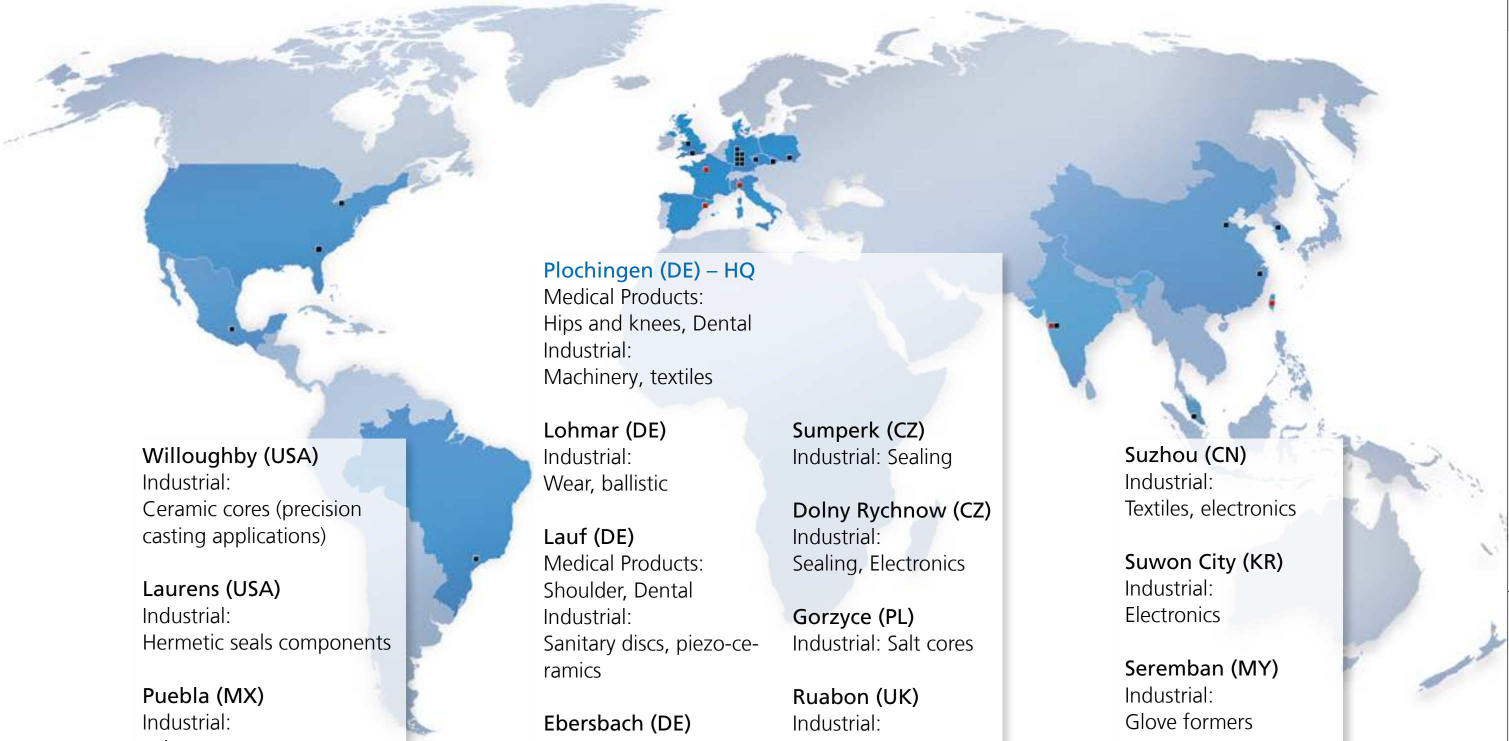
Growing Beyond Borders

CeramTec is one of the leading international technology providers with a global presence.
We are expanding into emerging markets and Asia.

AMERICAS
USA, Brazil, Mexico

EUROPE
Germany, France, UK, Italy, Poland, Spain, Czech Republic

ASIA
China, Korea, Malaysia, India, Taiwan



Willoughby (USA)
Industrial:
Ceramic cores (precision casting applications)

Laurens (USA)
Industrial:
Hermetic seals components

Puebla (MX)
Industrial:
Salt cores

Nova Odessa (BR)
Industrial:
Salt cores

Plochingen (DE) – HQ
Medical Products:
Hips and knees, Dental
Industrial:
Machinery, textiles

Lohmar (DE)
Industrial:
Wear, ballistic

Lauf (DE)
Medical Products:
Shoulder, Dental
Industrial:
Sanitary discs, piezo-ceramics

Ebersbach (DE)
Industrial:
Cutting materials and tools

Marktredwitz (DE)
Medical Products:
Hips
Industrial:
Electronics, Chemical Products

Wilhermsdorf (DE)
Industrial: Salt cores

Wittlich (DE)
Industrial:
Faucet cartridges

Sumperk (CZ)
Industrial: Sealing

Dolny Rychnow (CZ)
Industrial:
Sealing, Electronics

Gorzyce (PL)
Industrial: Salt cores

Ruabon (UK)
Industrial:
Piezo-ceramics

Southhampton (UK)
Industrial:
Piezo-ceramics

Suzhou (CN)
Industrial:
Textiles, electronics

Suwon City (KR)
Industrial:
Electronics

Seremban (MY)
Industrial:
Glove formers

Patiala (IN)
Industrial:
Salt cores

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MANAGEMENT REPORT

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

On March 8, 2018, a consortium led by funds advised by leading private equity firm BC Partners ("BC Partners") acquired the CeramTec Group. The Public Sector Pension Investment Board ("PSP Investments") and Ontario Teachers' Pension Plan ("Ontario Teachers'") are part of the consortium. As a result of the transaction, CeramTec AcquiCo GmbH ("CeramTec AcquiCo") acquired the shares in CeramTec Holding GmbH ("CeramTec Holding"). CeramTec AcquiCo GmbH is a 100% subsidiary of CeramTec BondCo GmbH ("CeramTec BondCo"), which is itself a 100% subsidiary of CeramTec TopCo. As a result of the acquisition, CeramTec TopCo indirectly obtained control of the operating Advanced Ceramics Business as from the acquisition date March 8, 2018. CeramTec TopCo is the ultimate parent and prepares the interim condensed consolidated financial statements of the CeramTec Group.

The purpose of this Operational and Financial Review is to show the development of the financial results of the operating Advanced Ceramics Business for the twelve-month period ended December 31, 2020 in comparison to the twelve-month period ended December 31, 2019. The financial data for both periods have been derived from the interim condensed consolidated financial statements.

The following discussion should be read in conjunction with the information contained in our interim condensed consolidated financial statements for the twelve-month period ended December 31, 2020 including the notes thereto. In the following, we discuss certain financial quantities on an adjusted basis before giving effect to depreciation and amortization, and certain extraordinary, non-recurring items.

The figures in this review are presented in Euro. The amounts are in millions of Euros (EUR m). All amounts are rounded using standard commercial principles. In some cases, adding single values to the total values may therefore lead to differences. Due to rounding differences, figures in tables and cross-references may differ slightly from the actual figures (units of currency, percentages, etc.).

Business Overview

We are a leading global developer, manufacturer and supplier of high performance ceramics ("HPC") solutions for various end markets including medical, automotive, industrial, consumer and electronics. Our HPC solutions are made of advanced ceramics, which are highly specialized materials with superior biological/chemical, mechanical, thermal, electric, magnetic or optical properties compared to competing products made from metal or polymers (plastics). We have been engaged in the HPC industry for over 100 years, with operational expertise and experience in creating innovative system solutions for longstanding customers at an industrial scale. We currently offer a wide range of HPC solutions including among others, hip joint prostheses components, ceramic dental implants, actuators in engine valves for fuel injection systems, electronic substrates for chip resistors and electrical vehicles, high speed cutting tools and piezo components critical for many different sensors. The versatility of HPC products and resulting wide range of applications provides us with a highly diversified end market and customer base. Our operations can be divided into two businesses: Medical Products and Industrial.

Medical Products

Our Medical Products business focuses on developing and manufacturing ceramic components for hip joint prostheses, such as ball heads and cup inserts used in total hip replacement ("THR") procedures. In 2020, it generated 41.6% of our revenue.

Ceramic materials are replacing traditional materials for hip joint prosthetic components such as metal which can trigger negative physical reactions, for example due to allergic reactions resulting from metal sensitivity. Our HPC medical solutions are biologically inert and have high wear resistance and excellent friction behaviour, making them one of the few materials that are durable and stable enough to withstand the corrosive effects of bodily fluids. More than 20 million of our BIOLOX® ceramic components have been implanted in patients globally to date. We estimate that nearly one in two hip joint implant systems sold worldwide includes at least one ceramic component. We believe that our BIOLOX® brand has come to symbolize high quality and innovation and is increasingly preferred by surgeons and other medical professionals. We anticipate that our HPC solutions will be used for various other joint replacements, such as more knees and shoulder implants in the future. Furthermore, in future, the superior characteristics of the ceramic materials will also drive the market for dental implants, a market in which we are increasingly active.

Industrial

Our Industrial business develops, manufactures and supplies a broad range of highly specialized, performance-critical HPC solutions for customers spanning a wide range of industries including automotive, defence, electronics, industrial machinery and medical equipment. In 2020, 58.4% of our revenue was generated by our Industrial business.

Our dedicated teams of scientists and engineers collaborate closely with customers to develop tailor-made solutions and production processes to fulfil distinct functionality and performance requirements. We believe that we are one of the few advanced ceramics manufacturers with a full range of HPC materials and manufacturing processes with a global reach. Our HPC solutions are often used in performance-critical components. For example, our cutting tools have a longer life and faster cutting speeds compared to non-HPC cutting tools, allowing our customers to save costs and reduce downtime. In automotive engineering, HPC products, including our piezo ceramic components, play a vital role in increasing safety, improving cost-effectiveness and enhancing comfort in vehicles. Our ceramic substrates are used for a variety of purposes in the electronics and telecommunications sector, including measurement and control technology and entertainment electronics. We believe that the specialized, mission-critical nature of our solutions, our long standing customer relationships and our highly diversified portfolio of solutions and customer base, reduce the exposure of our Industrial business to any single industry or product.

Key Factors Affecting Results of Operations and Financial Condition

Hip Replacement Market Growth and Ceramic Hip Implant Components Penetration

Our total revenues and operating profit are significantly influenced by the development of the market for hip replacements in general and the penetration rate for ceramic hip implants. The ceramic components we manufacture include ball heads, cup inserts and option heads (used for revisions). To date, more than 20 million of our BIOLOX® ceramics components have been implanted in patients globally. In 2020, we sold 1.6 million BIOLOX® hip implant components.

The total market for hip joints is estimated to be around 6bnUS$ out of which the addressable market for ball heads, inserts and revision ball heads is estimated to be around 1.9 bn US$. The total addressable market is expected to grow with the number of total hip replacement procedures, a key driver of demand for ceramic ball heads and inserts. Further, ceramic as a material is increasingly used in revisions and partial hip replacement. In developed markets such as Europe and the United States, growth in the artificial hip joint market is primarily driven by an aging population as well as by an increase in obesity rates. Both age and obesity are significant contributors to hip joint problems. Additionally, there are indications that the younger population, those who are less than 65 years old, are electing to have primary hip replacements earlier in life so that they can maintain and enjoy an active lifestyle. Such younger patients are taking advantage of improvements in technology leading to better wearability and increased life spans of hip implant prostheses.

Similarly, growth in artificial hip joints in emerging markets also stems from an aging population and, in some countries, increased obesity. However, in developing countries there are additional drivers of growth, such as the proliferation of osteoarthritis and osteonecrosis (reduced blood flow to bones), improved availability of medical care and prosthetic procedures coupled with increased household incomes and broader access to funded healthcare.

Our Position as Supplier of Choice for Ceramic Hip Implant Components

We observe unabated commitment by major orthopaedic implant manufacturers to our hip implant components. We have long lasting partnerships with them, with CeramTec continuing to supplement its product offerings with appropriate service offerings.

General Macroeconomic and Other Developments in our Key Geographical Target Markets

Our sales to our customers are mostly concentrated in Europe and specifically in Germany. However, although our customers are concentrated in Europe, many of them, especially medical and automotive customers, are export oriented, global companies. Consequently, we view our business as globally diversified. We believe that our business is more exposed to North America, Asia and other regions than indicated by the split of revenues by geography. We estimate that the underlying demand outside Europe drives approximately 40% of our revenue.

While our Medical Products are not particularly affected by macroeconomic developments in our geographic markets, revenue in our Industrial business is influenced by economic growth in our target markets, particularly in Europe.

Demand Cycles in Various End Markets Supplied by our Industrial Business

In addition to the overall GDP growth rate influencing the results of operations of our Industrial business, each of our industrial markets is also influenced by separate and distinct factors and has a different economic cycle. In particular, the automotive, electronics, textile and other industrial end markets we serve are cyclical and subject to technological changes. Demand for our products is also significantly affected by the business success of our OEM customers as well as end users that purchase products from those OEM customers. For example, overall economic conditions can affect new car sales, impacting our automotive customers and thereby also influencing demand for our ceramic components in automobiles and engines.

By revenue, the automotive market is the largest single end market for our Industrial business, followed by the electronics market, textile, construction and various other industrial niche markets. Particularly for the automotive end market, but also various other industrial end markets such as construction, the economic developments in Germany and Europe have a significant effect on our revenue, with Asian markets, especially China, gaining importance. For example, effects of government regulation and subsidies on new car sales have materially affected the automobile sector in the past, specifically in Germany and other European countries. In addition, we have in the past been affected by political and fiscal decisions, for example by decisions of the Chinese government that had an impact on the textile industry in China.

Development of New Products, Materials and Processing Technologies and Regulatory Know How

As a manufacturer of HPC products we believe that our continued emphasis on research and development is key to our future profitability and our reputation as a technology leader in HPC. To ensure the sustainability of our business, we continuously research and develop materials as well as manufacturing and coating processes for new products in established and in new markets. Our product development is mainly focused on delivering customer driven innovations and next generation solutions. We invest in the development of new materials and processes. In our Medical Products business we invest among others into new solutions for the hip market, the knee market and different ceramic implants for dental applications. Our Industrial business delivers numerous new products every year, recent examples being new generation substrates, sensors for various applications and piezo-based innovations for a number of end markets. We believe that such growth investments are crucial to continued success in our target markets.

We have a strong, centralized R&D infrastructure. In 2020, our R&D expenses were €20.6 million, equal to 3.7% of revenue. Our innovations play a fundamental role in our ability to maintain and grow our global market share in the different markets in which we operate. We expect that modification, innovation and new product design will continue to be a key driver of our success.

We have built up and continue to invest into a strong regulatory team with a deep understanding of all relevant regulatory requirements for medical implants in all key markets. Our understanding of these requirements and ability to support our customers in these matters is highly valued in all regions.

Expansion through Acquisitions and Growth Investment

We have in the past years engaged in M&A activity to strategically grow our business. In April 2017, we acquired the UK electro-ceramics business from Morgan Advanced Materials plc, which produces integrated piezo components. In addition to growth through strategic acquisitions, we continue to invest in our infrastructure and machinery in order to maintain and expand our production capabilities and to realize continuous productivity improvements. A further focus of our investment strategy are various digitalization initiatives.

Cost Effectiveness through Simplification of Industrial Business and Business Excellence Initiatives

In order to improve our earnings and cash flows, we implement measures to increase organizational cost effectiveness and drive productivity across all businesses. In our Industrial business, we continued with a comprehensive reorganization started in 2016, where we combined various independent reporting units into larger, more streamlined commercial units and consolidated our operations in Europe

We operate our company on a lean management, flat hierarchy philosophy and have not substantially increased the size of our administrative team for many years despite our growth in revenue. We have a centrally coordinated, structured program in place and that aims continuously to improve our product quality, productivity and manufacturing processes' efficiency, as well as to improve the cost effectiveness of research and development, sales, and administrative functions. In addition, we have implemented commercial excellence initiatives to improve customer focus, cross selling and commercial delivery, through implementation of a structured opportunity management process, including the implementation of customer relationship management system and the education of our sales force.

Price Development

With respect at our core medical products market, we maintain pricing that reflects our position as innovation leader with unrivalled clinical and quality track record, a close relationship with our customers and significant loyalty of medical professionals to our proven product solutions as well as our strong regulatory understanding of all relevant processes.

We are also among the strong players in many of the industrial niche markets that we target. Our main HPC competitors either target different markets or have a different geographical focus. Additionally, we are the sole supplier of certain specialized products in certain niche areas. However, specifically in the automotive and electronics market our customers regularly stipulate annual cost improvements.

Seasonality

Our business is moderately affected by seasonal volatility in order volumes. We register a slight slowdown of new orders in the summer months and in December, related mainly to procurement and supply chain management of our customers, mainly Medical OEMs. The fluctuations in revenue we experience over the course of a year are similar from year to year and are moderately low. Our revenue is usually strongest in the first quarter of a year and lowest in the fourth quarter.

Results of Operations

The following table sets forth amounts from our income statement along with the percentage change for the twelve- month period ended December 31, 2020 compared to the twelve-month period ended December 31, 2019. All figures are unaudited in EUR million, as reported.

	Twelve Months Ended December 31,		
	2020	**2019**	**Change**
	(in € million)	*(in € million)*	*(%)*
Revenue	552.7	620.4	-10.9
Cost of sales	334.9	356.2	-6.0
Gross profit	**217.8**	**264.1**	**-17.5**
Selling costs	87.3	95.2	-8.3
Research and development costs	20.6	23.3	-11.6
General administrative costs	24.5	27.1	-9.6
Other income and expenses (-), net	-139.0	-342.9	-59.5
Operating income	**-53.6**	**-224.5**	**-76.1**
Interest income and other finance income	6.8	2.1	+220.8
Interest expenses and other finance costs	99.5	100.4	-0.9
Financial result	-92.7	**-98.3**	-5.7
Profit/(Loss) before income tax	**-146.3**	**-322.8**	**-54.7**
Income tax expense	-2.8	-16.5	-82.7
Net profit/(loss) for the period	**-149.2**	**-339.3**	**-56.0**

Our management considers the results of operations on the adjusted basis, before giving effect to depreciation and amortization as well as certain extraordinary, non-recurring items, to be an important indicator of business performance. Management adjusted EBITDA, its main components and its reconciliation to Operating Income as reported is shown in the following table.

