MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS FOR THE HISTORICAL FINANCIAL DATA AS OF AND FOR THE TWELVE MONTH PERIODS ENDED DECEMBER 31, 2015 AND 2016

As of September 1, 2013 CeramTec Holding GmbH obtained control of the advanced ceramics business consisting of CeramTec GmbH and its subsidiaries, CeramTec North America Corporation, PST Press + Sintertechnik Sp.z o.o. and Press and Sinter Technics de Mexico, S.A. de C.V. (CeramTec Holding Group).

The purpose of this MD&A is to show the development of the financial results of the operating advanced ceramics business for the twelve month period ended December 31, 2016 in comparison to the twelve month period ended December 31, 2015.

The financial data as of and for the twelve month periods ended December 31, 2016 and December 31, 2015 respectively have been derived from the audited consolidated financial statements of the CeramTec Holding Group.

The following discussion should be read in conjunction with the information contained in our audited consolidated financial statements for the twelve month period ended December 31, 2016 including the notes thereto which have been separately provided to you.

Due to rounding differences, figures in tables and cross-references may differ slightly from the actual figures (units of currency, percentages, etc.).

Overview

We are a leading global developer, manufacturer and supplier of high performance ceramics ("HPC"). Our products are made of advanced ceramics which are highly specialized materials with superior biological, mechanical, electrical, thermal or chemical 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. We currently offer a wide range of HPC products from hip joint prostheses components to actuators in valves for diesel and gasoline injection systems. The versatility of HPC products and wide-range of applications provides us with a highly diversified end market and customer base.

We are among the market leaders in many of the industrial niche markets that we target. Most of our main HPC competitors have either a different target market or geographical focus. Additionally, due to the large variety of our products, we are the sole supplier of certain specialized products in certain niche areas.

CeramTec has succeeded in manufacturing transparent and durable ceramics on a series-production scale and to transfer the advantages of ceramics to a transparent material.

ECONOMIC, INDUSTRY 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. As a result, while we currently generate approximately 70% of our net sales based on sales to our direct customers in Europe, we are globally more diversified due to the export focus of many of our European customers. The following table provides an overview of our net sales by geography (by invoicing address, which means Europe is overstated while other regions, mainly North America, are understated driven by sales to top customers located in Europe and distributing worldwide) in the last two years as a percentage of total net sales in the given period:

	Year Ended December 31,	
	2016	2015
	(%)	(%)
Europe (including Germany)	69.7	67.7
Thereof Germany	27.0	26.0
North America	14.8	16.7
Asia	12.4	12.5
Other regions	3.1	3.1

Development of the overall economy

According to forecasts from the Institute for the World Economy, the world economy was expected to grow moderately in the financial year 2016 by 3.1 % (2015: 3.1 %). The world economy was hence expected to grow at the slowest pace since 2009 which was a year of crisis. In 2016, the world economy's expansion was weak, but finally picked up slightly. Global economic activity, which had slowed down substantially in the winter half-year 2015/2016, increased sharply after the middle of the year. A rise in output at U.S. manufacturers and the improved economic situation across emerging countries were essential for the sharp increase in global economic activity.

Given that all in all monetary policy remains expansionary, financial policy has a greater stimulative effect, and demand in developing and emerging countries grows slightly faster, manufacturing output growth will slightly accelerate over the next two years. Thus, it is expected that world manufacturing output will continue to rise moderately in 2017 and 2018 by 3.5 % and 3.6 % respectively.

Development of the end market industries

Medical technology industry experienced moderate growth in 2016, which in 2017 is expected to continue at a similar rate, with market reverting to underlying growth fundamentals.

The global automotive industry showed slight growth in 2016. This was particularly true of US, Chinese and European car markets. VDA, the German association of the automotive industry, predicts for 2017 zero growth in passenger car sales in China and Western Europe, and sales growth of 4.8 % in the USA. Overall, the number of units sold in the global market for passenger cars will increase in 2017 by 2.0% to 83.6m, according to VDA. Because of the scandal over emissions from diesel vehicles and increased debate over fine dust pollution levels, demand shifted from diesel vehicles to petrol-powered cars, and an increased level of interest in electric vehicles was reported. A similar scenario is predicted for 2017.

The mechanical engineering industry largely remained stable. The value of manufacturing output and sales achieved by the industry were almost identical to the previous year. VDMA, the German mechanical engineering industry association, predicts subdued growth of 1.0 % for 2017. According to VDMA, China in particular is no longer set to drive economic growth in the world, as in 2016. Other countries or regions could only partly compensate for weakness in capital investment spending.

