

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS FOR THE HISTORICAL FINANCIAL DATA AS OF AND FOR THE SIX MONTH PERIODS ENDED JUNE 30, 2016 AND 2017

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 six month period ended June 30, 2017 in comparison to the six month period ended June 30, 2016.

The financial data as of and for the six month periods ended June 30, 2017 and June 30, 2016 respectively have been derived from the unaudited interim condensed consolidated financial statements of the CeramTec Holding Group.

The following discussion should be read in conjunction with the information contained in our unaudited interim condensed consolidated financial statements for the six month period ended June 30, 2017 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"). HPC are highly specialized materials with superior biological, mechanical, electrical, thermal and bio-chemical properties compared to competing products made from metals or organic polymers. 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 piezo ceramics, catalyst carriers and transparent ceramics. The majority of our products are tailor made to customer specifications. Our success is based on a unique combination of material expertise, manufacturing know-how and the ability to support the world leading OEMs with best-in-class applications. Our top team of scientists and engineers work closely with our customers to develop tailor-made products and production processes providing unique functionality and performance. Thanks to the material and application know-how, and state-of-the-art manufacturing, we efficiently produce at scale in compliance with all relevant industry and quality standards.

Our business comprises of two units, Medical Products and Industrial.

The Medical Products business focuses on the development and manufacturing of market leading BIOLOX® ceramic hip components – the gold standard in hip implants. With over 40 years of experience and 14 million components delivered to date, BIOLOX® based implants are the unique standard in arthroplasty, trusted by medical practitioners and patients worldwide.

The Industrial business segment develops, manufactures and supplies a broad range of highly specialized, performance critical HPC components, for world leading OEMs in automotive, defence, electronics, industrial machinery, medical equipment and other markets (e.g., chemical processing and water faucet cartridges.)

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 new markets. For example, we have succeeded in manufacturing transparent and durable ceramics on a series-production scale and to transfer the advantages of ceramics to a transparent material.

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. Due to the large variety across our product offering, we are the sole supplier of certain specialized products in certain niche areas. Our sustained market position is underpinned by continuous advancements in process know-how, long-standing customer relationships and our global commercial and application expertise.

Our growth strategy is based on delivering customer driven innovations, pursuing excellence in manufacturing and commercializing our products, as well as targeted M&A to expand into attractive applications and markets, especially in Asia and North America.

Results of Operations

Net operating result adjusted for non-recurring items, depreciation, amortization, write-downs, and valuation allowances (adjusted EBITDA) amounted for the first six months of 2017 to € 107.0 million (prior year: € 88.4 million). The Adjusted EBITDA margin increased by 3.5 percentage points to reach 38.4%, compared to 34.9% in 2016. The growth in adjusted EBITDA, was mainly driven by higher volumes with limited price erosion, higher productivity from operational excellence initiatives, as well as a decrease in SG&A due to cost management. In addition, 2017 is effected by the release of a jubilee provisions contributing € 4.1 million and the contribution of €1.6 million from the acquired UK Electro Ceramics.

The following table sets forth the operational performance metrics as viewed by management, along with the percentage change for the six month period ended June 30, 2017 compared to the six month period ended June 30, 2016. All figures are unaudited in € million as reported.

	Six Months Ended June 30,		
	2017	2016	Change
	<i>(in € million)</i>		<i>(%)</i>
Revenue.....	278.2	253,4	+9.8
Cost of sales*	127.7	121.5	+5.1
Gross profit*	150.5	131.9	+14.1
Selling costs*	24.6	24.7	-0.4
Research and development costs*	9.1	10.8	-15.7
General administrative costs*	9.7	8.0	+20.4
Other income and expenses (-), net*	-0.1	0.1	-157.3
Adjusted EBITDA	107.0	88.4	+21.0
CAPEX (net).....	8.4	5.5	+52.0
Employees (FTE)	3.398	3.221	+5.5

* Financial quantity adjusted for non-recurring items, depreciation, amortization, write-downs, and valuation allowances

The Adjusted EBITDA as viewed by management can be reconciled with the financial statements as follows:

	Six Months Ended June 30,		
	2017	2016	Change
	<i>(in € million)</i>		<i>(%)</i>
Revenue.....	278.2	253,4	+9.8
Cost of sales	154.8	150.8	+2.7
Gross profit	123.4	102.7	+20.2
Selling costs.....	40.5	45.7	-11.3
Research and development costs	10.3	12.4	-17.0
General administrative costs	11.7	11.9	-1.7
Other income and expenses (-), net.....	1.4	-0.2	-718.5
Operating Income	62.3	32.5	+91.8
+ Amortization, Depreciation and impairment charges on non-current assets.....	41.2	41.9	-1.7
EBITDA	103.5	74.4	+39.1
+ Exceptional items	3.4	14.0	-75.4
Adjusted EBITDA	107.0	88.4	+21.0

The Exceptional Items of € 3.4 million for the first six months 2017 include mainly expenses for non-recurring legal fees and litigation charges (€ 0.3 million), consulting fees related to the business reorganization and acquisitions (€ 4.0 million), with balance to total made up of smaller exceptional items such as severance payments and sale of land (€ -0.9 million). In the respective comparative period of the previous year, the special items had included mainly non-recurring legal fees and litigation charges (€ 5.1 million), consulting fees (€ 1.5 million), an additional exceptional contribution to pension fund (€ 5.3 million), with the balance made up of smaller items (€ 2.1 million).