	Twelve Months Ended December 31,		
	2020	**2019**	**Change**
	(in € million)	*(in € million)*	*(%)*
Revenue	552.7	620.4	-10.9
Cost of sales*	273.0	293.5	-7.0
Gross profit*	**279.7**	**326.8**	**-14.4**
Selling costs*	35.4	43.2	-18.1
Research and development costs*	17.4	20.1	-13.7
General administrative costs*	18.1	18.5	-2.6
Other income and expenses (-), net*	4.2	-0.6	N/A
Management Adjusted EBITDA	**213.1**	**244.3**	**-12.8**
- Exceptional items	22.6	21.6	+4.4
EBITDA	**190.5**	**222.7**	**-14.4**
- Amortization, Depreciation and Impairment charges on non-current assets	244.2	447.2	-45.4
Operating Income	**-53.6**	**-224.5**	**-76.1**

* Excluding depreciation, amortization and exceptional items

The following table provides a breakdown of our exceptional items for the twelve months ended December 31, 2020, compared to the twelve months ended December 31, 2019.

	Twelve Months Ended December 31,	
	2020	**2019**
	(in € million)	*(in € million)*
Restructuring costs	5.9	7.6
Other non-recurring	10.4	7.3
Foreign exchange conversion effects	0.9	0.7
Additional contribution related to pensions	0.1	0.0
Acquisition costs	1.4	0.3
Transaction related costs	0.4	0.4
PPA on Inventories	0.8	0.0
Start-up losses	1.3	0.9
Discontinued operations	1.4	4.4
Total Exceptional Items	**22.6**	**21.6**

Restructuring costs in 2019 and 2020 mainly comprise severance payments for the reduction of staff at CeramTec GmbH and CeramTec-ETEC GmbH for restructuring initiatives undertaken mainly in our Industrial business, partly related staff and factory adjustment related to the Covid-19 crisis.

Other non-recurring costs in 2020 mainly are comprised of non-recurring consulting and litigation expenses, Covid-19 costs for measures to safeguard employees' health, additional IT spending to adjust to changed work environment, costs of plant shutdown following partly government enacted plant closures or closures related to customers closing their facilities as well as short-time working impact, while 2019 mainly comprises non-recurring consulting and litigation expenses.

Foreign exchange conversion effects reflect certain impacts related to currency conversions that are accounted for in our Operating income.

Additional contribution related to pensions represent the expenses relating to the pension plan at Pensionskasse Dynamit Nobel VVaG, which was closed at the end of 2014 but with a continuing contractual obligation to cover potential underfunding. On July 20, 2016, the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht) approved the solvency plan dated June 24, 2016 in favour of Pensionskasse Dynamit Nobel VVaG. The provision was based on the planned payments until 2021. Additional contribution for 2020 is based on annual projection by the German Federal Financial Supervisory Authority.

Acquisition costs in 2019 and 2020 represent acquisition-related consulting.

Transaction-related costs comprise certain impacts due to the CeramTec AcquiCo acquisition with effectiveness of March 8, 2018.

PPA on inventories comprises step-ups at transactions, in finished goods and work in progress inventories calculated based on customary asset valuation methodology.

Start-up losses reflect the ramp up cost of our knee and dental businesses in Medical.

Discontinued operations mainly comprise the exit in some Industrial applications.

Revenue

The following table provides a breakdown of our revenue for the twelve months ended December 31, 2020, compared to the twelve months ended December 31, 2019.

	Twelve Months Ended December 31,		
	2020	**2019**	**Change**
	(in € million)	*(in € million)*	*(%)*
Medical Products	230.2	258.7	-11.0
Industrial	322.5	361.7	-10.8
Total Revenue	**552.7**	**620.4**	**-10.9**

Total revenue for the twelve months ended December 31, 2020 was €552.7 million, a decrease of €67.7 million or 10.9%, as compared to €620.4 million for the twelve months ended December 31, 2019.

Revenue in our Medical Products business was €230.2 million for the twelve months ended December 31, 2020, a decrease of €18.5 million or 11.0%, as compared to €258.7 million for the twelve months ended December 31, 2019. Revenues were impacted by lower order income and order cancellations and postponements from customers in the context of a lower level of elective surgeries taking place due to Covid-19.

Revenue in our Industrial business was €322.5 million for the twelve months ended December 31, 2020, a decrease of €39.2 million or 10.8%, as compared to €361.7 million for the twelve months ended December 31, 2019. This decrease was mostly due to lower volumes across most products groups due to lower demand from customers and order cancellations following the Covid-19 outbreak as well as generally slowing markets for automotive and electronics components already before the Covid-19 outbreak. These impacts were partly compensated by good volume growth for piezo ceramics for sensors for different end markets, especially for medical equipment.

The following table provides a breakdown of our revenue for the twelve months ended December 31, 2020, compared to the twelve months ended December 31, 2019 by region. The split is mainly unchanged between the periods.

	Twelve Months Ended December 31,		
	2020	2019	Change
	(in € million)	*(in € million)*	*(%)*
Europe (excluding Germany)	233.7	270.3	-13.5
Germany	111.7	141.9	-21.3
North America	91.2	91.8	-0.7
Asia	105.4	100.4	5.0
Other regions	10.7	16.0	-33.1
Total Revenue	**552.7**	**620.4**	**-10.9**

Cost of Sales and Gross Profit

The following table shows a break-down of our cost of sales for the twelve-month periods ended December 31, 2019 and 2020, respectively. All figures are unaudited in EUR million as reported.

	Twelve Months Ended December 31,			
	2020		2019	
	(in € million)	*(% of sales)*	*(in € million)*	*(% of sales)*
Material and packaging costs	101.5	18.4	116.3	18.7
Personnel expenses	124.4	22.5	130.9	21.1
Amortization and Depreciation	55.8	10.1	55.9	9.0
Other cost of sales	53.2	9.6	53.2	8.6
Total cost of sales	**334.9**	**60.6**	**356.2**	**57.4**

Cost of sales was €334.9 million (60.6% of revenue) for the twelve months ended December 31, 2020, a decrease of €21.3 million or 6.0%, as compared to €356.2 million (57.4% of revenue) for the twelve months ended December 30, 2019. Excluding amortization and depreciation and non-recurring items such as additional contribution to a pension fund, consulting costs and severance payments, our adjusted cost of sales decreased by 7.0% from €293.5 million or 47.3% of revenue for the twelve months ended December 31, 2019 to €273.0 million or 49.4% of revenue for the twelve months ended December 31, 20.

Gross profit was €217.8 million for the twelve months ended December 31, 2020, a decrease of €46.3 million or 17.5%, as compared to €264.1 million for the twelve months ended December 31, 2019. Our Adjusted gross profit margin decreased to 50.6% for the twelve months ended December 31, 2020, from 52.7% for the twelve months ended December 31, 2019, suffering from a lower fixed cost absorption and a lower productivity due to various Covid-19 impacts.

Selling Costs

Selling costs were €87.3 million (15.8% of revenue) for the twelve months ended December 31, 2020, a decrease of €8.0 million or 8.3%, as compared to €95.2 million (15.4% of revenue) for the twelve months ended December 31, 2019.

Excluding amortization and depreciation and non-recurring items such as non-recurring litigation costs, additional contribution to a pension fund, consulting costs and severance payments, our adjusted selling costs decreased to €35.4 million or 6.4% of revenue for the twelve months ended December 31, 2020 from €43.2 million or 7.0% of revenue for the twelve months ended December 31, 2019.

Research and Development Costs

Research and development costs were €20.6 million (3.7% of revenue) for the twelve months ended December 31, 2020, a decrease of €2.7 million or 11.6%, as compared to €23.3 million (3.8% of revenue) for the twelve months ended December 31, 2019. Excluding amortization and depreciation and non-recurring items such as additional contribution to a pension fund and severance payments, our Adjusted research and development costs decreased to €17.4 million or 3.1% of revenue for the twelve months ended December 31, 2020 from €20.1 million or 3.2% of revenue for the twelve months ended December 31, 2019.

General Administrative Costs

General administrative costs were €24.5 million (4.4% of revenue) for the twelve months ended December 31, 2020, a decrease of €2.6 million or 9.6%, as compared to €27.1 million (4.4% of revenue) for the twelve months ended December 31, 2019. Excluding amortization and depreciation and non-recurring items such as acquisition consulting and severance payments, our Adjusted general administrative costs decreased to €18.1 million or 3.3% of revenue for the twelve months ended December 31, 2020 from €18.5 million or 3.0% of revenue for the twelve months ended December 31, 2019.

Other Income and Expenses

Other expenses amounted to was €139.0 million for the twelve months ended December 31, 2020, a decrease of €203.9 million compared to other expenses of €342.9 million for the twelve months ended December 31, 2019. Excluding non-recurring items such as impairment expenses, transaction related expenses and foreign exchange effects, our Adjusted other incomes, net, were €4.2 million for the twelve months ended December 31, 2020, a deviation of €4.9 million as compared with Adjusted other expenses, net of €0.6 million for the twelve months ended December 31, 2019.

Interest Income and Other Finance Income

Interest income and other finance income was €6.8 million for the twelve months ended December 31, 2020, an increase of €4.7 million or 220.8%, as compared to €2.1 million for the twelve months ended December 31, 2019. This increase was mainly due to higher exchange rate gains.

Interest Expenses and Other Finance Costs

Interest expenses and other finance costs were €99.5 million for the twelve months ended December 31, 2020, a decrease of €0.9 million or 0.9%, as compared to €100.4 million for the twelve months ended December 31, 2019. This decrease was mainly due to higher interest expenses and losses on derivative valuations compensated by lower interest expenses from a shareholder loan. The financial expenses of €99.5 million include €50.9 million of interest expenses from syndicated loan, revolving credit line and bond, €22.7 million losses on derivative valuations, €19.1 million of interest expenses from a shareholder loan, €5.3 million of expenses from the effective interest rate method and €1.5 million of other interest expenses.

Income Tax Expenses

Income tax expenses were €2.8 million for the twelve months ended December 31, 2020 compared to tax expenses of €16.5 million for the twelve months ended December 31, 2019. This decrease was mainly due to lower current tax expenses resulting from the German Tax Group combined with lower deferred tax income from the PPA depreciation and higher deferred tax expenses from the valuation of derivatives.

Net Profit / Loss

As a result of the developments described above, net loss for the period was €149.2 million for the twelve months ended December 31, 2020, a decrease of €190.1 million compared to a net loss of €339.3 million for the twelve months ended December 31, 2019.

Financial Condition, Liquidity and Capital Resources

As of December 31, 2020, the gross financial debt, the cash balance as well as the undrawn Revolving Credit Facility were as follows (all figures are unaudited in EUR million as reported):

	As of December 31, 2020
	(in € million)
Gross debt (without accrued transaction costs)	**1,604.5**
thereof Bond	406.0
thereof Term loans	1,190.3
thereof Mark-to-market measured currency swaps	-
thereof Accrued interest	8.1
Cash	244.1
Net debt	**1,360.3**
Undrawn Revolving Credit Facility	67.0

The management-adjusted EBITDA for the last twelve months ended December 31, 2020 was €213.1 million, leading to the net debt leverage ratio of 6.4x, compared to the management-adjusted EBITDA for the last twelve months ended December 31, 2019 of €244.3 million and the net debt leverage ratio of 5.6x, respectively. Despite the overall softer business mainly due to Covid-19, the net debt leverage ratio remains on a similar level compared to Q2 and Q3/2020.

In January 2020, a distribution of €55 million was made from the group as a repayment on the shareholder loan and shareholder loan interest. In February 2020, €18 million and a further €49 million in March 2020 were drawn from the Revolving Credit Facility, which was fully repaid in September 2020. In December 2020, a syndicated loan of nominal €175 million was drawn.

Cash Flow Statement

The following table shows the cash flow statement for the twelve-month period ended December 31, 2020. All figures are unaudited in EURm as reported.

	Twelve Months Ended December 31, 2020	2019
	(in € million)	*(in € million)*
Net profit / net loss (-) for the period	-149.2	-339.3
Income tax expense / benefit (-)	2.8	16.5
Interest result	74.9	97.0
Amortisation, depreciation and impairment charges of non-current assets	244.2	447.2
Gain (-) / loss on disposal of property, plant and equipment and intangible assets	0.8	1.1
Decrease (-) in provisions (excluding deferred taxes)	-3.5	-0.8
Income tax payment (-)	-28.8	-36.0
Other non-cash income (-) / expenses, net	11.7	-1.6
Increase (-) / decrease in inventories	5.5	-0.6
Increase (-) / decrease in trade receivables	0.9	5.1
Increase (-) / decrease in other receivables and (financial) assets	-4.0	0.6
Increase / decrease (-) in trade payables	0.3	-6.8
Increase / decrease (-) in other (financial) liabilities	7.8	7.7
Cash flow from operating activities	**163.4**	**190.1**
Cash received from disposals of property, plant and equipment	0.6	0.4
Cash paid (-) for investments in property, plant and equipment	-34.3	-38.4
Cash paid (-) for investments in intangible assets	-3.9	-3.0
Cash paid (-) for the acquisition of entities	0.0	0.0
Cash flow from investing activities	**-37.6**	**-41.1**
Cash received from contribution to capital reserve	0.0	0.0
Cash received from issuance of bond	0.0	0.0
Cash received / paid (-) for the repurchase/purchase of bond	0.0	5.2
Cash received from syndicated loan	168.2	0.0
Cash paid (-) for amortization of syndicated loan	0.0	-53.9
Interest paid (-)	-90.8	-54.6
Repayment (-) of shareholder loan	-19.6	0.0
Cash paid for capitalized leases (right-of-use assets)	-2.9	-2.7
Cash flow from financing activities	**54.8**	**-106.0**
Increase in cash and cash equivalents	180.6	43.1
Net foreign exchange difference	-0.9	0.3
Cash and cash equivalents at the beginning of the period	64.4	21.1
Cash and cash equivalents at the end of the period	**244.1**	**64.4**

Cash flows from operating activities decreased from €190.1 million for the twelve months ended December 31, 2019 to €163.4 million for the twelve months ended December 31, 2020. The decrease is driven by an overall lower business in the context of Covid-19 partly compensated by solid operative working capital management.

Cash flows used in investing activities for property, plant and equipment and intangible assets decreased from €41.1 million for the twelve months ended December 31, 2019 to €37.6 million for the twelve months ended December 31, 2020. Due to the Covid-19 outbreak investing outflows were partly reduced or postponed.

Cash flows used in financing activities increased from an outflow of €-106.0 million for the twelve months ended December 31, 2019 to an inflow of €54.8 million for the twelve months ended December 31, 2020 driven by a syndicated loan with nominal €175.0 million.

Capital Expenditures

The following table provides an overview of our capital expenditures for the twelve months ended December 31, 2019 and 2020.

	Twelve Months Ended December 31,	
	2020	**2019**
	(in € million)	*(in € million)*
Additions to intangible assets	3.9	3.0
Additions to property, plant and equipment	32.8	40.6
Capital expenditures (gross)	**36.7**	**43.6**
Government grants	-	-
Capital expenditures (net)	**36.7**	**43.6**
Additions from business acquisitions	-	-

In general, our capital investment is split evenly between maintenance and growth projects. The decreased investment spending in the year ended December 31, 2020 is affected by the Covid-19 outbreak in that outflows were partly reduced or postponed. Cash outflow for the twelve months ended December 31, 2020 for intangible assets amounts to €3.9 million and for tangible assets amounts to €34.3 million.

Employees

By the end of the financial year 2020, the CeramTec Group employed 3,420 people, a decrease of 3.0% from the previous year.

	Headcount December 31,	
	2020	**2019**
Total Employees	**3,420**	**3,525**
Thereof by region		
Europe (excluding Germany)	629	639
Germany	1,975	2,065
North- and South America	303	325
Asia	513	496
Thereof by function		
Manufacturing	2,717	2,785
Sales	289	300
Research and development	161	186
Administration	253	254

In addition, 150 apprentices were employed by CeramTec group as of December 31, 2020.

Contractual Obligations

The following table summarizes our payments due by period from our contractual obligations as of December 31, 2020.

Payments due by period *(in € million)*		**Payments**					
	NBV 2020	**2021**	**2022**	**2023**	**2024**	**2025**	**After 2025**
Trade payables	29.0	29.0	-	-	-	-	-
Liabilities to banks	1.156.8	28.5	30.7	30.7	30.8	1,196.3	-
Bond liabilities	422.3	21.3	21.3	21.3	21.3	434.4	-
Liabilities to affiliates	273.8	0.3	-	-	-	-	484.4
Lease liabilities	5.4	1.9	1.2	0.7	0.5	0.3	1.2
Other financial liabilities	5.8	5.8	-	-	-	-	-
Total	**1,893.2**	**138.3**	**53.2**	**527**	**52.7**	**1,630.9**	**485.6**
Derivatives with a negative fair value: interest cap	4.7	2.4	2.1	1.0	0.1	-	-

Lease Commitments

According to IFRS 16 the right-of-use assets are initially measured at cost and subsequently measured at cost less accumulated depreciation and impairment losses, adjusted for any remeasurement of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at that date. Subsequently, the lease liability is adjusted for interest and lease payments, as well as the impact of lease modifications, amongst others.

The net carrying amount of the right-of-use assets breaks down as follows:

Right-of-use assets *(in € million)*	**2020**	**2019**
1. January	6.6	0.0
First-time adoption of IFRS 16 as at 1 January 2019	0.0	4.8
Additions cost	2.8	1.8
Disposals cost	-2.1	0.0
Reclassifications and fx effects	-0.3	0.0
Cost	**7.0**	**6.6**
1. January	2.5	0.0
Additions depreciation	2.6	2.5
Disposals depreciation	-2.1	0.0
Reclassifications and fx effects	-0.2	0.0
Depreciation	**2.8**	**2.5**
Net carrying amount	**4.2**	**4.1**

The corresponding lease liabilities to the right-of-use assets amount to €4.3 million.

The expenses from the right-of-use assets and the lease liabilities according to IFRS 16 are €2.6 million depreciation and €0.2 million interest expenses.

In the fiscal year payments for capitalized leases were made with an amount of €2.9 million.

Finance lease capitalized in prior years according to IAS 17 is included in the balance sheet as at December 31, 2020 with an amount €1.1 million net carrying value in property, plant and equipment and with €1.1 million in the lease liabilities.

Pension Commitments

We provide our employees with various defined benefit and defined contribution pension plans in relation to retirement, disability, and death benefits. The promised benefits differ from country to country depending on the legal, tax and economic conditions. Furthermore, the existing plans are subject to the respective local requirements as well as the financing and the plan assets of pension plans. The following table shows the pension obligations and market value of the plan assets of the defined benefit plans at the beginning and at the end of the financial year 2020.