The electronics industry in the USA, in Europe and many Asian countries also profited from an increase in the level of demand experienced by the end user market. ZVEI, the German electrical and electronic manufacturers' association, predicts economic growth of around 4.0 % for 2017.

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, 2016 compared to the twelve month period ended December 31, 2015. All figures are unaudited in EURm as reported.

	Twelve Months Ended December 31,		
	2016	**2015**	**Change**
	(in € million)		*(%)*
Revenue	493.3	501.3	-1.6
Cost of sales	294.9	300.0	-1.7
Gross profit	**198.4**	**201.4**	**-1.5**
Selling costs	91.5	86.8	5.4
Research and development costs	22.8	24.2	-6.0
General administrative costs	22.2	21.1	5.1
Other income and expenses (-), net	-2.2	0.5	>-100.0
Operating Income	**59.7**	**69.7**	**-14.3**
Interest income and other finance income	18.7	5.4	>100.0
Interest expenses and other finance costs	73.6	81.7	-9.9
Financial result	**-54.9**	**-76.3**	**-28.1**
Profit / Loss (-) before income tax	**4.8**	**-6.6**	**>-100.0**
Income tax expense	-10.0	-7.7	30.1
Net loss for the period	**-5.2**	**-14.3**	**-63.8**

Revenue

The following table provides an overview over our revenue for the twelve months ended December 31, 2016 compared to the respective comparative period 2015 on a business unit level. All figures are unaudited in EURm as reported.

	Twelve Months Ended December 31,		
	2016	**2015**	**Change**
	(in € million)		*(%)*
Medical Applications[1]	**185.6**	**182.7**	**1.5**
Industrial Applications[1]	**307.8**	**318.6**	**-3.4**
thereof Multifunctional Ceramics	47.4	46.1	2.9
thereof Electronic Applications	49.6	53.2	-6.8
thereof SPK Cutting Tools	38.8	39.9	-2.8
thereof Mechanical Systems	34.8	35.8	-2.6
thereof Mechanical Applications	21.3	21.8	-2.3
thereof Other	164.3	172.9	-8.6
Consolidation[2]	-48.5	-51.1	-5.1
Total revenue	**493.3**	**501.3**	**-1.6**

(1) The numbers presented for Medical Applications and Industrial Applications are external revenue to third parties.

(2) The revenue presented for the individual business units within Industrial Applications include internal revenue to Group companies. The line item "Consolidation" represents all internal revenue between the business units listed under Industrial Applications to show the amount by which the total revenue figure for Industrial Application has been reduced to account for such internal revenue. However, our management believes that revenue including internal sales for our business units in Industrial Applications provide a better description of trends in these business units due to substantial internal revenue between our business units in Industrial Applications.

Total revenue declined by -1.6% as reported (-1.1% in constant currency) from €501.3 million in 2015 to €493.3 million in 2016 but in line with our expectations.

Our revenue in Medical Applications is slightly higher by 1.5% as reported (1.5% in constant currency) from €182.7 million in 2015 to €185.6 million in 2016, increase in volume growth is more than off-setting adverse pricing effects at key customers.

Net sales in Industrial Applications decreased by -3.4% as reported (-2.7% in constant currency) from €318.6 million for 2015 to €307.8 million for 2016, due to several industrial BUs not repeating strong 2015 performance. While net sales in Industrial Applications are influenced by the development of our target markets, the effect of industrial cycle in the past has been offset by various particular developments: project activity in EO catalyst business of CT North America is lower due to reduced demands from Chinese end market customers, resulting in -12.6% lower sales vs. previous year; Electronic Applications not repeating 2015 extra volumes from a key customer; Mechanical Systems and Mechanical Applications are facing lower demand in construction and textile machinery markets. This is partly compensated by positive development in our CT-ETEC division showing good ballistic sales, CeramTec Malaysia with additional volumes in the examination segment, CeramTec Suzhou showing a strong fourth quarter and DAI due to full year effect.

The regional split of the revenue is 27.0% for Germany, 42.7% for Europe (including most of the Medical revenue to OEMs), 14.8 % for North America, 12.4 % for Asia and 3.1% for other regions. The split is mainly unchanged compared to the comparative period in 2015.