	Year Ended December 31, 2020		
	German plans	Foreign plans	Total
	(in € million)	*(in € million)*	*(in € million)*
Benefit obligations at the beginning of the year	**109.5**	**12.7**	**122.2**
Service costs	4.1	0.0	4.2
Interest expenses	1.0	0.2	1.2
Remeasurements	8.4	1.0	9.3
Foreign currency translation	0.0	-0.7	-0.7
Benefits paid	-2.4	-0.4	-2.8
Benefit obligations at the end of the year	**120.6**	**12.8**	**133.4**
Market value of plan assets at the beginning of the financial year	**0.0**	**8.8**	**8.8**
Interest income from plan assets	0.0	0.2	0.2
Expense for managing the plans	0.0	-0.1	-0.1
Employer contributions	0.0	0.4	0.4
Remeasurements	0.0	0.7	0.7
Foreign currency translation	0.0	-0.5	-0.5
Benefits paid	0.0	-0.4	-0.4
Market value of the plan assets at the end of the year	**0.0**	**9.1**	**9.1**
Net obligation amount for pension benefits	**120.6**	**3.7**	**124.4**

The actuarial increase is primarily due to changes in financial assumptions. The expected contributions to the defined benefit plans by the employer until December 31, 2019 amount to €0.5 million.

Contingencies

Group companies are exposed to a limited number of litigation processes linked to the normal business activities mainly related to issues under commercial, product liability and intellectual property. To the extent that quantifiable obligations are expected to arise from these processes, the Group companies establish appropriate provisions on the balance sheet. There are no pending cases that are expected materially to impact the Group's net assets, financial position and/or results of operations.

Critical Accounting Policies and Significant Accounting Estimates

Please refer to notes to our consolidated financial statements for a detailed description of the accounting policies and accounting estimates applied.

Recent Developments

With effect as of January 4, 2021, Dentalpoint AG, a company based in Spreitenbach, Switzerland, was acquired. With this acquisition, the CeramTec Group invests into the high growth market for ceramic dental implants and continues to expand the offering in the Medical Products segment. The preliminary purchase price of €51.0 million was paid using cash and cash equivalents. Deviations from the preliminary purchase price will arise due to the purchase price mechanisms agreed upon. Due to the proximity of the transaction to the date of approval of the annual financial statements, there are not yet any results of the currently ongoing purchase price determination and allocation in accordance with IFRS 3. For the purchase price allocation, which is generally based on the fair values of the assets acquired and liabilities assumed, the recognition of intangible assets such as technologies, customer relationships and brands as well as goodwill is expected.

Unaudited Adjusted Financial Information

The following table shows unaudited leverage information for CeramTec AcquiCo GmbH, consistent with the rules set-out in the Senior Facilities Agreement dated December 14, 2017 and the CeramTec BondCo GmbH Prospectus.

	As of December 31, 2020
	(in € million)
Net third party senior secured indebtedness	946.2
Net third party indebtedness	1,352.2
Interest expenses	50.9
Consolidated Pro-Forma EBITDA	219.0
Ratio of net third party senior secured indebtedness to Consolidated Pro Forma EBITDA	4.3x
Ratio of net third party indebtedness to Consolidated Pro Forma EBITDA	6.2x
Ratio of Consolidated Pro Forma EBITDA to interest expense	4.3x

Net third party senior secured indebtedness is defined as third party senior secured indebtedness minus cash and cash equivalents, reflecting the amounts outstanding under the Term Loan Facility (Euro equivalent)
Net third party indebtedness is defined as third party indebtedness minus cash and cash equivalents reflecting the amounts outstanding under the Term Loan Facility and the principal amount of the Notes

Interest expense is defined as interest expense for the period from January 1, 2020 to December 31, 2020 and consists of interest on the Term Loan Facility and the Notes as well as the commitment fees on our undrawn Revolving Credit Facility.

Consolidated Pro-Forma EBITDA is calculated as set out in the Facilities Agreement and is higher than the Management Adjusted EBITDA presented elsewhere in this Review by €5.9 million, this amount consisting of certain net pension and other post-employment benefit costs of €7.0 million, certain restructuring charges of €0.5m, certain non-cash charges and write-downs of €1.1 million and other costs related mainly to management fees in the amount of €-2.7 million.

FINANCIAL REPORT

CeramTec TopCo GmbH

Plochingen

Consolidated Financial Statements for the year ended 31 December 2020

CeramTec TopCo GmbH, Plochingen

Interim condensed consolidated statement of financial position as at 31 December 2020

Assets	Notes	31 December 2020	31 December 2019
		EUR k	EUR k
Goodwill	4.1	874,613	1,011,678
Other intangible assets	4.1	976,472	1,038,533
Property, plant and equipment	4.2	278,689	289,387
Other financial assets	4.3	10,275	25,243
Other assets	4.4	4,078	1,107
Deferred tax assets		934	1,172
Non-current assets		**2,145,061**	**2,367,120**
Inventories	4.5	91,565	97,093
Trade receivables	4.6	51,880	52,740
Trade accounts receivable from affiliates		0	20
Income tax receivables		3,015	2,808
Other financial assets	4.3	3,262	3,074
Other receivables and assets	4.4	8,303	8,026
Cash and cash equivalents	4.7	244,118	64,380
Current assets		**402,143**	**228,141**
Total Assets		**2,547,204**	**2,595,261**

CeramTec TopCo GmbH, Plochingen

Interim condensed consolidated statement of financial position as at 31 December 2020

Equity and Liabilities	Notes	31 December 2020	31 December 2019
		EUR k	EUR k
Issued capital	4.8	25	25
Capital reserves	4.8	780,371	780,371
Accumulated losses	4.8	-598,134	-442,793
Accumulated other comprehensive income	4.8	-1,305	865
Equity		**180,957**	**338,468**
Provisions for pension obligations	4.9	124,350	113,433
Other provisions	4.10	2,761	5,506
Financial liabilities to affiliates	4.11	273,523	256,270
Financial liabilities to third parties	4.12	1,597,098	1,433,324
Other liabilities	4.13	3,763	0
Deferred tax liabilities		270,110	298,417
Non-current liabilities		**2,271,605**	**2,106,950**
Other provisions	4.10	15,797	17,765
Provision for taxes	4.10	3,929	4,425
Financial liabilities to affiliates	4.11	312	55,233
Financial liabilities to third parties	4.12	23,973	25,406
Trade payables		29,034	30,277
Other liabilities	4.13	21,597	16,737
Current liabilities		**94,642**	**149,843**
Total liabilities		**2,366,247**	**2,256,793**
Total equity and liabilities		**2,547,204**	**2,595,261**

CeramTec TopCo GmbH, Plochingen

Interim condensed consolidated statement of comprehensive income from 1 January to 31 December 2020

	Notes	1 January to 31 December 2020	1 January to 31 December 2019
		EUR k	EUR k
Revenue	3.1	552,702	620,376
Cost of sales	3.2	334,906	356,239
Gross profit		**217,796**	**264,137**
Selling costs	3.3	87,285	95,236
Research and development costs	3.4	20,628	23,341
General administrative costs	3.5	24,542	27,140
Other income and expenses (-), net	3.6	-138,975	-342,887
Operating income		**-53,634**	**-224,467**
Interest income and other finance income		6,849	2,135
Interest expenses and other finance costs		99,542	100,449
Financial result	3.7	**-92,693**	**-98,314**
Profit / loss (-) before income tax		**-146,327**	**-322,781**
Income tax expense	3.8	-2,848	-16,498
Net profit / net loss (-) for the period		**-149,175**	**-339,279**
Items that will not be reclassified through profit or loss			
Income / expenses (-) from the remeasurement of pension provisions		-8,638	-10,386
Deferred taxes		2,472	2,969
		-6,166	**-7,417**
Items that may be reclassified subsequently to profit or loss			
Losses (-) / gains on cash flow hedges		-404	718
Deferred taxes		117	-208
		-287	**510**
Changes in the fair value of financial assets available for sale		0	-331
Deferred taxes		0	95
		0	**-236**
Exchange differences on translation of foreign operations		-1,884	-676
Other comprehensive loss, net of income tax		**-8,337**	**-7,819**
Total comprehensive income / loss (-)		**-157,512**	**-347,098**

CeramTec TopCo GmbH, Plochingen

Interim condensed consolidated statement of cash flows from 1 January to 31 December 2020

	1 January to 31 December 2020 EUR k	1 January to 31 December 2019 EUR k
Net loss for the period	-149,175	-339,279
Income tax expense	2,847	16,499
Interest result	74,867	96,997
Amortisation, depreciation and impairment charges of non-current assets	244,160	447,168
Loss on disposal of property, plant and equipment and intangible assets	799	1,059
Decrease (-) in provisions (excluding deferred taxes)	-3,491	-817
Income tax payment (-)	-28,832	-35,950
Other non-cash income (-) / expenses, net	11,749	-1,553
Increase (-) / decrease in inventories	5,529	-596
Decrease in trade receivables	860	5,140
Increase (-) / decrease in other receivables and (financial) assets	-3,990	597
Increase / decrease (-) in trade payables	305	-6,820
Increase in other (financial) liabilities	7,805	7,650
Cash flow from operating activities	**163,433**	**190,095**
Cash received from disposals of property, plant and equipment	625	355
Cash paid (-) for investments in property, plant and equipment	-34,328	-38,417
Cash paid (-) for investments in intangible assets	-3,935	-3,027
Cash flow from investing activities	**-37,638**	**-41,089**
Cash received from (+) / paid for (-) the sale / repurchase of bond	0	5,163
Cash received from syndicated loan	168,161	0
Repayment (-) of syndicated loan	0	-53,872
Interest paid (-)	-90,831	-54,565
Repayment (-) of shareholder loan	-19,599	0
Cash paid for capitalized leases (right-of-use assets)	-2,886	-2,676
Cash flow from financing activities	**54,845**	**-105,950**
Increase in cash and cash equivalents	**180,640**	**43,056**
Net foreign exchange difference	-902	266
Cash and cash equivalents at the beginning of the period	64,380	21,058
Cash and cash equivalents at the end of the period	**244,118**	**64,380**

Please refer to notes, section 5

CeramTec TopCo GmbH, Plochingen

Interim condensed consolidated statement of changes in equity for the period ended 31 December 2020

	Issued capital	**Capital reserves**	**Accumulated losses**	**Accumulated other comprehensive income**			**Equity**
				Cash flow hedge reserve	Financial assets available for sale	Difference from currency translation	
	EUR k	EUR k	EUR k	EUR k	EUR k	EUR k	EUR k
31 December 2018	**25**	**500,417**	**-96,096**	**0**	**236**	**1,031**	**405,613**
Net loss for the period	0	0	-339,279	0	0	0	-339,279
Other comprehensive income / loss (-)	0	0	-7,417 1)	510 2)	-236 2)	-676 2)	-7,819
Total comprehensive income / loss (-)	*0*	*0*	*-346,697*	*510*	*-236*	*-676*	-347,098
Contribution by owners	0	279,954	0	0	0	0	279,954
31 December 2019	**25**	**780,371**	**-442,793**	**510**	**0**	**355.03**	**338,468**
31 December 2019	**25**	**780,371**	**-442,793**	**510**	**0**	**355**	**338,468**
Net loss for the period	0	0	-149,175	0	0	0	-149,175
Other comprehensive loss	0	0	-6,166 1)	-287 2)	0 2)	-1,884 2)	-8,336
Total comprehensive loss	*0*	*0*	*-155,341*	*-287*	*0*	*-1,884*	-157,511
31 December 2020	**25**	**780,371**	**-598,134**	**223**	**0**	**-1,528**	**180,957**

1) Other comprehensive income that will not be reclassified to profit or loss in the future
2) Other comprehensive income to be reclassified to the income statement in the future under certain conditions

CeramTec TopCo GmbH

Plochingen

Notes to the Consolidated Financial Statements for the year ended December 31, 2020

1 General

1.1 Corporate information and purpose of the Company

The purpose of CeramTec TopCo GmbH (hereinafter "CeramTec TopCo") 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 controlling shareholding or to entities that are controlled by the same shareholder. It is authorized to establish branch offices, legal entities and other operations in Germany and abroad, and acquire, invest in and hold these investments and/or manage them as well as enter into and/or issue various financial instruments.

CeramTec TopCo and its subsidiaries are a group of leading global developers, manufacturers and suppliers of high performance ceramics ("HPC") solutions. The HPC solutions are made of advanced ceramics, which are highly specialized materials with superior biological, mechanical, electric, thermal and/or chemical properties compared to often competing products made from metal or organic polymers (plastics). The operations can be divided into two businesses – Medical Products and Industrial. The Medical Products business focuses on developing and manufacturing ceramic components for hip joint prostheses. The Industrial business develops, manufactures and supplies a broad range of highly specialized, application-intensive technical HPC solutions for customers spanning a range of industries including automotive, electronics, industrial machinery and medical equipment.

CeramTec TopCo's registered office is located at CeramTec-Platz 1-9 in 73207 Plochingen, Germany, and is registered at the Stuttgart local court (*Amtsgericht*) under the number HRB 764651. CeramTec TopCo is the parent company of the Group (hereinafter "CeramTec TopCo Group" or "Group") and the ultimate parent, which prepares exempting consolidated financial statements.

The management of CeramTec TopCo approved the consolidated financial statements on April 14, 2021 for submission to the shareholder meeting.

1.2 Basis for the preparation of the consolidated financial statements

As of March 8, 2018, the former owner Cinven closed the acquisition of CeramTec Group by a consortium led by funds advised by leading private equity firm BC Partners ("BC Partners"). The Public Sector Pension Investment Board (PSP Investments) and Ontario Teachers' Pension Plan (Ontario Teachers') are also part of the consortium. CeramTec AcquiCo GmbH (hereinafter "CeramTec AcquiCo") acquired the shares in CeramTec Holding GmbH (hereinafter "CeramTec Holding"). CeramTec AcquiCo is a 100% subsidiary of CeramTec BondCo GmbH (hereinafter "CeramTec BondCo"), which is itself a 100% subsidiary of CeramTec TopCo. CeramTec TopCo is the German ultimate parent company, and prepares consolidated financial statements. CTEC I S.a.r.l., Luxembourg, is the ultimate controlling parent company.

The consolidated financial statements are prepared pursuant to Section 315e (1) and (3) of the German Commercial Code (*Handelsgesetzbuch* – HGB) 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 financial year and the supplementary requirements of German commercial law. These consolidated financial statements are prepared for the largest and smallest groups of consolidated companies.

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 consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the CeramTec TopCo Group.

The consolidated financial statements are presented in euro. The amounts are shown in thousands of euros (kEUR) in the consolidated financial statements. 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 consolidated statement of financial position and consolidated statement of comprehensive income were combined and explained accordingly in the notes to the consolidated financial statements. Assets and liabilities are broken down into non-current and 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 TopCo has a direct or indirect shareholding are included in the consolidated financial statements for the financial year:

Name of the entity	Share of capital in % December 31, 2020	Share of capital in % December 31, 2019	Business activities
CeramTec BondCo GmbH, Plochingen	100.00	100.00	1
CeramTec AcquiCo GmbH, Plochingen	100.00	100.00	1
CeramTec Holding GmbH, Plochingen	100.00	100.00	1
CeramTec Group GmbH, Plochingen	100.00	100.00	1
CeramTec FinCo 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	1
CeramTec-ETEC GmbH, Lohmar	100.00	100.00	3
Emil Müller GmbH, Wilhermsdorf	100.00	100.00	3
CeramTec UK Ltd., Southampton/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	4
CeramTec Innovative Ceramic Engineering, (M) Sdn. Bhd., Seremban/Malaysia	100.00	100.00	3
CeramTec Korea Ltd., Suwon-Si/South 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	3
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	3
CeramTec BidCo LLC, Laurens/USA	100.00	100.00	1
CeramTec Acquisition LLC, Laurens/USA	100.00	100.00	1

Name of the entity	Share of capital in % December 31, 2020	Share of capital in % December 31, 2019	Business activities
CeramTec North America LLC, Laurens/USA	100.00	100.00	3
DAI Ceramics LLC, Willoughby/USA	100.00	100.00	3
PST Press + Sintertechnik Sp. z.o.o., Gorzyce/Poland	100.00	100.00	3

1 Entities performing the functions of a holding company.
2 Manufacturing and distribution companies operating in the Industrial and Medical Products segments.
3 Manufacturing and distribution companies operating in the Industrial segment.
4 Distribution companies.

CeramTec TopCo has a direct shareholding in CeramTec BondCo, and an indirect shareholding in the other subsidiaries.

CeramTec BondCo, CeramTec AcquiCo, CeramTec Holding, CeramTec Group, CeramTec FinCo 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 financial year 2020 pursuant to Section 264 (3) HGB.

2 Accounting Principles and Policies

2.1 Basis of consolidation

Entities included in the consolidated financial statements are included from the date on which CeramTec TopCo obtains control over them. They are deconsolidated on the date on which CeramTec TopCo 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 taxes are recognized for temporary differences arising from consolidation entries.

If less than 100% of equity in a subsidiary is allocable to CeramTec TopCo, 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 transaction 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 TopCo 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 recognized amounts of the acquiree's identifiable net assets. This option can be newly exercised each time a business combination takes place. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in other standards.

If a company which is part of the CeramTec TopCo Group acquires an entity, it measures the financial assets and liabilities for appropriate classification and designation in accordance with the contractual terms, economic circumstances 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 and is taken into account when determining goodwill.

All contingent consideration that must be transferred by the acquirer is recognized at fair value as of the date of acquisition. Any contingent consideration classified as an asset or liability, which is recognized as a financial instrument under IFRS 9 *Financial Instruments*, is measured at fair value. Changes in the fair value are recognized through profit or loss. Should the contingent consideration not fall under IFRS 9, 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 impairments. Goodwill is tested for impairment at least once a year (in the fourth quarter) as well as when 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 TopCo, 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.

If goodwill has been allocated to 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 TopCo 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 rates. The remaining items of the statement of financial position are translated at the respective closing rates. Income and expenses are translated at annual average rates. These are calculated as the mean value from the individual monthly average rates of the past twelve months.

Differences from the currency translation of assets and liabilities compared to the translation of December 31, 2019 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 are as follows:

		2020		2019	
		Closing rate	Average rate	Closing rate	Average rate
USD	USA	1.2281	1.1412	1.1189	1.1196
CNY	China	8.0134	7.8706	7.8175	7.7338
GBP	Great Britain	0.9031	0.8892	0.8521	0.8773
PLN	Poland	4.5565	4.4429	4.2567	4.2975
CZK	Czech Republic	26.2520	26.4557	25.4630	25.6701

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

2.2 Accounting policies

Revenue recognition

Revenue is recognized in accordance with the five-step model framework applied to all contracts with customers pursuant to IFRS 15. In accordance with this five-step model, the contract with the customer is first identified (step 1). The performance obligations in the contract are then identified (step 2). The transaction price is then determined (step 3) with explicit requirements stipulated on how to account for variable consideration, financing components, payments made to a customer, and exchanges of goods or services. After determining the transaction price, the transaction price is allocated to each of the performance obligations in the contract (step 4), by reference to their relative standalone selling prices. Finally, revenue is recognized when (or as) the entity satisfies a performance obligation (step 5). As a requirement, revenue can only be recognized once (or as) control of the goods or services is transferred to the customer.

The Group does not offer guarantees to customers that provide greater protection than that stipulated by law. The Group does usually not grant customers extensions of payment terms. However, in specific cases, special agreements can be concluded. In addition, agreements are in place with individual customers (mainly Medical Products customers), which provide for a bonus/malus system. Revenue is only recognized to the extent to which it is highly probable that a significant cancellation of revenue will not be necessary if the related uncertainty has ceased to exist. There is no significant financing component, as the agreed-upon payment terms are mainly between 30 and 60 days. A warranty provision is set up for the Group's obligation to repair or replace defective products under standard warranty conditions.

Upon conclusion of a contract, the CeramTec TopCo Group companies determine whether revenue resulting from the contract should be recognized at a point in time or over time. The CeramTec TopCo Group uses specific criteria to determine whether control is transferred over time. If it is not, revenue is recognized when control is passed to the customer.

The CeramTec TopCo Group generates revenue mainly through the sale of goods and merchandise. Consequently, revenue from the majority of contracts with customers is recognized when control is transferred to a customer (when the customer has legal title to the asset, has the significant risks and rewards related to the ownership of the asset, or has formally accepted the asset).

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 recognized as expenses in the period in which they are 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 recognized 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 development of the intangible asset and use or sell it
- Ability to use or sell the intangible asset
- Existence of a market or demonstration of the usefulness of the intangible asset 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 impairments.

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 financial 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 it amounts to 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 is recognized. Trademarks are assigned an indefinite useful life based on expectations of future use.

Impairment is assessed by comparing the carrying amount of the intangible assets with its recoverable amount at the level of the cash-generating units. 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 cash-generating unit's fair value less the cost to sell or its value in use. An impairment is carried out if the carrying amount exceeds the recoverable amount. In the event of an impairment being 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 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 impairments.

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 and 3 to 12 years for other equipment, furniture and fixtures. Low-value assets with an acquisition cost not exceeding EUR 250 are expensed immediately. Low-value assets with cost of between EUR 250 and EUR 1,000 are recognized in a catch-all item and depreciated collectively over a period of 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 cash-generating unit's fair value less the cost to sell or its value in use. An impairment is carried out if the carrying amount exceeds the recoverable amount. In the event of an impairment being reversed, the amortized cost is written up.

Leases

A lease within the meaning of IFRS 16 exists if a customer is contractually given the right to control an identified asset. For all leases, the lessee must account for the right-of-use asset (RoU asset) as well as a corresponding lease liability. Exceptions to this exist only for short-term leases and leases of low-value assets and for certain intangible assets.

The initial amount of the right-of-use asset corresponds to the amount of the lease liability. In subsequent reporting periods, the right-of-use asset is (apart from certain exceptions) measured at cost less accumulated depreciation and impairments, adjusted for any remeasurement of the lease liability. The lease liability is initially measured at the present value of the lease payments that are paid over the lease term. In addition to the contractual basic lease term, all facts and circumstances, which provide reasonable assurance of the economic incentive of exercising a termination or extension option, are taken into account in determining the lease term. The present values of the lease liabilities are generally discounted using an incremental borrowing rate. Subsequently, the carrying amount of the lease liability is adjusted for interest using the discount rate and reduced in the amount of the lease payments made. Modifications to the lease payments result in a remeasurement of the lease liability. Cash flows are broken down into payments of principal and payments of interest, which are part of the cash flow from financing activities and the cash flow from operating activities respectively.

Financial assets

Financial assets are recognized when a group entity becomes a party to the contractual provisions of the instrument.

Financial assets are initially measured at fair value. Transaction costs that are directly attributable to the acquisition of financial assets (other than financial assets at fair value through profit or loss) are added to the fair value of the financial assets on initial recognition. Transaction costs directly attributable to the acquisition of financial assets that are measured at fair value through profit or loss are recognized immediately in profit or loss.

Financial assets are recognized and derecognized on a trade date basis if delivery of the assets within the time frame established by regulation or convention in the marketplace is required.

All recognized financial assets are subsequently measured in their entirety at either amortized cost or fair value, depending on the classification of the financial assets.

Classification of financial assets

Debt instruments that meet the following conditions are subsequently measured at amortized cost:

- the financial asset is held within a business model whose objective is to collect contractual cash flows; and
- the contractual terms of the financial asset give rise solely to payments of principal and interest on the principal amount outstanding.

Debt instruments that meet the following conditions are measured at fair value through other comprehensive income (FVTOCI):

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets; and

- the contractual terms of the financial asset give rise to solely payments of principal and interest on the nominal amount outstanding.

All other financial assets that do not fulfill the aforementioned conditions are generally measured at fair value through profit or loss (FVTPL).

The Group neither recognizes debt instruments that are measured at FVTOCI nor equity instruments designated to be classified as FVTOCI.

Amortized cost and effective interest method

The effective interest method is a method of calculating the amortized cost of a debt instrument and of allocating interest income over the relevant period.

For financial assets for which no objective evidence of impairment was present upon their origination or purchase, the effective interest rate is the rate that discounts estimated future cash receipts (including all fees that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) excluding expected credit losses, through the expected life of the debt instrument, or, where appropriate, a shorter period, to the gross carrying amount on initial recognition. For financial assets for which objective evidence of impairment was present upon their origination or purchase, a credit-adjusted effective interest rate is calculated by discounting the estimated future cash flows, including expected credit losses.

The amortized cost of a financial asset is the amount at which the financial asset is measured at initial recognition minus the principal repayments, plus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. The gross carrying amount of a financial asset is the amortized cost of a financial asset before adjusting for any loss allowance.

Interest income is recognized using the effective interest method for debt instruments measured at amortized cost or at FVTOCI. For financial assets for which objective evidence of impairment was present upon their origination or purchase, interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for financial assets for which objective evidence of impairment subsequently arose. For these latter financial assets, interest income is recognized by applying the effective interest rate to the net carrying amount of the financial asset at the beginning of the reporting period that follows the occurrence of objective evidence of impairment. If, in subsequent reporting periods, the credit risk of such a financial instrument improves so that there is no longer objective evidence of impairment, interest income is recognized again by applying the effective interest rate to the gross carrying amount of the financial asset at the beginning of the following reporting period.

For purchased or originated credit-impaired financial assets, the Group recognizes interest income by applying the credit-adjusted effective interest rate to the amortized cost of the financial asset from initial recognition. The interest rate calculation does not revert to the gross basis even if the credit risk of the financial asset subsequently improves so that the financial asset is no longer credit-impaired.

Interest income is recognized in the consolidated statement of comprehensive income and is included in the "Interest income and other finance income" line item.

Financial assets at FVTPL

Financial assets at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognized in profit or loss to the extent they are not part of a designated hedging relationship. The net gain or loss recognized in profit or loss incorporates any dividend or interest earned on financial assets and is included in the "Interest income and other finance income" or "Interest expenses and other finance costs" line items respectively.

Impairment of financial assets

The Group generally recognizes a loss allowance for expected losses on financial investments in debt instruments that are measured at amortized cost or at FVTOCI, finance lease receivables, trade receivables and contract assets. The amount of expected losses is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

The Group recognizes a loss allowance for all trade receivables in the amount of the expected losses based on debtor-specific factors and information about their current economic situations. When estimating this, reference is also made to actual credit loss experiences of debtors. Irrespective of the above approach, the Group considers a default to have occurred when a financial asset is more than 60 days/90 days past due unless the Group has reasonable and supportable information to demonstrate that a financial asset is still unimpaired.

For all other financial instruments, the Group recognizes a loss allowance in the amount of the expected losses over their lifetimes if the credit risk of the financial instrument has increased significantly since initial recognition. If, however, the credit risk of the financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to the expected 12-month loss.

The Group directly writes off a financial asset and hence reduces the gross carrying amount when there is information indicating that the debtor is in significant financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings. Financial assets written off may still be subject to enforcement activities under the Group's recovery procedures. Any recoveries made are recognized in profit or loss.

In addition to using external sources of information, the measurement of expected credit losses is based on the probability of default, loss given default (i.e. the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information as described above.

Derecognition of financial assets

Derecognition of financial assets is carried out by the Group only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to a third party. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognizes its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognize the financial asset and also recognizes a collateralized borrowing for the consideration received.

On derecognition of a financial asset measured at amortized cost, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. In addition, on derecognition of an investment in a debt instrument classified as at FVTOCI, the cumulative gain or loss previously accumulated in the investments revaluation surplus is reclassified to profit or loss. In contrast, on derecognition of an investment in equity instruments which the Group has elected on initial recognition to measure at FVTOCI, the cumulative gain or loss previously accumulated in the investments revaluation surplus is not reclassified to profit or loss, but is transferred to retained earnings.

Financial liabilities

Financial liabilities are recognized when a group entity becomes a party to the contractual provisions of the instrument. Financial liabilities are measured at amortized cost using the effective interest method, or at fair value through profit or loss.

Financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the issue of financial liabilities (other than financial liabilities at fair value through profit or loss) are deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial liabilities that are measured at fair value through profit or loss are recognized immediately in profit or loss.

Financial liabilities at FVTPL

Financial liabilities are classified as financial liabilities at FVTPL when the financial liability is contingent consideration of an acquirer in a business combination, is held for trading, or is voluntarily designated as at FVTPL.

A financial liability is classified as held for trading if:

- it has been acquired principally for the purpose of repurchasing it in the near term; or
- on initial recognition it is part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative, except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument.

A financial liability other than a financial liability held for trading or contingent consideration of an acquirer in a business combination may be designated as at FVTPL upon initial recognition if:

- such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or
- the financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Group's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- it forms part of a contract containing one or more embedded derivatives, and IFRS 9 permits the entire combined contract to be designated as at FVTPL.

Designated financial liabilities at FVTPL are measured at fair value. Any gains or losses arising on changes in the fair value are recognized in profit or loss unless the financial liabilities are designated as hedging instruments as part of a hedging relationship.

However, for financial liabilities that are designated as at FVTPL, the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability is recognized in other comprehensive income, unless the recognition of the effects of changes in the liability's credit risk in other comprehensive income would create or enlarge an accounting mismatch in profit or loss. The remaining amount of change in the fair value of the liability is recognized in profit or loss. Changes in fair value attributable to a financial liability's credit risk that are recognized in other comprehensive income are not subsequently reclassified to profit or loss; instead, they are transferred to retained earnings upon derecognition of the financial liability.

Financial liabilities measured at amortized cost

Financial liabilities that are not a contingent consideration of an acquirer in a business combination, held for trading, or voluntarily designated as at FVTPL, are financial liabilities subsequently measured at amortized cost using the effective interest method.

The effective interest method is a method of calculating the amortized cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that discounts estimated future cash payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial liability, or a shorter period, to the net carrying amount of a financial liability on initial recognition.

Derecognition of financial liabilities

Derecognition of financial liabilities is carried out by the Group when, and only when, the Group's obligations are discharged, canceled or they expire. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss.

Derivative financial instruments

Derivative financial instruments are initially recognized 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 recognized in profit or loss immediately.

Derivatives embedded in non-derivative host contracts that are not financial assets within the scope of IFRS 9 (e.g. financial liabilities) are treated as separate derivatives when they meet the definition of a derivative, their risks and characteristics are not closely related to those of the host contracts and the entire contract concerned is not measured at FVTPL.

Offsetting financial instruments

Financial assets and liabilities are offset and the net amount is reported in the statement of financial position if there is a legally enforceable 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.

Measurement at fair value

On the reporting date, the CeramTec TopCo 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 TopCo 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 would also take 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, production costs also comprise a share of production-related indirect material and labor overheads, including depreciation insofar as it 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 TopCo 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 write-up can at most be up to the original cost amount.

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 and employee age and gender are also factored into calculations. Pension obligations in Germany are determined on the basis of the 2018G Guideline 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.

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 reimbursable by an external third party, this claim is recognized as an asset if the reimbursement is virtually certain and the 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. A contingent liability is disclosed in the notes to the financial statements, unless the possibility of an outflow of resources embodying economic benefits is remote. Contingent assets are also not recognized in the statement of financial position. They are described in the notes to the financial statements provided an inflow of economic benefits is 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. Such deferred tax assets and liabilities are not recognized if the temporary difference arises from goodwill or the initial recognition (other than in a business combination) of other assets and liabilities in transactions that effect neither the taxable profit nor the accounting profit. Deferred tax assets are recognized to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

Deferred tax assets also include tax refund claims that result from the expected utilization of existing unused losses or interest carryforwards in subsequent years and the recognition of which, being based on future taxable profits, is ensured with reasonable assurance.

Deferred tax assets and deferred tax liabilities are measured at the tax rates that are expected to apply in the period 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 taxes are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity, in which event the current and deferred taxes are also recognized in other comprehensive income or directly in equity, respectively.

Deferred tax assets and deferred tax liabilities are offset if the Group has a legally enforceable right to set off current tax assets against current 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 BondCo (as the parent company), CeramTec AcquiCo, CeramTec Holding, CeramTec Group, CeramTec FinCo GmbH, CeramTec GmbH, Cerasiv GmbH Innovatives Keramik-Engineering, CeramTec-ETEC GmbH and Emil Müller GmbH.

Furthermore, a consolidated tax group for VAT purposes is in place between CeramTec AcquiCo 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 assets, liabilities, financial position and financial performance of the CeramTec TopCo Group. The underlying assumptions are revised regularly. However, the actual results may vary from those anticipated.

In the process of applying the accounting and valuation methods of the CeramTec TopCo 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 fair value of liabilities assumed. In addition, the expected useful lives of acquired intangible assets and property, plant and equipment need 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 profit/loss for the period of the CeramTec TopCo Group.

Goodwill of EUR 874,613k (December 31, 2019: EUR 1,011,678k) and other intangible assets of EUR 976,472k (December 31, 2019: EUR 1,038,533k) were recognized as of the reporting date.

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 financial year can be found in notes 4.1 Goodwill and intangible assets and 4.2 Property, plant and equipment.

Valuation allowances on receivables

Allowances for receivables are recognized based on assumptions about default risk and expected loss given default. The CeramTec TopCo Group exercises judgment to make the assumptions and select inputs used in determining the allowances by reference to past default experience, prevailing market conditions, and forward-looking estimates as of the end of the reporting period.

Accordingly, receivables are reduced by appropriate specific 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). The allowances are allocated to level 3 in the fair value hierarchy under IFRS 9. As of the reporting date, an impairment loss of EUR 495k was identified as necessary (December 31, 2019: EUR 760k).

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 124,350k were recorded as of the end of the reporting period (December 31, 2019: EUR 113,433k).

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 occur 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.

In the aggregate, provisions (other provisions and provisions for taxes) of EUR 22,487k were recorded as of the end of the reporting period (December 31, 2019: EUR 27,696k).

Deferred tax assets

The calculation of deferred tax assets requires assumptions to be made relating to the future taxable income and historical 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 TopCo 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 934k were recognized (December 31, 2019: EUR 1,172k).

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

The following IFRSs and IFRICs were revised:

Standards and interpretations	Date of first-time adoption
IFRS 3: "Business Combinations"	January 1, 2020
IAS 1 / IAS 8: "Definition of Material (Amendments to IAS 1 and IAS 8)"	January 1, 2020
IFRS 9 / IAS 39 / IFRS 7: "Interest Rate Benchmark Reform – Phase 1"	January 1, 2020
Revised Conceptual Framework IFRS	January 1, 2020
IFRS 16: "Covid-19 related Rent Concessions"	June 1, 2020

The aforementioned changes do not have an effect on the consolidated financial statements of the CeramTec TopCo Group.

Revised and newly issued IFRSs and IFRICs not yet mandatorily to be adopted

The following revised IFRSs and IFRICs were not yet to be adopted mandatorily in the financial year or have not yet been adopted by the Commission of the European Communities under the endorsement procedure for the European Union. In the financial year, none of these new or amended standards and interpretations has been early adopted.

Standards and interpretations	Date of first-time adoption
IFRS 9 / IAS 39 / IFRS 7 / IFRS 4 / IFRS 16: "Interest Rate Benchmark Reform – Phase 2"	January 1, 2021
IFRS 4: "Extension of the Temporary Exemption from Applying IFRS 9 (Amendments to IFRS 4)"	January 1, 2021
IFRS 3: "Reference to the Conceptual Framework (Amendments to IFRS 3)"	January 1, 2022
IAS 37: "Onerous Contracts – Cost of Fulfilling a Contract (Amendments to IAS 37)"	January 1, 2022
IAS 16: "Property, Plant and Equipment – Proceeds before Intended Use (Amendments to IAS 16)"	January 1, 2022
Annual Improvements to IFRS Standards (2018 – 2020) for IFRS 1, IFRS 9, IFRS 16 and IAS 41	January 1, 2022
IFRS 17: "Insurance Contracts"	January 1, 2023
IAS 1: "Classification of Liabilities as Current or Non-Current (Amendments to IAS 1)"	January 1, 2023

The aforementioned changes will not have a significant effect on the consolidated financial statements of the CeramTec TopCo Group.

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 businesses as follows:

	2020 kEUR	2019 kEUR
Regions		
Europe (w/o Germany)	233,661	270,261
Germany	111,748	141,908
Asia	105,435	100,416
North America	91,194	91,766
Other regions	10,664	16,025
Total	**552,702**	**620,376**
Businesses		
Industrial	322,531	361,689
Medical Products	230,171	258,687
Total	**552,702**	**620,376**

Orders on hand amount to EUR 196,360k as of the reporting date (December 31, 2019: EUR 177,262k), and will probably be realized within the next twelve months. Thereof, EUR 129,042k (December 31, 2019: EUR 117,676k) is attributable to the Industrial business and EUR 67,318k (December 31, 2019: EUR 59,586k) is attributable to the Medical Products business.