The following table shows a break-down of our net sales which we generated in the different geographical areas:

	Year Ended December 31		
	2016	2015	Change
	(in € million)		(%)
Europe (excluding Germany)	210.8	209.3	0.7
Germany	133.1	130.2	2.2
North America	73.0	83.5	-12.7
Asia	61.4	62.7	-2.1
Other regions	15.1	15.5	-2.5
Total net sales	**493.3**	**501.3**	**-1.6**

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, 2015 and 2016. All figures are unaudited in EURm as reported.

	Twelve Months Ended December 31			
	2016		2015	
	(in € million)	*(% of net sales)*	*(in € million)*	*(% of net sales)*
Cost of materials and packing	88.7	18.0	94.8	18.9
Energies	14.6	3.0	16.0	3.2
Other variable costs	3.9	0.8	6.9	1.4
Personnel expenses	113.5	23.0	108.5	21.6
Amortization and depreciation	49.9	10.1	50.4	10.1
Maintenance expenses from factory building and equipment	7.4	1.5	7.4	1.5
Other costs	16.9	3.4	16.0	3.2
Cost of sales	**294.9**	**59.8**	**300.0**	**59.8**

Cost of sales decreased by -1.7% from €300.0 million or 59.8% of revenue in 2015 to €294.9 million or 59.8% of revenue in 2016. The decrease was caused by lower volumes which were offset by additional contribution to pension fund (solvency) and severance payments (normalized in the Adjusted EBITDA). Excluding amortization and depreciation and excluding non-recurring items like additional contribution to pension fund (solvency) and severance payment our gross profit increased on a normalized basis by €2.0 million from €252.6 million to €254.7 million while the gross margin increased by 1.2%pts from 50.4% to 51.6%.

Selling Costs

Excluding amortization and depreciation and excluding all non-recurring items, both periods mainly effected by non-recurring litigation costs which are adjusted, our selling costs decreased from €49.9 million or 9.9% of revenue in 2015 to €47.4 million or 9.6% of revenue in 2016.

Research and Development Costs

Our R&D costs excluding amortization and depreciation without non-recurring items decreased to €19.9 million or 4.0% of revenue in 2016 compared with €22.4 million or 4.5% of revenue in 2015. We have increased our focus on the most attractive projects in the pipeline and continue to invest in the development of new medical products and to support growth projects such as transparent ceramics.

General Administrative Costs

Our normalized and comparable general administrative costs decreased from €16.4 million or 3.3% of revenue in 2015 to €16.3 million or 3.3% of revenue in 2016 and remain broadly unchanged in terms of % of sales.

Other Income and Expenses

Other income and expenses (net) decreased from €0.5 million income in 2015 to €-2.2 million expenses in 2016. The change of €-1.6 million results mainly from foreign exchange (€-2.0 million, mainly US-dollar) as a net gain on foreign exchange by €2.0 million in 2015 changed to a net gain on foreign exchange of €0.0 in 2016 compensated by a reduction of €0.6 million acquisition costs and €0.7 million lower restructuring cost. Both matters have been normalized in the calculation of Adjusted EBITDA.

Interest Income and Other Finance Income

This line item increased from €5.4 million in 2015 by €13.3 million to €18.7 million in 2016 due to a higher net gain resulting from the fair value measurement of derivatives.

Interest Expenses and Other Finance Costs

This line item decreased from €81.7 million for 2015 to €73.6 million for 2016 mainly due to the reduction of losses on foreign exchange differences and lower interest expenses. The financial expenses of €73.6 million include €50.7 million in interest expenses, €5.7 million expenses from the effective interest rate method, €11.9 million in non-cash interest expenses and €5.3 million exchange rate losses and other interest expenses.

Income tax expenses

Income tax expenses increased from expenses of €7.7 million for 2015 to expenses of €10.0 million in 2016 mainly due to an increase in the current taxation in line with the higher income before tax.

The following table provides an overview over the split in earnings before taxes as they relate to Germany and other countries:

	Year Ended December 31	
	2016	2015
	(in € million)	
Germany	(5.9)	(15.2)
Abroad	10.7	8.6
Total earnings before taxes	**4.8**	**(6,6)**

The effective tax rate includes the current and also the deferred tax expenses and takes into account all impacts, e.g. through non-deductible operating expenses or an amended tax assessment basis. The following table shows the reconciliation of the expected to the effective tax rate (i.e. tax expense in relation to the earnings before taxes):

	Year Ended December 31,			
	2016		2015	
	(in € million)	(%)	(in € million)	(%)
Earnings before income taxes	**(4.8)**	**100.0**	**(6.6)**	**100.0**
Expected tax expense (income)	(1.4)	28.5	(1.9)	28.5
Permanent differences	(2.1)	44.3	2.0	(31.1)
Effects resulting from interest carry forwards	(6.6)	136.6	6.3	(94.9)
Corrections in the prior years	0.2	(4.0)	0.4	(5.6)
Allowance on deferred taxes on temporary differences	(0.1)	2.5	0.8	(12.1)
Other adjustments	0.0	(0.9)	0.1	(1.1)
Tax expense and effective tax rate	**(10.0)**	**207.0**	**7.7**	**(116.3)**

Net Profit / Loss

As a result of the developments described above, our net profit increased from a net loss of €-14.3 million for 2015 to a net loss of €-5.2 million for 2016.

Financial Condition, Liquidity and Capital Resources

As of December 31, 2016, the gross financial debt, the cash balance as well as the undrawn Revolving Credit Facility were as follows (all figures are unaudited in EURm as reported):

	As of December 31, 2016
	(in € million)
Gross financial debt (without accrued transaction costs)............................	931.0
thereof bond	*306.7*
thereof term loans..	*672.8*
thereof mark-to-market measure cross-currency swaps	*-60.1*
thereof accrued interest...	*11.6*
Cash...	124.6
Net debt..	806.4
Undrawn Revolving Credit Facility...	100.0
Net Debt to LTM Adjusted EBITDA(*) ratio	4.7

(*) LTM Adjusted EBITDA January 2016 – December 2016 EUR 171.4 million

Cash Flow Statement

The following table shows the cash flow statement for the twelve month period ended December 31, 2016. All figures are unaudited in EURm as reported.

	Twelve Months ended December 31, 2016
	(in € million)
Net loss for the period	-5.2
Income tax expenses	10.0
Interest result	71.2
Amortization, depreciation and impairment charges of non-recurrent assets	86.0
Gain (-) / Loss on disposal of fixed assets	0.1
Increase / decrease (-) in provisions (excluding deferred taxes)	9.4
Income tax refund / payment (-)	-16.2
Other non-cash expenses / income (-), net	-15.1
Increase (-) / decrease in inventories	-1.8
Increase (-) / decrease in trade receivables	-0.4
Increase (-) / decrease in other receivables and (financial) assets	1.7
Increase / decrease (-) in trade payables	-0.9
Increase / decrease (-) in other (financial) liabilities	-0.7
Cash flow from operating activities	**138.0**
Cash received from disposals of property, plant and equipment	0.3
Cash paid (-) for investments in property, plant and equipment	-15.0
Cash received from grants	0.1
Cash paid (-) for investments in intangible assets	-0.7
Cash paid (-) for the acquisition of entities	0.0
Cash flow from investing activities	**-15.2**
Repayment (-) of syndicated loan	-30.1
Interest paid (-)	-54.1
Cash flow from financing activities	**-84.2**
Change in cash and cash equivalents	**38.6**
Net foreign exchange difference	-0.4
Cash and cash equivalents at the beginning of the period	86.5
Cash and cash equivalents at the end of the period	**124.6**

There was a positive change in cash and cash equivalents of €38.6 million in 2016. This was primarily the result of higher earnings supported by tight controlled investing activities and stable development of working capital.

EBITDA and Adjusted EBITDA

The following table reconciles net income to EBITDA and Adjusted EBITDA for the periods presented. All figures are unaudited in EURm as reported.

	Twelve Months Ended December 31,	
	2016	**2015**
	(in € million)	
Net profit / loss (-)	-5.2	-14.3
Income tax expenses	10.0	7.7
Financial result	54.9	76.3
Depreciation and amortization	86.0	84.6
EBITDA	**145.7**	**154.3**
Restructuring costs [a]	3.5	1.2
Other non-recurring [b]	17.0	9.8
Foreign exchange conversion effects	0.0	-2.0
Additional contribution to pension fund (solvency) [c]	5.3	-
Acquisition cost (DAI)	-	0.9
Adjusted EBITDA	**171.4**	**164.2**

(a) Restructuring costs 2015 refer to severance payments for the reduction of staff at CeramTec-ETEC GmbH and CeramTec UK. Restructuring costs in 2016 mainly comprise severance payments for the reduction of staff at CeramTec GmbH and for management changes at CeramTec Service GmbH.

(b) Includes non-recurring consulting and litigation expenses.