3.2 Cost of sales

The cost of sales breaks down as follows:

	2020 kEUR	2019 kEUR
Personnel expenses	124,398	130,864
Material and packaging costs	101,459	116,295
Amortization and depreciation	55,817	55,885
Other costs of sales	53,232	53,195
Total	**334,906**	**356,239**

Other costs of sales primarily contain energy costs, freight 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 (-) breaks down as follows:

	2020 kEUR	2019 kEUR
Impairment of goodwill	-137,065	-329,753
Foreign currency results	-863	-667
Losses on disposal of property, plant and equipment	-799	-1,059
Income from reversal of allowances for bad debts	385	74
Addition to allowance for bad debts	-195	-591
Impairment of property, plant and equipment	-186	-4,806
Impairment of other intangible assets	0	-5,456
Impairment of financial assets	0	-2
Transaction costs	0	-146
Sundry other income	562	484
Sundry other expenses	-814	-965
Total	**-138,975**	**-342,887**

The annual impairment test resulted in the need to recognize impairment losses of EUR 137,065k (prior year: EUR 329,753k) with regard to goodwill of the Industrial cash-generating unit (CGU). Please refer to note 4.1.

Impairment of property, plant and equipment of EUR 186k (prior year: EUR 4,806k) results mainly from the permanent shutdown of machinery. The losses on disposal of property, plant and equipment in the amount of EUR 799k (prior year: EUR 1,059k) result mainly from the scrapping of machinery.

Sundry other expenses include mainly costs related to a discontinued product line.

3.7 Financial result

The financial result breaks down as follows:

	2020 kEUR	2019 kEUR
Foreign currency gains from financial liabilities	5,276	190
Income from discounting of financial liabilities	1,447	1,380
Other finance and interest income	126	565
Interest income and other finance income	**6,849**	**2,135**
Interest expense from syndicated loan	28,357	31,612
Interest expense from derivatives	22,710	1,274
Interest expense from bond	21,315	21,062
Interest expense from shareholder loan	19,131	38,768
Expense from unwinding the discount on financial liabilities	5,242	4,287
Interest expense from provision and use of revolving credit line	1,271	693
Other interest expenses	2,172	3,175
Interest capitalized	-656	-422
Interest expenses and other finance costs	**99,542**	**100,449**
Financial result	**-92,693**	**-98,314**

Other interest expenses include an amount of EUR 1,058k (prior year: EUR 1,897k), which is due to unwinding the discount on provisions.

3.8 Income tax

There is a consolidated tax group for income tax purposes between CeramTec BondCo and its German subsidiaries. CeramTec TopCo is not included in the German consolidated tax group for income tax purposes.

This means that German corporate income tax and trade tax is only levied at the level of the parent company, CeramTec BondCo.

CeramTec TopCo also has indirect shareholdings in foreign corporations.

The current income taxes of the CeramTec TopCo 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.

The loss before income tax of EUR -146,327k (prior year: EUR -322,781k) is allocable to Germany and abroad as follows:

	2020 kEUR	2019 kEUR
Germany	-170,883	-343,446
Abroad	24,556	20,665
Total	**-146,327**	**-322,781**

The tax expense of EUR -2,848k (prior year: EUR -16,498k) breaks down as follows:

	2020 kEUR	2019 kEUR
Current income tax expense	-28,123	-34,434
Deferred tax income	25,275	17,936
Tax expense (-) / tax income (+)	**-2,848**	**-16,498**

Overall, the CeramTec TopCo Group's tax rate, based on the profit before income tax and mainly driven by the German entities, is 28.9% (prior year: 28.7%), which will be used for the following reconciliation. The effective tax rate, i.e., tax expense in relation to profit before income tax, factors in both the current and the deferred tax expense and takes into account all influential factors, such as non-deductible operating expenses or a change in the assessment base.

	2020 kEUR	2020 %	2019 kEUR	2019 %
Profit (+) / loss (-) before income tax	**-146,327**		**-322,781**	
Expected tax income	42,284	28.9%	92,597	28.7%
Permanent differences	-3,246	-2.2%	-3,228	-1.0%
Non-tax deductible impairment of goodwill	-39,607	-27.1%	-94,597	-29.3%
Tax rate differences	1,830	1.3%	1,499	0.5%
Non-recognition of deferred tax assets on interest carryforwards	-5,947	-4.1%	-8,370	-2.6%
Tax expense (-) / tax income (+) for previous years	1,796	1.2%	-2,149	-0.7%
Effects of changed income tax rates	-441	-0.3%	-2,440	-0.8%
Other adjustments	483	0.3%	190	0.1%
Tax expense (-) / tax income (+) and effective tax rate	**-2,848**	**-1.9%**	**-16,498**	**-5.1%**

The effects of permanent differences result mainly from trade tax add-backs in the amount of EUR 2,229k as well as other non-deductible operating expenses of EUR 1,017k.

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 the taxes are levied by the same tax authority.

In the consolidated statement of financial position, deferred taxes are disclosed as follows:

	December 31, 2020 kEUR	December 31, 2019 kEUR
Deferred tax assets	934	1,172
Deferred tax liabilities	270,110	298,417
Net amount of deferred tax liabilities	**269,176**	**297,245**

The deferred tax assets and liabilities stem from the following:

	December 31, 2020 Assets kEUR	December 31, 2020 Liabilities kEUR	December 31, 2019 Assets kEUR	December 31, 2019 Liabilities kEUR
Tax loss carryforwards	71	0	48	0
Property, plant and equipment	733	22,432	820	25,080
Goodwill and other intangible assets	1,509	281,391	1,941	300,319
Inventories, receivables and other assets	16,366	4,245	14,832	8,695
Non-current provisions	27,559	6,525	25,664	6,394
Current provisions and other liabilities	3,870	4,691	5,587	5,649
Total deferred taxes	**50,108**	**319,284**	**48,892**	**346,137**
Offsetting	-49,174	-49,174	-47,720	-47,720
Deferred taxes	**934**	**270,110**	**1,172**	**298,417**

The following table shows the development of the net amount of deferred tax liabilities:

	2020 kEUR	2019 kEUR
Net amount of deferred tax liabilities as of January 1	**297,245**	**317,837**
Deferred tax income shown in the income statement	-25,275	-17,936
Changes in deferred taxes recognized in other comprehensive income	-2,589	-2,856
Other changes (e.g. changes arising from foreign currency translation)	-205	200
Net amount of deferred tax liabilities as of December 31	**269,176**	**297,245**

Other comprehensive income contains deferred tax income on the remeasurement of defined benefit plans of EUR 2,472k (prior year: EUR 2,969k) and deferred tax income on gain/loss arising from cash-flow hedges in the amount of EUR 117k (prior year: deferred tax expense in the amount of EUR 208k).

Unused losses and interest carryforwards

Unused losses and interest carryforwards break down as follows:

	December 31, 2020 kEUR	December 31, 2019 kEUR
Interest carryforwards	81,568	83,551
on which no deferred tax assets are recognized	*81,568*	*83,551*
Foreign unused losses	513	551
on which no deferred tax assets are recognized	*320*	*357*
Total unused losses	678	941
on which no deferred tax assets are recognized	*320*	*747*

Deferred tax assets were recognized on unused tax losses in the amount of EUR 358k (December 31, 2019: EUR 194k).

Foreign unused losses, for which deferred tax assets have been capitalized, result from unused losses made by the group company in Spain of EUR 193k (December 31, 2019: EUR 194k). The tax loss carryforwards in Spain do not expire.

Temporary differences in connection with shares in subsidiaries in the amount of EUR 2,412k (prior year: EUR 1,974k) are not subject to deferred tax liabilities, because the Group is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

3.9 Government grants

In the context of the coronavirus pandemic, the following government grants (mainly social security contributions) were received in 2020 and recognized with a cost-reducing effect in the following functional areas:

	2020 kEUR
Cost of sales	847
Selling costs	113
Research and development costs	56
General administrative costs	57
	1,073

3.10 Additional information on the type of expenses

Cost of materials

In the financial year, cost of materials amounted to EUR 119,438k (prior year: EUR 135,013k). Cost of materials is mainly contained in cost of sales.

Personnel expenses

Personnel expenses break down as follows:

	2020 kEUR	2019 kEUR
Wages and salaries	152,397	162,660
Social security contributions	29,272	31,764
Pension expenses	7,106	6,581
Total	**188,775**	**201,005**

Personnel expenses are contained in cost of sales, selling, research and development, as well as general administrative costs.

Employees

On average, the Group employed 3,410 people in the financial year (prior year: 3,589). These break down as follows:

	2020 Headcount (average)	2019 Headcount (average)
Salaried employees	1,307	1,360
Wage earners	2,103	2,229
Total	**3,410**	**3,589**

Amortization and depreciation

Amortization, depreciation and impairment break down as follows:

	2020 kEUR	2019 kEUR
Amortization of intangible assets	65,669	65,235
Depreciation of property, plant and equipment	41,239	41,915
Impairment of goodwill and intangible assets	137,065	335,209
Impairment of property, plant and equipment	186	4,807
Total	**244,159**	**447,166**

4 Notes to the Consolidated Statement of Financial Position

4.1 Goodwill and intangible assets

Goodwill and intangible assets break down as follows:

	Goodwill	Other intangible assets: Trade-marks	Technolog y	Customer relation-ships	Other	Total
	kEUR	kEUR	kEUR	kEUR	kEUR	kEUR
Cost						
January 1, 2019	**1,341,431**	**59,000**	**335,777**	**761,800**	**37,167**	**2,535,175**
Additions	0	0	0	0	3,027	3,027
Disposals	0	0	0	0	-33,524	-33,524
Reclassifications	0	0	0	0	56	56
Exchange differences	0	0	498	0	18	516
December 31, 2019	**1,341,431**	**59,000**	**336,275**	**761,800**	**6,744**	**2,505,250**
Additions	0	0	0	0	3,935	3,935
Disposals	0	0	0	0	-44	-44
Exchange differences	0	0	-501	0	-26	-527
December 31, 2020	**1,341,431**	**59,000**	**335,774**	**761,800**	**10,609**	**2,508,614**
Amortization/ impairment						
January 1, 2019	**0**	**0**	**15,566**	**38,187**	**34,317**	**88,070**
Additions to amortization	0	0	18,189	45,823	1,223	65,235
Additions to impairment	329,753	5,456	0	0	0	335,209
Disposals	0	0	0	0	-33,524	-33,524
Exchange differences	0	0	39	1	9	49
December 31, 2019	**329,753**	**5,456**	**33,794**	**84,011**	**2,025**	**455,039**
Additions to amortization	0	0	18,189	45,824	1,656	65,669
Additions to impairment	137,065	0	0	0	0	137,065
Disposals	0	0	0	0	-44	-44
Exchange differences	0	0	-61	-120	-19	-200
December 31, 2020	**466,818**	**5,456**	**51,921**	**129,715**	**3,618**	**657,529**
Net carrying amounts						
December 31, 2020	**874,613**	**53,544**	**283,852**	**632,085**	**6,991**	**1,851,086**
December 31, 2019	**1,011,678**	**53,544**	**302,481**	**677,789**	**4,719**	**2,050,211**

Goodwill results from the acquisition of CeramTec Holding and its subsidiaries in 2018 (see note 1.2). Goodwill was allocated to the groups of cash-generating units (CGUs) Medical Products (EUR 874,613k), and Industrial (EUR 466,818k).

The CGU Medical Products includes the business activities designed to develop, manufacture and supply technical high-performance ceramics products used for medical technology, and the CGU Industrial includes the business activities designed to develop, manufacture and supply technical high-performance ceramics products used in the electronics and automotive industries, and for mechanical engineering.

For the cash-generating units, the impairment test was performed as of November 30, 2020. The recoverable amount was calculated based on the asset's value in use. Value in use is calculated by discounting the future cash flow surpluses. The measurement is therefore allocable to level 3 pursuant to IFRS 13. The projected future cash inflows are based on the approved financial budgets, which are undertaken by the CeramTec TopCo Group and, as a rule, have a three-year planning horizon. For this purpose, assumptions are made in particular about future selling prices, quantities and costs.

The financial budgets are prepared on the basis of historical experience, and reflect the management's expectations for the following years.

Different benchmark companies were considered for the peer group of the CGU Medical Products and the CGU Industrial.

The growth rate of the perpetuity was assumed to be 1.00% (prior year: 1.00%). The weighted average cost of capital for the CGU Medical Products is 9.31% (prior year: 9.21%) before tax and 6.92% (prior year: 6.89%) after tax. The weighted average cost of capital for the CGU Industrial is 13.19% (prior year: 13.69%) before tax and 9.63% (prior year: 10.38%) after tax. Equity costs were calculated using a base interest rate of -0.10% (prior year: 0.17%) each and a market risk premium of 7.75% (prior year: 7.50%) each.

Due mainly to the decline in revenue and earnings expectations caused by the coronavirus pandemic, the impairment test performed during the year as of June 30, 2020 for the CGU Industrial resulted in the need to recognize impairment losses totaling EUR 137,065k, as the carrying amount exceeded the assets' value in use. Goodwill of the CGU Industrial has since been completely written down and accordingly has a carrying amount of EUR 0k as of December 31, 2020. The planning for the year 2021 is based on revenue of EUR 328,400k and an average moderate annual increase in revenues and EBITDA in the detail planning period.

According to our assessment, reasonably possible changes in significant basic assumptions (weighted average cost of capital, EBITDA margin) underlying the determination of value in use would not result in an excess of the carrying amount of the CGU Medical Products and the CGU Industrial over its value in use.

As of March 8, 2018, the CeramTec, BIOLOX, SPK and DAI Ceramics trademarks were identified within the scope of the purchase price allocation. The carrying amount of the above trademarks was EUR 53,544k as of December 31, 2020 (December 31, 2019: EUR 53,544k). As the recognized trademarks do not represent a product-specific trademark and do not have identifiable useful lives, the useful life for the recognized trademarks was classified as indefinite. Upon acquisition, the trademarks were allocated to the cash-generating units Medical Products (EUR 33,200k) and Industrial (EUR 25,800k). The impairment test with regard to the trademarks of the CGU Industrial did not result in any need to recognize impairment losses (prior year: EUR 5,456k).

Technology has a carrying amount of EUR 283,852k (December 31, 2019: EUR 302,481k) and primarily contains the basic technology underlying high-performance ceramics. This has an average weighted remaining useful life of 15.2 years (December 31, 2019: 16.2 years).

Customer relationships have a carrying amount of EUR 632,085k (December 31, 2019: EUR 677,789k) and primarily contain customer relationships from the Medical Products business. These have an average weighted remaining useful life of 14.1 years (December 31, 2019: 15.1 years).

Scheduled amortization of other intangible assets is recognized under cost of sales, selling expenses, research and development costs and general administrative costs, while impairment losses are recognized under other income and expenses (-), net.

4.2 Property, plant and equipment

Property, plant and equipment break down as follows:

	Land and buildings	Technical plant and machinery	Other equipment	Right-of-use assets	Assets under construction	**Total**
	kEUR	kEUR	kEUR	kEUR	kEUR	kEUR
Cost						
January 1, 2019	**107,830**	**190,794**	**8,674**	**0**	**15,418**	**322,716**
Additions	1,145	17,837	2,778	1,762	18,847	42,368
Additions from initial recognition	0	0	0	4,852	0	4,852
Disposals	-313	-3,542	-692	0	-41	-4,588
Reclassifications	886	10,345	426	0	-11,714	-56
Exchange differences	367	1,148	73	27	52	1,668
December 31, 2019	**109,915**	**216,582**	**11,259**	**6,641**	**22,562**	**366,960**
Additions	972	10,011	2,790	2,761	19,007	35,541
Disposals	-588	-2,417	-596	-2,111	-3	-5,716
Reclassifications	800	10,882	469	-106	-12,151	-106
Exchange differences	-1,215	-3,271	-291	-136	-185	-5,098
December 31, 2020	**109,884**	**231,788**	**13,630**	**7,049**	**29,230**	**391,581**
Depreciation/impairment						
January 1, 2019	**5,774**	**25,576**	**2,372**	**0**	**0**	**33,722**
Additions to depreciation	7,425	28,721	3,233	2,536	0	41,915
Additions to impairment	0	4,756	51	0	0	4,807
Disposals	-90	-2,445	-659	0	0	-3,194
Exchange differences	22	268	28	5	0	324
December 31, 2019	**13,131**	**56,876**	**5,025**	**2,542**	**0**	**77,573**
Additions to depreciation	7,456	27,932	3,267	2,584	0	41,239
Additions to impairment	0	99	0	0	87	186
Disposals	-8	-1,638	-570	-2,074	0	-4,290
Reclassifications	79	0	1	-187	0	-106
Exchange differences	-228	-1,299	-152	-31	0	-1,709
December 31, 2020	**20,430**	**81,970**	**7,570**	**2,834**	**87**	**112,891**
Net carrying amounts						
December 31, 2020	**89,453**	**149,817**	**6,060**	**4,215**	**29,143**	**278,689**
December 31, 2019	**96,784**	**159,707**	**6,234**	**4,099**	**22,562**	**289,387**

Scheduled depreciation of property, plant and equipment is recognized under cost of sales, selling costs, research and development costs and general administrative costs, while impairment losses are reported as other income and expenses.

In the financial year, borrowing costs of EUR 656k (prior year: EUR 422k) were capitalized in property, plant and equipment applying an unchanged interest rate of 5.80%.

There were contractual commitments to acquire property, plant and equipment in the amount of EUR 12,286k as of the reporting date (December 31, 2019: EUR 21,161k).

Property, plant and equipment under IAS 17 (finance leases) contain rented buildings capitalized in previous years with a net carrying amount of EUR 1,123k (December 31, 2019: EUR 1,208k), and furniture and fixtures with a net carrying amount of EUR 2k (December 31, 2019: EUR 3k).

4.3 Other financial assets

The breakdown of other financial assets is shown in the following table:

	December 31, 2020 kEUR	December 31, 2019 kEUR
Other non-current financial assets		
Separated termination rights	10,221	25,139
Insurance claims	40	45
Minority shareholding without controlling interest	4	0
Sundry financial assets	10	59
Total	**10,275**	**25,243**
Other current financial assets		
Receivables arising from amounts retained by the factor as a security	1,850	1,792
Derivative financial instruments	314	717
Sundry financial assets	1,098	565
Total	**3,262**	**3,074**

The CeramTec TopCo 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 4.15.

Due to the default risk being classified as low, no impairment was recognized in relation to other financial assets in the reporting period.

4.4 Other assets

The breakdown of other assets is shown in the following table:

	December 31, 2020 kEUR	December 31, 2019 kEUR
Other non-current assets		
Deferred finance costs for the revolving credit line	478	697
Sundry assets	3,600	410
Total	**4,078**	**1,107**
Other current assets		
Prepaid insurance	2,017	2,454
Receivables from energy tax refunds	1,809	989
VAT receivables	2,024	2,383
Deferred finance costs for the revolving credit line	219	219
Sundry assets	2,234	1,981
Total	**8,303**	**8,026**

Otherassets mainly include advance payments.

4.5 Inventories

Inventories break down as follows:

	December 31, 2020 kEUR	December 31, 2019 kEUR
Raw materials	35,331	38,267
Work in progress	28,018	29,233
Finished goods	25,237	25,209
Merchandise	1,656	2,971
Other inventories	1,323	1,413
Total	**91,565**	**97,093**

Other inventories include packaging materials and spare parts for machinery.

At the reporting date, the write-down of inventories amounts to EUR 15,994k (December 31, 2019: EUR 14,636k). The expense resulting from the increase of EUR 1,358k in the write-down is reported in cost of sales.

4.6 Trade receivables

As of the reporting date, trade receivables were recognized to the amount of EUR 51,880k (December 31, 2019: EUR 52,740k) after taking into account valuation allowances of EUR 495k (December 31, 2019: EUR 760k).

As part of the factoring agreement concluded in 2017, receivables of EUR 13,599k were sold as of the reporting date (December 31, 2019: EUR 14,422k). Under the terms of the agreement, EUR 1,850k was retained by the factor as of the reporting date as a security (December 31, 2019: EUR 1,792k), and is recognized in other current financial assets (see note 4.3).

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

	December 31, 2020 kEUR	December 31, 2019 kEUR
Carrying amount before impairment losses	**52,375**	**53,500**
thereof not yet due on the reporting date	40,066	41,248
thereof past due on the reporting date	12,309	12,252
past due up to 30 days	8,140	10,001
past due up to 60 days	3,286	896
past due up to 90 days	343	181
past due more than 90 days	540	1,174

The age structure of the impairment losses as of the reporting date breaks down as follows:

	December 31, 2020 EUR	December 31, 2019 EUR
not yet due	2	0
past due up to 30 days	144	22
past due up to 60 days	0	55
past due up to 90 days	19	47
past due more than 90 days	330	636
Total	**495**	**760**

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

	December 31, 2020 kEUR	December 31, 2019 kEUR
past due up to 30 days	7,991	9,969
past due up to 60 days	3,286	817
past due up to 90 days	324	112
past due more than 90 days	199	247
Total	**11,800**	**11,145**

Loss allowances are based on information about a customer developed internally or obtained from external sources, and an estimate of the likelihood of default. The loss allowances mainly include specific loss allowances for receivables due from customers who have entered into bankruptcy proceedings or who are facing severe financial difficulties.

Default risks in the majority of trade receivables (usually between 75% and 80%) of CeramTec GmbH, Plochingen/Germany, the largest company that engages in operating activities, are covered by using credit insurance. After taking credit insurance into account, the maximum default risk on trade receivables of CeramTec TopCo Group comes to around 51% of the carrying amount as of the balance sheet date (December 31, 2019: 48%).

Based on the CeramTec TopCo Group's historical credit loss experience and customer structure, the Group is expected to sustain a small loss in the event of default, taking into account future-oriented macroeconomic information and existing insurance that protects the Group against loss on receivables. The resulting impairment loss on trade receivables is of minor importance.

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. On average, the Group has recognized loss allowances of around 40% in relation to all receivables past due more than 60 days.

The following table shows the development of loss allowances on trade receivables during the past reporting period. Additional general risks of non-payment are considered remote.

Loss allowances	2020 kEUR	2019 kEUR
As of January 1	**760**	**530**
Addition	195	591
Utilization	-40	-226
Reversal	-385	-75
Foreign currency translation	-35	-61
As of December 31	**495**	**760**

4.7 Cash and cash equivalents

The "Cash and cash equivalents" line item contains bank balances of EUR 244,113k (December 31, 2019: EUR 64,373k) and cash in hand of EUR 5k (December 31, 2019: EUR 7k).

4.8 Equity

Subscribed capital

The fully paid in capital stock of the parent company CeramTec TopCo amounts to EUR 25k (December 31, 2019: EUR 25k).

Capital reserve

Effective as of December 31, 2019, a nominal amount of EUR 247,929k of the existing shareholder loan and the interest payable in the amount of EUR 32,025k were contributed to the capital reserve.

The capital reserve is freely available and not subject to any earmarking.

Retained earnings and net profit/loss for the period

The "Retained earnings and net profit/loss for the period" line item contains the current profits/losses incurred by the CeramTec TopCo Group and those incurred in previous years. This also includes the change in the revaluation reserve for pension obligations (after tax) in the amount of EUR -6,166k (December 31, 2019: EUR -7,417k).

Accumulated other comprehensive income

Accumulated other comprehensive income relates to foreign currency translation adjustments and differences from the market valuation of financial assets and liabilities including deferred tax effects.

4.9 Provisions for pension obligations

Within the CeramTec TopCo Group, there are defined benefit and defined 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 based, as a rule, on the length of 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 that depend on the remuneration and length of service and are subject to a cap. These commitments do not contain any rights to inflation-related pension adjustments. These defined benefit plans were closed for employees that joined after January 1, 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 January 1, 2002. For the management of the German CeramTec TopCo group companies, there are direct commitments in place comprising benefits that depend on the remuneration and length of service and are subject to a cap 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.

Furthermore, since the end of 2014, the Company has committed itself to directly providing benefits as compensation to employees who have been enrolled into Hoechster Pensionskasse, which was subject to the realignment of pension funds that 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 sponsoring institution managed by employer and employee representatives. The representatives are legally obligated to represent the interests of the entitled employees and are responsible for the investment decisions and managing the assets. 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:

	December 31, 2020 kEUR	December 31, 2019 kEUR
Germany	120,622	109,504
UK	3,489	3,698
Other	239	231
Total	**124,350**	**113,433**

The following table shows the extent of the obligation and the amount of plan assets as well as the provisions and other assets disclosed in the consolidated statement of financial position as of December 31, 2020.

		2020	
Change in benefit obligations	German plans kEUR	Foreign plans kEUR	Total kEUR
Benefit obligations at the beginning of the financial year	**109,504**	**12,702**	**122,206**
Service cost	4,146	20	4,166
Interest expense	974	241	1,215
Remeasurements	8,363	983	9,346
from the change in demographic assumptions	*0*	*46*	*46*
from the change in financial assumptions	*9,748*	*937*	*10,685*
Experience adjustments	*-1,385*	*0*	*-1,385*
Foreign currency translation	0	-702	-702
Benefits paid	-2,365	-443	-2,808
Benefit obligations at the end of the year	**120,622**	**12,801**	**133,423**
Change in plan assets			
Market value of plan assets at the beginning of the financial year	**0**	**8,773**	**8,773**
Interest income from plan assets	0	165	165
Expense for managing the plans	0	-89	-89
Employer contributions	0	448	448
Remeasurements	0	701	701
from the change in financial assumptions	*0*	*701*	*701*
Foreign currency translation	0	-492	-492
Benefits paid	0	-433	-433
Market value of plan assets at the end of the year	**0**	**9,073**	**9,073**
Net obligation amount / provisions for benefits	**120,622**	**3,728**	**124,350**

The change in financial assumptions primarily results from the declined interest rate.

The following table shows the extent of the obligation and the amount of plan assets as well as the provisions disclosed in the consolidated statement of financial position for the comparable period as of December 31, 2019.

<u>**Change in benefit obligations**</u>	German plans kEUR	Foreign plans kEUR	Total kEUR
Benefit obligations at the beginning of the financial year	**96,430**	**10,826**	**107,256**
Service cost	3,497	23	3,520
Interest expense	1,809	301	2,110
Remeasurements	10,121	1,229	11,350
from the change in demographic assumptions	*0*	*-108*	*-108*
from the change in financial assumptions	*9,734*	*1,337*	*11,071*
Experience adjustments	*387*	*0*	*387*
Foreign currency translation	0	666	666
Benefits paid	-2,353	-343	-2,696
Benefit obligations at the end of the year	**109,504**	**12,702**	**122,206**
<u>**Change in plan assets**</u>			
Market value of plan assets at the beginning of the financial year	**0**	**7,056**	**7,056**
Interest income from plan assets	0	203	203
Expense for managing the plans	0	-93	-93
Employer contributions	0	527	527
Remeasurements	0	964	964
from the change in financial assumptions	*0*	*964*	*964*
Foreign currency translation	0	457	457
Benefits paid	0	-341	-341
Market value of plan assets at the end of the year	**0**	**8,773**	**8,773**
Net obligation amount / provisions for benefits	**109,504**	**3,929**	**113,433**

The calculation of the pension obligations was based on the following assumptions as of December 31, 2020:

	Germany	Abroad
Interest rate (in %)	0.50	1.40
Wage and salary trends (in %)	2.50	N/A
Pension trend (in %)	1.50	2.60 - 3.00
Life expectancy	2018 G Guideline Tables	Mortality Tables

The calculation of the pension obligations was based on the following assumptions as of December 31, 2019:

	Germany	Abroad
Interest rate (in %)	0.90	2.00
Wage and salary trends (in %)	3.00	N/A
Pension trend (in %)	1.50	3.00 - 3.20
Life expectancy	2018 G Guideline Tables	Mortality Tables

The average term of the benefit obligations amounts to 22.7 years in Germany (prior year: 22.2 years) and 16.0 years abroad (prior year: 16.0 years).

The employer contributions and benefit payments expected to be paid into the plans during the next financial year amount to EUR 450k (prior year: EUR 476k) and EUR 2,994k (prior year: EUR 2,694k) respectively.

The risk from changes in actuarial assumptions underlying the measurement of the 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 the respective assumptions as of the reporting date. The change in key actuarial assumptions would have the following effects (in kEUR) on the present value of pension obligations:

	Change	Effect December 31, 2020
Discount rate	- 0.50 percentage points	15,895
	+ 0.50 percentage points	-13,540
Wage and salary trends	- 0.50 percentage points	-492
	+ 0.50 percentage points	514
Pension trend	- 0.50 percentage points	-14,368
	+ 0.50 percentage points	15,965
Life expectancy	+ 1 year	6,004

The change in key actuarial assumptions would have had the following impact (in kEUR) on the present value of pension obligations for the prior year:

	Change	Effect December 31, 2019
Discount rate	- 0.50 percentage points	14,082
	+ 0.50 percentage points	-12,032
Wage and salary trends	- 0.50 percentage points	-433
	+ 0.50 percentage points	452
Pension trend	- 0.50 percentage points	-13,581
	+ 0.50 percentage points	15,059
Life expectancy	+ 1 year	5,448

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

	December 31, 2020 kEUR	December 31, 2019 kEUR
Securities/shares	4,456	4,260
Equity funds and other funds	2,468	2,086
Fixed-interest securities	1,405	1,584
Real estate	744	843
	9,073	**8,773**

The fair values of the securities and shares were determined based on prices quoted on active markets, while the fair values of real estate are 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 January 1, 2002 to December 31, 2014, all new hires at CeramTec GmbH, CeramTec Service and Emil Müller GmbH were members of 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 Pensionskasse der Mitarbeiter der Hoechst-Gruppe VVaG. These pension funds are multi-employer plans which are generally 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 TopCo 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 TopCo Group can under certain circumstances be used to finance another entity's employee benefits.

Dynamit Nobel VVaG is funded for commitments made before December 1, 2007 with income-based contributions by the entitled employees as well as variable employer contributions. The employers' contribution must, together with the member contributions and return on plan assets from the pension fund, sufficiently fund the agreed benefit 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 given as from December 1, 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 are at present 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. Negative budget variances, for example due to the pension fund earning an insufficient return on assets, may result in the CeramTec TopCo 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 or Emil Müller GmbH in 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 Pensionskasse der Mitarbeiter der 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 benefit 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 TopCo Group in the total number of members for active employees, non-contributory employees and pensioners ranges between around 0.1% and 0.15% in each case.

As of December 1, 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 Hoechster Pensionskasse VVaG. Since January 1, 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 Hoechster Pensionskasse VVaG. The employees and employer make a fixed, income-based contribution to Hoechster 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, which may be to their disadvantage.

The contributions made to the pension funds amounted to EUR 2,413k in the financial year (prior year: EUR 2,558k). The expenses are recorded in cost of sales, selling expenses, research and development costs as well as general administrative costs. Planned contributions of EUR 2,426k are expected to be made in 2021 (prior year: EUR 2,451k).

The expenses for additional defined contribution plans related to the employer's share of contributions to the German state pension insurance scheme, and amounted to EUR 11,827k (prior year: EUR 11,754k).

4.10 Provisions

The development of provisions in the financial year was as follows:

	Balance as of December 31, 2019 kEUR	Addition kEUR	Utilization kEUR	Reversal kEUR	Reclassification kEUR	Exchange difference kEUR	Balance as of December 31, 2020 kEUR
Provisions for employee bonuses	12,098	9,272	10,177	1,707	101	-294	9,293
Provisions for warranties	3,170	2,120	950	895	0	0	3,445
Provisions for environmental risks	272	85	18	6	0	-18	315
Provisions for long-service awards	923	212	390	0	0	0	745
Provision for solvency requirements	2,834	60	1,884	3	0	-1	1,006
Provisions for litigation risks	1,077	190	346	370	0	-8	543
Provisions for taxes	4,424	4,000	4,425	0	0	-70	3,929
Sundry provisions	2,898	1,339	622	189	-101	-114	3,211
	27,696	**17,278**	**18,812**	**3,170**	**0**	**-505**	**22,487**

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

A provision was recognized for the solvency plan for the pension fund Dynamit Nobel 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.

Sundry 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:

	December 31, 2020 kEUR	December 31, 2019 kEUR
Current provisions	19,726	22,190
Non-current provisions	2,761	5,506
Total	**22,487**	**27,696**

The non-current provisions mainly relate to long-service awards and solvency obligations as well as environmental risks.

The cash outflow of current provisions takes place within one year.

4.11 Financial liabilities to affiliates

Financial liabilities to affiliates comprise a loan payable to CTEC Acquisition S.à.r.l., Luxembourg, in the amount of EUR 273,835k (December 31, 2019: EUR 311,503k) with a term until December 31, 2028.

	December 31, 2020 kEUR	December 31, 2019 kEUR
Non-current financial liabilities		
Loan payable	273,523	256,270
	273,523	**256,270**
Current financial liabilities		
Loan payable	0	19,599
Accrued interest	312	35,634
	312	**55,233**
Total	**273,835**	**311,503**

Effective as of December 31, 2019, a nominal amount of EUR 247,929k of the existing shareholder loan and the interest payable in the amount of EUR 32,025k were contributed to the capital reserve.

The amount reported as current of EUR 312k (prior year: EUR 55,233k) was paid to the shareholder in January of the subsequent year in each case.

4.12 Financial liabilities to third parties

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

	December 31, 2020 kEUR	December 31, 2019 kEUR
Non-current financial liabilities		
Liabilities to banks	1,156,680	999,334
Liabilities from the bond	414,293	415,740
Derivative financial instruments	22,489	15,179
Lease liabilities	3,636	3,071
Total	**1,597,098**	**1,433,324**
Current financial liabilities		
Derivative financial instruments	8,256	5,743
Liabilities from the bond	7,993	7,993
Discounts and bonuses	3,065	4,139
Lease liabilities	1,759	2,355
Liabilities to banks	141	2,672
Sundry current financial liabilities	2,759	2,504
Total	**23,973**	**25,406**

Within liabilities to banks, the funds raised under the EUR tranche were increased by a nominal amount of EUR 175,000k effective as of December 15, 2020, resulting in a total volume of EUR 1,069,000k from the EUR tranche. Furthermore, there are two USD tranches with a nominal volume of EUR 121,326k. The tranches have variable interest rates and mature on March 8, 2025. Transaction costs of EUR 33,641k associated with the loan are spread over the term of the loan using the effective interest method.

In 2019, voluntary repayments were made in relation to the syndicated loan of EUR 44,000k on the EUR tranche and EUR 9,872k on two USD tranches.

The bond has a fixed interest rate and a nominal volume of EUR 406,000k (December 31, 2019: nominal volume of EUR 406,000k). It is due to mature on December 15, 2025. The CeramTec TopCo Group has a termination option for this bond, which is recognized as a separate financial asset (note 4.3). Associated transaction costs of EUR 13,570k 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 4.15.

Lease liabilities are composed of right-of-use assets capitalized in accordance with IFRS 16 (see note 4.14) in the amount of EUR 4,309k and finance leases recognized in previous years in accordance with IFRS 17 in the amount of EUR 1,086k.

4.13 Other liabilities

Other liabilities break down as follows:

	December 31, 2020 kEUR	December 31, 2019 kEUR
Other non-current liabilities		
Contractual liabilities under contracts with customers	3,763	0
Total	**3,763**	**0**
Other current liabilities		
Wages and salaries including taxes	10,696	12,208
Contractual liabilities under contracts with customers	3,935	907
Real estate transfer tax	1,023	1,023
Sundry current liabilities	5,943	2,599
Total	**21,597**	**16,737**

The contractual liabilities from contracts with customers reported as non-current will be recognized in income in 2022, while those reported as current will be recognized in income in 2021. All contractual liabilities under contracts with customers of the prior year were recognized as revenue in the current financial year.

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

4.14 Accounting for leases (IFRS 16)

In accordance with IFRS 16 the lessee is required to recognize a right-of-use asset (or "RoU asset") and a corresponding lease liability for all leases. At the commencement date, the amount of the RoU asset corresponds to the amount of the lease liability. In the subsequent periods, the RoU asset is (apart from some exceptions) measured at its cost less any accumulated depreciation and impairment losses and adjusted for any remeasurement of the lease liability. The CeramTec TopCo Group primarily leases various office and warehouse buildings as well as vehicles.

The right-of-use assets can be related to the asset category of property, plant and equipment as follows:

	Land and buildings	Technical plant and machinery	Other equipment	**Total**
	kEUR	kEUR	kEUR	kEUR
Cost				
January 1, 2019	**0**	**0**	**0**	**0**
Initial adoption of IFRS 16 as of January 1, 2019	2,434	172	2,246	4,852
Additions	138	29	1,595	1,762
Exchange differences	25	1	1	27
December 31, 2019	**2,597**	**202**	**3,842**	**6,641**
Additions	1,100	220	1,441	2,761
Disposals	-202	-362	-1,546	-2,111
Reclassifications	-106	0	0	-106
Exchange differences	-105	-3	-28	-136
December 31, 2020	**3,284**	**57**	**3,708**	**7,049**
Depreciation/impairment				
January 1, 2019	**0**	**0**	**0**	**0**
Additions to depreciation	686	185	1,665	2,536
Exchange differences	4	0	1	5
December 31, 2019	**690**	**185**	**1,666**	**2,542**
Additions to depreciation	733	213	1,638	2,584
Disposals	-177	-362	-1,534	-2,074
Reclassifications	-187	0	0	-187
Exchange differences	13	-5	-39	-31
December 31, 2020	**1,072**	**31**	**1,731**	**2,834**
Net carrying amounts				
December 31, 2020	**2,212**	**26**	**1,977**	**4,215**
December 31, 2019	**1,907**	**17**	**2,175**	**4,099**

At the commencement date, the lease liability is measured at the present value of the lease payments that are paid over the lease term. Subsequently, the carrying amount of the lease liability is adjusted for interest using the discount rate and reduced in the amount of the lease payments made. Modifications to the lease payments result in a remeasurement of the lease liability.