(c) Additional contribution to pension fund (solvency): the pension plan at "Pensionskasse Dynamit Nobel VVaG" was closed at the end of 2014 but with a continuing contractual obligation to cover potential underfunding. On July 20, 2016 the authorities (Bafin) approved the solvency plan dated June 24, 2016 in favor of the Dynamit Nobel VVaG. The provision was based on the planned payments until 2021.

CONTRACTUAL OBLIGATIONS RESULTING FROM THE FINANCING

The following table summarizes our contractual obligations resulting from the senior credit facilities as well as the notes as of December 31, 2016 including repayments and interest payments:

Contractual Obligations	Total	2017	2018	2019	2020	2021	2022	2023 and beyond
Senior Credit Facilities(1)....	753.3	28.4	29.3	27.4	668.2	0.0	0.0	0.0
Notes(2)	433.2	25.3	25.3	25.3	25.3	332.0	0.0	0.0
Total	**1,186.5**	**53.7**	**54.6**	**52.7**	**693.5**	**332.0**	**0.0**	**0.0**

(1) Payments presented in the table are calculated using the forward interest rates and forward USD/EUR rates as of December 31, 2016, assuming the minimum payments contractually obliged to. Any USD denominated loan under the Term Loan Facility will have 0.25% of initial principal amount ($472.5 million) amortization each quarter while the EUR denominated loans under the Term Loan Facility will have no interim amortization.

(2) Assumes no optional repayments.

PENSION COMMITMENTS

We provide our employees with various defined benefit and defined contribution pension plans in relation to retirement, invalidity 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 2016:

	Year ended December 31, 2016		
	German plans	Foreign plans	Total
	(in € million)		
Contractual obligation at the beginning of the year	**78.5**	**12.8**	**91.3**
Service costs	2.7	0.0	2.7
Interest expenses	1.9	0.4	2.3
Actuarial (gains)/losses (Remeasurements)	13.6	2.1	15.7
Currency Translation	0.0	(1.8)	(1.8)
Benefit payment	(2.3)	(1.1)	(3.4)
Contractual obligation at the end of the year	**94.4**	**12.4**	**106.8**
Market value of the plan assets at the beginning of the financial year	**0.0**	**5.3**	**5.3**
Expected income from plan assets	0.0	0.2	0.2
Expense for managing the plans	0.0	(0.3)	(0.3)
Employers' contributions	0.0	0.5	0.5
Actuarial (gains)/losses (Remeasurements)	0.0	0.5	0.5
Currency translation	0.0	(0.7)	(0.7)
Benefit payments	0.0	(1.0)	(1.0)
Market value of the plan assets at the end of the year	**0.0**	**4.4**	**4.4**
Net liability/provisions for pension benefits	**94.4**	**8.0**	**102.4**

The actuarial loss is primarily due to the decrease in the discount rate for the German plans (2016: 1.6%, 2015: 2.4%). The expected contributions to the defined benefit plans by the employer until 31, December 2017 will amount to €0.3 million. For the financial year 2017 benefit payments in the amount of €2.6 million are expected.

CONTINGENCIES

Group Companies are exposed to a limited number of product litigations. These processes are linked to the normal business activities and mainly relate to litigations referring to issues under commercial law, product liability law and environmental law. In this context, the Group Companies recognize provisions if such an obligation is probable and if the amount can be reliably estimated. The Group is disclosing such obligations if there is a reasonable possibility that a material expense will arise.

No litigations are currently outstanding that could have a material impact on the Group's net asset position, financial position and results of operations.

We anticipate that there are no further cases that would materially affect the Group's net assets, financial position and results of operations. We will adjust the amount of the provisions taking into account the new information, if further cases should arise.

Critical Accounting Policies and Significant Accounting Estimates

Please refer to our consolidated financial statements as of December 31, 2016 for a detailed description of the accounting policies and accounting estimates applied.

Recent Developments

On 4 January 2017, prorated debt service payments of EUR 56,538k were made to Faenza Luxembourg S.à.r.l., Luxembourg, on a granted shareholder loan which is comprised of short-term liabilities as of 31 December 2016 due to affiliated companies of EUR 56,402k plus interest of EUR 136k accrued in 2017.

On 21 February 2017, CeramTec UK Ltd. acquired the electro-ceramics business, assets and goodwill of Morgan Advanced Materials Plc. comprising two manufacturing sites in the UK for an enterprise value of 47GBPm. Closing for the transaction was April 2nd.