The following table shows the undiscounted cash flows for the lease liabilities existing as of the reporting date pursuant to IFRS 16:

	December 31, 2020						
	Carrying amount kEUR	2021 kEUR	2022 kEUR	2023 kEUR	2024 kEUR	2025 kEUR	>2025 kEUR
Lease liabilities (IFRS 16)	4,309	1,824	1,155	634	419	153	419

The effect of IFRS 16 on the consolidated statement of comprehensive income is as follows:

	2020 kEUR	2019 kEUR
Depreciation of right-of-use-assets	2,584	2,536
Interest expense associated with unwinding of discount on lease liabilities	227	243
Total	**2,811**	**2,779**

In the financial year, expenses related to short-term leases, leases of low-value assets as well as software leases are included in the consolidated statement of comprehensive income at EUR 981k (prior year: EUR 900k).

The total cash outflows for leases, which are not recognized - as in the past - in accordance with IAS 17, amount to EUR 3,867k in the financial year (prior year: EUR 3,576k).

4.15 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 IFRS 9.

	Measurement category of IFRS 9[1]	December 31, 2020 Carrying amount kEUR	Fair value kEUR
Financial assets			
Trade receivables	AC	51,880	51,880
Separated termination rights	FVtPL	10,221	10,221
Cash and cash equivalents	AC	244,118	244,118
Forward exchange transactions	FVtPL	314	314
Other financial assets	AC	3,001	3,001
Total		**309,534**	**309,534**
Financial liabilities			
Liabilities to banks	AC	1,156,821	1,190,326
Bond liabilities	AC	422,286	421,702
Liabilities to affiliates	AC	273,835	275,595
Trade payables	AC	29,034	29,034
Separated interest rate floors	FVtPL	26,079	26,079
Lease liabilities	AC	5,395	5,395
Interest rate cap	FVtPL	4,665	4,665
Other financial liabilities	AC	5,825	5,825
Total		**1,923,940**	**1,958,621**

[1] AC: measured at amortized cost using the effective interest method; FVtPL: measured at fair value through profit or loss

	Measurement category of IFRS 9[1]	December 31, 2019 Carrying amount kEUR	Fair value kEUR
Financial assets			
Trade receivables	AC	52,740	52,740
Separated termination rights	FVtPL	25,139	25,139
Cash and cash equivalents	AC	64,380	64,380
Forward exchange transactions	FVtPL	717	717
Other financial assets	AC	2,461	2,461
Total		**145,437**	**145,437**
Financial liabilities			
Liabilities to banks	AC	1,002,006	1,027,167
Liabilities to affiliates	AC	311,503	314,158
Bond liabilities	AC	423,733	448,597
Trade payables	AC	30,277	30,277
Separated interest rate floors	FVtPL	15,272	15,272
Interest rate cap	FVtPL	5,650	5,650
Lease liabilities	AC	5,425	5,425
Other financial liabilities	AC	6,644	6,644
Total		**1,800,510**	**1,853,190**

[1] AC: measured at amortized cost using the effective interest method; FVtOCI: measured at fair value through other comprehensive income; FVtPL: measured at fair value through profit or loss

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

	December 31, 2020		
	Level 1 kEUR	Level 2 kEUR	Level 3 kEUR
Financial assets			
Separated termination rights	0	10,221	0
Forward exchange transactions	0	314	0
Financial liabilities			
Separated interest rate floors	0	26,079	0
Interest rate cap	0	4,665	0

	December 31, 2019		
	Level 1 kEUR	Level 2 kEUR	Level 3 kEUR
Financial assets			
Separated termination rights	0	25,139	0
Forward exchange transactions	0	717	0
Financial liabilities			
Separated interest rate floors	0	15,272	0
Interest rate cap	0	5,650	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 values of financial instruments when their carrying amounts are a reasonable approximation of the fair values, such as current trade receivables and payables.

	December 31, 2020		
	Level 1 kEUR	Level 2 kEUR	Level 3 kEUR
Financial liabilities			
Bond liabilities	0	421,702	0
Liabilities to banks	0	1,190,326	0
Liabilities to affiliates	0	0	275,595
Lease liabilities	0	5,395	0

	December 31, 2019		
	Level 1 kEUR	Level 2 kEUR	Level 3 kEUR
Financial liabilities			
Bond liabilities	0	448,597	0
Liabilities to banks	0	1,027,167	0
Liabilities to affiliates	0	0	314,158
Lease liabilities	0	5,425	0

The fair value of the bond corresponds to the nominal value multiplied by the market value as of the reporting date, plus the separated termination right. Accordingly, the fair value measurement is allocated to level 2 in 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 was also 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 intensity (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 in 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 intensity (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 in 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 are observable for the assets and liabilities, either directly or indirectly, at the market. Accordingly, these financial instruments were allocated to level 2 in the fair value hierarchy.

For assets and liabilities that are recognized at fair value on a recurring basis, the CeramTec TopCo 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 fair value measurement as a whole). There were no transfers between level 1 and 2 during the 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 IFRS 9:

	December 31, 2020			
	Change in fair value	Currency translation	Impairment loss	Total
	kEUR	kEUR	kEUR	kEUR
Financial assets				
Trade receivables	0	293	189	482
Cash and cash equivalents	0	-1,156	0	-1,156
Separated termination rights - FVtPL	-14,917	0	0	-14,917
	-14,917	-863	189	-15,591
Financial liabilities				
Interest rate floors - FVtPL	-7,793	0	0	-7,793
	-7,793	0	0	-7,793
Total	**-22,710**	**-863**	**189**	**-23,384**

	December 31, 2019			
	Change in fair value	Currency translation	Impairment loss	Total
	kEUR	kEUR	kEUR	kEUR
Financial assets				
Trade receivables	0	-504	-516	-1,020
Cash and cash equivalents	0	-163	0	-163
Separated termination rights - FVtPL	4,151	0	0	4,151
	4,151	-667	-516	2,967
Financial liabilities				
Interest rate floors - FVtPL	-5,425	0	0	-5,425
	-5,425	0	0	-5,425
Total	**-1,274**	**-667**	**-516**	**-2,458**

Net gains from the changes in the 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.

	2020 kEUR	2019 kEUR
Total interest expense	74,905	96,277
Total interest income	1,573	1,582

No finance fees, which are not part of the effective interest method, were expensed in profit or loss in the reporting period and in the prior year.

Derivative financial instruments

The following table shows the fair value and nominal value of derivative financial instruments as of December 31, 2020:

	December 31, 2020 Nominal value kEUR	 Fair value kEUR
Derivatives with a positive fair value		
Separated termination rights	406,000	10,221
Forward exchange transactions	21,253	314
Derivatives with a negative fair value		
Separated interest rate floors	1,069,000	-26,079
Interest rate cap	970,712	-4,665
Total	**2,466,965**	**-20,210**

	December 31, 2019 Nominal value kEUR	 Fair value kEUR
Derivatives with a positive fair value		
Separated termination rights	406,000	25,139
Forward exchange transactions	20,075	717
Derivatives with a negative fair value		
Separated interest rate floors	894,000	-15,272
Interest rate cap	980,248	-5,650
Total	**2,300,323**	**4,934**

Embedded derivatives

As described in note 4.12, the CeramTec TopCo Group took out a syndicated loan with one EUR and two USD tranches with a syndicate of banks in March 2018. These loans include embedded interest rate floors, which oblige the CeramTec TopCo Group to pay a minimum interest rate that exceeds the variable interest rate. Furthermore, the bond issued in December 2017 contains various agreements that entitle the CeramTec TopCo 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 IFRS 9 and subsequently recognized as stand-alone derivatives at fair value through profit or loss.

5 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. The bank balances are not subject to drawing restrictions.

Effective as of December 15, 2020, the funds raised under the EUR tranche were increased by a nominal amount of EUR 175,000k.

In 2019, voluntary repayments were made in relation to the syndicated loan of EUR 44,000k on the EUR tranche and EUR 9,872k on two USD tranches.

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

During the financial year, the Group made cash payments for investments in property, plant and equipment in the amount of EUR 6,712k which have already been added to property, plant and equipment in the previous period. At the same time, additions to property, plant and equipment in the financial year amounted to EUR 5,164k that will affect cash only during the following accounting period.

Non-cash investing activities relate exclusively to the addition of right-of-use assets.

In the financial year, liabilities arising from financing activities developed as follows:

	Liabilities to banks	Liabilities from the bond	Liabilities from shareholder loans	Derivative financial instruments	Lease liabilities	Total
	kEUR	kEUR	kEUR	kEUR	kEUR	kEUR
Balance as of December 31, 2019	1,002,006	423,733	311,503	20,922	5,426	1,763,590
Change in cash flow from financing activities						
Cash receipts	168,161	0	0	0	0	168,161
Cash payments	0	0	-19,599	0	-2,886	-22,485
Interest payments	-29,911	-21,315	-37,200	-2,405	0	-90,831
	138,250	**-21,315**	**-56,799**	**-2,405**	**-2,886**	**54,845**
Interest expenses	34,870	19,868	19,131	209	227	74,305
Currency translation effect	-7,181	0	0	-59	-133	-7,373
Fair value changes	0	0	0	12,078	2,761	14,839
Effects from the increase in the syndicated loan not affecting profit or loss	-11,124	0	0	0	0	-11,124
	16,565	**19,868**	**19,131**	**12,228**	**2,855**	**-70,647**
Balance as of December 31, 2020	**1,156,821**	**422,286**	**273,835**	**30,745**	**5,395**	**1,889,082**

In the prior year, liabilities arising from financing activities developed as follows:

	Liabilities to banks	Liabilities from the bond	Liabilities from shareholder loans	Derivative financial instruments	Lease liabilities	Total
	kEUR	kEUR	kEUR	kEUR	kEUR	kEUR
Balance as of December 31, 2018	1,048,961	419,884	552,688	17,760	1,256	2,040,550
Change in cash flow from financing activities						
Cash receipts	0	5,163	0	0	0	5,163
Cash payments	-53,872	0	0	0	-2,676	-56,548
Interest payments	-30,833	-21,315	0	-2,417	0	-54,565
	-84,705	**-16,152**	**0**	**-2,417**	**-2,676**	**-105,950**
Interest expenses	36,592	19,682	38,769	0	243	95,285
Currency translation effect	1,158	0	0	-76	-10	1,072
Fair value changes	0	0	0	5,680	1,765	7,445
Additions from initial recognition according to IFRS 16	0	0	0	0	4,848	4,848
Conversion into equity	0	0	-279,954	0	0	-279,954
Other changes	0	319	0	-25	0	294
	37,750	**20,001**	**-241,185**	**5,579**	**6,846**	**-171,009**
Balance as of December 31, 2019	**1,002,006**	**423,733**	**311,503**	**20,922**	**5,426**	**1,763,590**

The interest expenses relating to liabilities from the bond in the current financial year include income of EUR 1,447k (prior year EUR 1,380k) associated with discounting of financial liabilities that arose because the effective interest method was applied.

6 Other Notes

6.1 Management of financial risks

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

The CeramTec TopCo Group operates on the basis of an appropriate framework to manage financial risks, which is an integral part of ongoing business operations and ongoing financing activities. Taking these risk management objectives into consideration, risks are identified, assessed and managed on an ongoing basis. In some cases, the CeramTec TopCo Group enters into 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 due to changes in market prices. Market risk particularly comprises 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 TopCo Group is exposed in particular to foreign currency risks arising from changes in the USD/EUR exchange rate.

The following sensitivity analysis in terms of the foreign currency risk was prepared based on the assumption that the portion of financial instruments in foreign currency will remain constant. The table shows the effects on net profit/loss for the period and 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 TopCo group companies' main foreign currency items.

	December 31, 2020						
	Change in the spot rate %	USD	GBP	CZK	PLN	CNY	**Total**
Effect on net profit/loss before tax in kEUR	+10%	7,046	79	26	-130	-674	**6,347**
	-10%	-8,612	-97	-32	159	824	**-7,757**

	December 31, 2019						
	Change in the spot rate %	USD	GBP	CZK	PLN	CNY	**Total**
Effect on net profit/loss before tax in kEUR	+10%	9,878	-54	59	-96	-677	**9,110**
	-10%	-12,073	66	-72	117	828	**-11,134**

Forward exchange transactions have been concluded until the end of 2021 to cover the monthly demand for local national currency of two subsidiaries:

	December 31, 2020	
	Total kEUR	Residual term of up to 1 year kEUR
Nominal value	21,253	21,253
Fair value	314	314
Average rate		
GBP / EUR	0.9064	
USD / GBP	1.3613	
CZK / EUR	26.3018	

	December 31, 2019	
	Total kEUR	Residual term of up to 1 year kEUR
Nominal value	20,075	20,075
Fair value	717	717
Average rate		
GBP / EUR	0.8583	
USD / GBP	1.3185	
CZK / EUR	25.7398	

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 TopCo 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 may lead to a change in fair value. However, this risk does not impact the net profit/loss for the period or group equity, as the bond is carried at amortized cost and changes in fair value are not recognized.

CeramTec TopCo group companies entered into agreements governing interest rate caps until May 31, 2022 and until May 31,2024 respectively, in the form of two successive EUR interest rate caps in the amount of EUR 873,000k each, linked to 3-month EURIBOR, and two successive USD interest rate caps of USD 120,000k and USD 149,000k respectively, linked to 3-month LIBOR. The interest rate caps limit the maximum variable interest rates to 0.75% or 0.25% (EURIBOR) and to 2.75% or 1.25% (LIBOR).

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

	December 31, 2020			
	Increase/ decrease in basis points	Effect on loan interest rates kEUR	Effect on derivatives kEUR	Total effect on interest expense kEUR
EURO	+100	10,838	-32,280	-21,441
	-100	-10,838	49,985	39,147
US dollar	+100	1,230	-1,806	-575
	-100	-1,230	0	-1,230

December 31, 2019				
	Increase/ decrease in basis points	Effect on loan interest rates kEUR	Effect on derivatives kEUR	Total effect on interest expense kEUR
EURO	+100	9,039	-20,390	-11,351
	-100	-9,039	44,635	35,595
US dollar	+100	1,346	-616	730
	-100	-1,346	40	-1,307

If the interest rate increases, the increase in the loan interest rate will be more than compensated for mainly as a result of the lower valuation of the negative derivative from the interest rate floor.

Collateral

CeramTec AcquiCo, CeramTec BidCo LLC (hereinafter "US BidCo") and CeramTec GmbH are borrowers of the syndicated loan. In connection with the syndicated loan, certain assets of CeramTec BondCo, CeramTec AcquiCo, CeramTec Holding, CeramTec Group, CeramTec GmbH, US BidCo, CeramTec Acquisition LLC and CeramTec North America LLC (hereinafter "CeramTec NA") were provided as collateral. In the USA, (i) the shares in US BidCo, CeramTec Acqusition LLC and in CeramTec NA, (ii) all additional assets of US BidCo, CeramTec Acquisition LLC and CeramTec NA (including receivables, intellectual property and bank accounts) and (iii) CeramTec GmbH's intellectual property registered in the USA, were provided as collateral. In Germany, (i) the shares in CeramTec AcquiCo, CeramTec Holding, CeramTec Group and CeramTec GmbH, (ii) receivables of CeramTec BondCo (intercompany receivables only), CeramTec AcquiCo (intercompany receivables and receivables relating to acquisition agreements only), CeramTec Holding (insurance, intercompany and hedging receivables), CeramTec Group (insurance, intercompany and hedging receivables) and CeramTec GmbH (insurance, intercompany, hedging and trade receivables, (iii) bank accounts of CeramTec BondCo, CeramTec AcquiCo, CeramTec Holding, CeramTec Group and CeramTec GmbH and (iv) the intellectual property of CeramTec GmbH, were provided as collateral for the syndicated loan, or encumbered.

The financial assets falling under the above collateral in accordance with IFRS 9 (see note 4.15) are stated on the balance sheet as of December 31, 2020 to an amount of EUR 264,377k (December 31, 2019: EUR 93,627k).

Risk from compliance with financial covenants

Compliance with financial covenants was agreed to in connection with obtaining the syndicated loan. Accordingly, the CeramTec TopCo Group must comply with a covenant provided that the revolving credit line of EUR 67,000k is utilized to an extent as specified in the loan agreement. As the amount drawn down at the end of the fiscal year remained below the threshold specified, the Company was not required to review compliance with this financial covenant. In addition, an analysis must be undertaken by the end of the financial year to determine whether the volume of the collateral used to secure the syndicated loan does not fall below a certain threshold. If so, additional collateral would have to be provided. At the end of the current financial year, the collateral value did not fall below the threshold. The management expects that the Company will continue to comply with the financial covenants in the following financial year.

Liquidity risk

Liquidity risk is the risk that the CeramTec TopCo group companies will not be able to fulfill their financial obligations when they fall due. The objective of the management of the CeramTec TopCo 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 TopCo group companies had an undrawn and confirmed credit line of EUR 75,000k as of the reporting date consisting of a revolving credit line of EUR 67,000k and another short-term credit line for the overdraft facility of EUR 8,000k. Furthermore, the CeramTec group companies had cash and cash equivalents of EUR 244,118k.

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 rate 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.

				December 31, 2020			
	Carrying amount kEUR	2021 kEUR	2022 kEUR	2023 kEUR	2024 kEUR	2025 kEUR	>2025 kEUR
Trade payables	29,034	29,034	0	0	0	0	0
Liabilities to banks	1,156,821	28,531	30,695	30,690	30,823	1,196,256	0
Bond liabilities	422,286	21,315	21,315	21,315	21,315	434,420	0
Liabilities to affiliates	273,835	312	0	0	0	0	484,437
Lease liabilities	5,395	1,948	1,229	737	522	256	1,185
Other financial liabilities	5,825	5,825	0	0	0	0	0
Derivatives with a negative fair value							
Interest rate cap	4,665	2,372	2,135	1,017	72	0	0

	December 31, 2019						
	Carrying amount kEUR	2020 kEUR	2021 kEUR	2022 kEUR	2023 kEUR	2024 kEUR	>2024 kEUR
Trade payables	30,277	30,277	0	0	0	0	0
Liabilities to banks	1,002,007	29,073	28,423	28,406	28,329	28,352	1,034,760
Bond liabilities	423,734	21,315	21,315	21,315	21,315	21,315	434,420
Liabilities to affiliates	311,503	56,799	0	0	0	0	484,989
Lease liabilities	5,425	1,883	1,197	648	516	397	1,301
Other financial liabilities	6,644	6,644	0	0	0	0	0
Derivatives with a negative fair value							
Interest rate cap	5,650	2,460	2,460	1,230	0	0	0

Default risk

Credit risk is the risk that a counterparty will not meet its obligations under financial instruments, leading to a financial loss on the part of the creditor. At the CeramTec TopCo Group, the credit risk is primarily associated with trade receivables, cash and cash equivalents and other receivables.

Trade receivables exist in respect of numerous customers in various sectors and regions. Default risks related to 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 amounts to 51% 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 TopCo group companies are exposed to losses from credit risks if counterparties do not meet their obligations. The resulting risk position is managed by diversifying the counterparties. For example, cash is only invested at banks with excellent credit ratings. There is no cash past due or impaired as of the reporting date. The maximum default risk for cash and cash equivalents corresponds to the carrying amount.

The CeramTec TopCo Group considers this default risk to be immaterial as of the reporting date.

The termination option separated from the bond and recognized as other financial asset 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 TopCo Group, without giving rise to any actual cash receivable from the banks.

Trade receivables

A loss allowance of EUR 495k was recognized for lifetime expected credit losses on trade receivables (in accordance with the simplified approach set out in IFRS 9). The net receivables portfolio amounts to EUR 51,880k after deducting the loss allowance from the gross receivables portfolio of EUR 52,375k. The gross receivables portfolio of receivables that are more than 30 days past due amounts to EUR 4,170k. The net receivables portfolio amounts to EUR 3,675k (level 3) after deducting the loss allowance of EUR 495k.

The loss allowance the Group is required to recognize is not determined based on external credit ratings. The expected credit losses are estimated by reference to factors that are specific to a debtor and information about the debtor's financial position. In addition, past default experience of the debtor is also taken into account in the assessment. It is allocated to level 3 of IFRS 9.

Non-payment risks are not expected to be associated with all other financial assets, including separated termination rights or the amount retained by a factor as a security for any bad debts that may arise.

Capital management

The objective of capital management in the consolidated group is securing liquidity to make investments that increase the value of the organization. Therefore, the focus is on optimizing cash flows from operating activities. Equity recognized on the balance sheet amounts to EUR 180,957k (December 31, 2019: EUR 338,468k). Liabilities of EUR 2,366,247k (December 31, 2019: EUR 2,256,793k) were recognized as of the reporting date. The equity ratio stands at 7.1% (prior year: 13.0%).

6.2 Contingent liabilities

The entities within the consolidated group 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 form provisions for such obligations if it is probable that a liability has been incurred and the amount of the potential claim can be sufficiently estimated. Where the possibility of an outflow in settlement is not unlikely, such obligations are disclosed in the notes to the financial statements.

6.3 Related party disclosures

Key management personnel

Key management personnel are those persons having direct or indirect authority and responsibility for the planning, management and monitoring of the activities of the CeramTec TopCo Group.

In the financial year, the key management personnel of CeramTec TopCo Group consisted of the following persons:

Dr. Hadi Saleh
Chief Executive Officer

Richard Boulter
President Industrial

Eric Oellerer
Chief Financial Officer

Dr. Hadi Saleh is the sole general manager of CeramTec TopCo GmbH.

The members of management in key positions received total remuneration (fixed and variable amounts) in the form of short-term employee benefits amounting to EUR 2,331k in the financial year (prior year: EUR 2,409k). The payments for post-employment benefits amount to EUR 588k (prior year: EUR 373k). This amount comprises the service cost for pension obligations and contributions to defined contribution plans. As has been the case in the prior year, former general managers were not granted any benefits in the financial year in the event of premature termination of management activities. Additionally, as of December 31, 2020 there are pension obligations to general managers in the amount of EUR 1,639k (prior year: EUR 1,405k) and to former general managers and their surviving dependents in the amount of EUR 4,427k (prior year: EUR 4,076k).

As part of a participation program, selected employees of the CeramTec TopCo Group were offered the option to directly acquire shares in CeramTec Management Beteiligungs GmbH & Co. KG and CeramTec Co-Investment GmbH & Co. KG. As of the reporting date, selected employees hold overall less than 10% of the shares in CeramTec TopCo GmbH indirectly. These shares were acquired at the shares' fair value at the grant date. The management participation program is intended to serve as an incentive instrument, motivating the management in view of growth and long-term business success of the CeramTec Group. For this purpose, the agreements define exit events (disposal, stock market flotation) upon the occurrence of which the entitled management will participate in any growth in value of the CeramTec Group in the same relation as the investors. In this case, depending on the respective exit event, the management has the right or the duty to sell their own shares. In the event that the employment contract of an employee who holds shares in the Company is terminated before the occurrence of an exit event, this employee is obliged to offer his or her shares in CeramTec Management Beteiligungs GmbH & Co. KG for purchase to the Lead B.C. Investor or a third party determined by the Lead B.C. Investor. The amount of the purchase price for the management's interest varies between the fair market value of the shares and the contribution made, depending on the reason and time of withdrawal.

In accordance with IFRS 2, the granting of shares from the Participation and Shareholders' Agreements is treated as settled by equity instruments. As, under the purchase, the managers pay the fair value of the shares, the fair value of the allocated shares, when settled by equity instruments, is zero. For this reason, provided that the assessment in respect of the occurrence of a payment obligation does not change, an expense does not, at any time, need to be disclosed (neither in the case of an exit nor upon withdrawal of a manager).

Information about the remuneration of the management of CT TopCo according to Section 314 (1) No. 6 HGB is not provided.

CeramTec GmbH has a supervisory board in accordance with the articles of incorporation. The total remuneration of the supervisory board in the financial year 2020 amounted to EUR 148k (prior year: EUR 162k).

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 273,835k (December 31, 2019: EUR 311,503k), including interest, with a fixed interest rate of 7.3 % p.a. has been obtained from CeramTec TopCo's controlling shareholder, CTEC Acquisition S.à.r.l., Luxembourg. Interest expenses of EUR 19,131k were incurred in the financial year 2020. Unpaid interest is generally added annually to the Company's loan balance on December 31.

Potential transactions with portfolio companies of BC Partners are settled at market conditions.

6.4 Auditor's fees

The total auditor's fees for the CeramTec TopCo Group, recognized in profit or loss in the consolidated statement of comprehensive income, break down as follows:

	December 31, 2020 kEUR	December 31, 2019 kEUR
Auditing services	416	425
Other services	10	12
	426	**437**

6.5 Events after the reporting period

With effect as of January 04, 2021, Dentalpoint AG, a company based in Spreitenbach, Switzerland, was acquired. With this acquisition, the CeramTec Group Invest in the high growth market for ceramic dental implants and continues to expand the offering in the Medical Products segment. The preliminary purchase price of EUR 50,975k was paid using cash and cash equivalents. Deviations from the preliminary purchase price will arise due to the purchase price mechanisms agreed upon. Due to the proximity of the transaction to the date of approval of the annual financial statements, there are not yet any results of the currently ongoing purchase price determination and allocation in accordance with IFRS 3. For the purchase price allocation, which is generally based on the fair values of the assets acquired and liabilities assumed, the recognition of intangible assets such as technologies, customer relationships and brands as well as goodwill is expected.

7 Reconciliation to CeramTec BondCo GmbH

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

- Lower general administrative expenses of EUR 173k (prior year: EUR 16k)
- Lower interest expenses of EUR 260k (prior year: EUR 7k)
- Lower tax expense of EUR 127k (prior year: EUR 0k)

The total comprehensive income of CeramTec BondCo would therefore have been EUR 560k higher compared to the total comprehensive income recognized in these financial statements (prior year: EUR 23k).

If the consolidated statement of financial position of CeramTec BondCo had been prepared instead of the consolidated statement of financial position of CeramTec TopCo, which is presented in these financial statements, this would have resulted in the following adjustments as of December 31, 2020:

- Higher receivables from affiliates of EUR 684k (December 31, 2019: EUR 261k)
- Lower deferred tax assets of EUR 24k (December 31, 2019: EUR 0k)
- Lower liquid funds of EUR 10k (December 31, 2019: EUR 10k)
- Lower capital reserve of EUR 25k (December 31, 2019: EUR 25k)
- Lower trade payables of EUR 35k (December 31, 2019: EUR 0k)
- Lower tax liabilities of EUR 150k (December 31, 2019: EUR 0k)
- Lower financial liabilities to third parties of EUR 91k (December 31, 2019: EUR 114k).
- This would have resulted in a EUR 926k higher level of group equity for CeramTec BondCo compared to the group equity recognized in these financial statements (December 31, 2019: EUR 365k).

The impact on the consolidated statement of cash flows would have been EUR -10k if the consolidated statement of cash flows of CeramTec BondCo had been prepared instead of the consolidated statement of cash flows presented in these financial statements.

Plochingen, April 14, 2021

CeramTec TopCo GmbH

The Management

Dr. Hadi Saleh

SUSTAINABILITY

CeramTec's Management Policy
The Mission of the Ceramic Experts

The CeramTec Group aims to achieve profitable, global growth while conserving energy and protecting natural resources. Our objective is to strengthen and advance CeramTec's international leadership position. As a customer-oriented problem solver, we therefore focus on application consulting and on the development of innovative, competitive, and sustainable processes for realizing products consistent with specifications.

We have established a framework with reliable, risk-minimizing technical and organizational processes and creating an atmosphere of trust that fairly balances the interests of customers, business partners, employees and shareholders, as well as stakeholders such as the local communities and society in general. We conduct business according to a set of clearly defined management principles, which we review on an annual basis. The executive board of the CeramTec Group is committed to promoting compliance with these policies, to providing the resources that are required for implementation, and to conducting an annual review. For this, it will give an annual account (status analysis) regarding compliance with these management policies and will review the efficacy of the management systems once a year. As part of this process, special focus will be placed on considering specially-approved requirements and binding obligations of our customers, of society/the public, of the government agencies, of external interested parties, and of legislative bodies, as well as on constantly improving our management system and minimizing risks in our processes.

Products – We strive to manufacture and market our high-quality products in the most cost-effective, sustainable, safe and eco-friendly way while conserving resources, taking into account the lifecycle of our products.

Interested parties – All of our efforts center around satisfying the requirements of all of our interested parties.

Responsibility – When it comes to our products, operations and services, we act with a strong commitment to safety, health, the environment, and profitability. We comply with all applicable standards, laws, regulations, in-house rules and designated ethical principles as well as other obligations with regard to the context of the organization. Fair and ethical business practices apply both with respect to our employees and our business partners – from procurement and manufacturing through to delivery to our customers, all while considering the effects on society.

Quality – We plan, develop, implement, monitor and continuously improve all of our processes. We give reasonable consideration to the opportunities/risks of these processes. This applies to quality, work safety, health, environmental protection and energy management.

Values – Our thinking, actions and behavior are based on mutual convictions of what is good and what is important. These are reflected in our corporate values Teamwork, Open & positive mindset, Passion, Learn and grow, Customer focus, Accountability and Integrity. They serve as guiding principles on how we do our jobs, how we act and work together.

Goals – We set goals for ourselves for profitability, quality, safety, health and environmental protection based on these management policies while considering our strategic context and the most important requirements for our relevant, interested parties. We are also committed to long-term reductions in energy consumption and increasing our energy efficiency through continuous process improvement (CPI). We make information and resources available to meet these targets and constantly measure our level of success using key metrics to foster the growth of our business.

Employees – Having capable and responsible employees is important to us. We train our employees in ongoing courses focused on quality, work safety, health, environmental protection, codes of conduct and energy efficiency. We recognize successful performance of our employees and encourage them to excel. Every employee is responsible for doing his or her part to meet our quality, work safety, health, environmental protection and resource conservation targets.

Sustainability – For CeramTec, sustainability is a holistic concept for the future. In accordance with our corporate social responsibility policy and our code of conduct, we assume responsibility for our thoughts and our actions in economical, ecological and social dimensions. We follow guidelines and regulations that apply to all employees worldwide to ensure sustainability in all of our business operations.

Corporate Social Responsibility
Our Sustainability Policy

Principles of Sustainable Corporate Responsibility
Sustainability is embedded in our corporate culture and is integral to the worldwide CeramTec Group. Our CSR Policy supports our aim to achieve profitable, global growth, conserving energy and protecting natural resources, while acting in an ethical way with integrity, as outlined in our Management Policy. Sustainable development means taking responsibility for the impact our thoughts and actions have in the financial, environmental and social dimensions that affect our natural resources, our employees, our customers, society, financial markets, business partners and neighboring communities.

Financial Responsibility: For Sustainable Business Development
We aim to achieve sustained, profitable growth for continued successful business development characterized by responsible business practices and integrity.

Environmental Responsibility: For Sustainable Environmental Development

CeramTec is committed to making the world a greener place by keeping our ecological footprint as small as possible. We understand that ecological sustainability is a key component of our corporate social responsibility and strive to keep our own impact on the environment to a minimum by conducting environmentally-friendly, professional and safe operations. This includes conserving scarce resources such as raw materials, energy and water as well as avoiding and reducing CO_2 emissions and waste.

Our fair, ethical and environmentally-friendly approach incorporates everything from the management of our company, the manufacturing of our products to the procurement of resources and even our investments in buildings and facilities.

Social Responsibility: For Sustainable Social Development

We are dedicated to improving society by operating our business in a responsible manner and always acting with integrity in all areas: as an employer, business partner and "good neighbor" and key member of the local community at all of our company's sites. For CeramTec, taking responsibility for the people we have direct relationships with is a matter of principle. We are aware that our actions affect more than just the people we deal with directly – we also have a broader impact on society in general. This is why we strive to be a responsible and prudent business partner who follows sound ethical and moral principles, acts in accordance with the law and lives up to high standards for social responsibility by applying specific rules and guidelines.

Corporate Governance: Acting with Integrity

CeramTec's Executive Board and Supervisory Board consistently implement the principles of responsible corporate governance. These primarily comprise a compliance management system, an internal control system, and risk management. All are managed, monitored and reviewed in regular audits.

Sustainable Materials: For Quality of Life and Profitability

Developing products made from advanced ceramics reflects our sense of responsibility when it comes to the future. We create sustainable solutions that are used worldwide in countless industries and fields of application. They improve quality of life, increase efficiency, enhance productivity, save energy and protect the environment – while supporting our customers in reaching their own sustainability targets.

Put Responsibility into Practice

We consistently implement our basic principles of sustainable, responsible business management. Our efforts clearly pay off by conserving energy and protecting the environment and our natural resources. This is reflected in our social commitment for people in the community and our employees, in our training programs, equal opportunities, development and growth and health and safety.

The primary goal of our DIN ISO 14001-certified environmental management system is to promote environmental protection and prevent environmental pollution in line with financial, social and political requirements. Our energy management system, which is certified according to DIN ISO EN 50001, takes every aspect of the company into account – from processes, methods and materials to products, buildings and facilities – to increase energy efficiency and sustainably reduce energy consumption.
Our achievements are clearly visible in our key performance indicators. And we will continue to strengthen this commitment in the future.

Key Figures	Unit	2017	2018	2019	2020
Employees					
Total emloyees [1]	Persons	3,537	3,589	3,525	3,420
of which male [1]	Persons	2,165	2,230	2,221	2,154
of which female [1]	Persons	1,372	1,359	1,304	1,266
Apprenticeship rate [2]	%	7.10%	7.18%	6.00%	7.06%
Employee suggestion scheme (IDM)/ idea management [3]	Total number	3.382	3.323	3.209	2.830
Health and Safety					
Staff away sick	%	3.75%	4.22%	4.23%	3.98%
System suggestions	Total number	3,363	3,349	3,293	3,209
Lost time accidents (LTAs)	Total number	18	16	14	6
LTA frequency rate	LTAs*200,000/total hours worked	0.59	0.43	0.41	0.19
LTA severity rate	Lost days*200,000/total hours worked	5.53	5.88	7.76	2.47
Near misses (out of IDM)	Total number	489	639	685	648
Environment and Energy					
Energy consumption	MWh	292,381	301,131	295,917	272,748
Energy consumption/€1m turnover	MWh/€1m	526	502	477	493
Water consumption	m³	267,262	294,623	279,408	260,864
Water consumption/€1m turnover	m³/€1m	480	491	450	472
Waste	Tons	5,071	4,840	5,199	5,209
Waste/€1m turnover	Tons/€1m	9,1	8,1	8,4	9,4
CO_2 emissions	Tons	101,465	106,567	104,356	96,179
CO_2 emissions/€1m turnover	Tons/€1m	182	178	168	174

(1) Headcount excluding inactive employees
(2) Apprentice model only used in Germany
(3) System applied for German sites

Corporate Governance

Governance, Risk & Compliance

With its governance, risk and compliance structure (GRC), the CeramTec Group coordinates the broad range of corporate governance, enterprise risk management (ERM) and regulatory compliance requirements. The GRC service centre is responsible for assisting the Executive Board in fulfilling its organisational obligations regarding compliance, risk management and internal control. Responsibilities and interfaces have been defined for compliance, risk management and the internal control system, which should thus prevent redundancies. In addition, a comprehensive and complete profile of the risk situation and mitigation should be guaranteed. Operationally, the GRC service centre closely collaborates with the Finance, HR, Controlling and Legal departments.

Compliance

All CeramTec employees have the opportunity to submit information about possible compliance breaches within the Company anonymously and confidentially in several languages via an outside web-based reporting system. Furthermore the Code of Ethics has been further reworked and reflects newest standards and requirements.

Risk management

The risk management of the CeramTec Group comprises all activities and arrangements made to identify, assess, manage, and monitor risk. A risk is defined as the danger that events or actions might prevent CeramTec from achieving its business objectives or from successfully implementing its strategies. For all identified risks, the probability of occurrence and possible impact on achieving objectives are continually identified, assessed, appropriate action initiated and followed-up on.

Internal control system

The internal control system consists of technological and organizational arrangements and controls that have been systematically designed to ensure compliance with guidelines and to prevent loss or damage that may be caused by the company's employees or by third parties. Controls can be performed both process-dependent or independently of the process. CeramTec's internal control system (ICS) represents the arrangements and controls ensuring the effectiveness and economic efficiency of business operations, as well as regularity and reliability of internal and external accounting, and compliance with statutory regulations relevant to the company.

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THE CERAMIC EXPERTS