Revenue

The following table provides an overview of our revenue for the six months ended June 30, 2017 compared to the respective comparative period 2016 on individual business level. All figures are unaudited in € million as reported.

	Six Months Ended June 30,		
	2017	2016	Change
	<i>(in € million)</i>		<i>(%)</i>
Medical Products⁽¹⁾	103.7	96.2	7.8
Industrial⁽¹⁾	174.5	157.2	11.0
<i>thereof Specialty Applications⁽²⁾</i>	45.0	42.6	5.6
<i>thereof Industrial Solutions⁽²⁾</i>	72.3	68.9	5.1
<i>thereof CT North America</i>	30.4	22.3	36.5
<i>thereof Emil Müller Companies</i>	10.9	12.6	-13.5
<i>thereof other units /consolidation⁽³⁾</i>	15.8	10.9	45.6
Total revenue	278.2	253.4	9.8

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

(2) MD&A presentation has been changed compared to the prior year periods due to streamlining the Industrial business

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

Total revenue increased by +9.8% as reported (+9.7% in constant currency) from € 253.4 million in the first six months of 2016 to € 278.2 million in the first six months of 2017.

Our revenues in Medical Products has grown 7.8% yoy (likewise 7.8% in constant currency) from € 96.2 million in the first six months of 2016 to € 103.7 million in the first six months of 2017, with market fully reverted to strong underlying growth fundamentals. Volume growth is partly offset by limited contractual price reductions at some customers.

Net sales in Industrial increased by 11.0% as reported (10.9% in constant currency) from € 157.2 million in the first six months 2016 to € 174.5 million in the first six months of 2017. The growth is driven by overall strong demand across major markets, such as Textile, Automotive and strong US market conditions. It is supported by organizational streamlining, commercial excellence and the acquisition of UK Electro-Ceramics business. The decrease at Emil Müller -13.5% is mainly driven by missing volumes at a top customer in automotive.

The regional split of revenue by invoice address is 24.3% for Germany, 44.4% for Europe (including most of the Medical revenue to OEMs), 15.5% for North America, 12.7% for Asia and 3.1% for other regions. The split is mainly unchanged compared to the comparative period in 2016. Due to the export orientation of our customers, we believe that our business is more exposed to underlying demand trends in North America, Asia and other regions, than indicated by the sales split.

Cost of Sales and Gross Profit

The following table shows a break-down of our adjusted cost of sales for the six month periods ended June 30, 2016 and 2017. All figures are unaudited in € million as reported.

	Six Months Ended June 30			
	2017		2016	
	(in € million)	(% of net sales)	(in € million)	(% of net sales)
Material and packing costs(*)	50.9	18.3	45.8	18.1
Personnel expenses(*).....	58.0	20.9	55.1	21.7
Other cost of sales(*).....	18.7	6.7	20.6	8.1
Cost of sales(*).....	127.7	45.9	121.5	47.9

* Financial quantity adjusted for non-recurring items, depreciation, amortization, write-downs, and valuation allowances

Adjusted cost of sales increased by 5.1% from € 121.5 million or 47.9% of revenue in the first six months of 2016 to € 127.7 million or 45.9% of revenue in the first six months of 2017. The increase was caused by higher volumes, partly offset by operational excellence measures and the release of a jubilee provision. Gross margin increased by 2.0%pts from 52.1% in the first six months of 2016 to 54.1% in the first six months of 2017.

Selling Costs

Excluding amortization and depreciation and excluding all non-recurring items, our adjusted selling costs decreased from € 24.7 million or 9.8% of revenue in the first six months of 2016 to € 24.6 million or 8.9% of revenue in the first six months of 2017. This development is primarily linked to organizational streamlining and commercial excellence measures currently being implemented.

Research and Development Costs

Our adjusted R&D costs excluding amortization and depreciation and without non-recurring items decreased to € 9.1 million or 3.3% of revenue in the first six months of 2017 compared with € 10.8 million or 4.3% of revenue in the first six months of 2016. The decline in R&D expenses is mainly driven by the streamlining of Medical R&D and the refocusing of the organization through the Innovation Excellence initiative. The initiative has realigned resources to the most attractive, customer-driven projects in the pipeline, based on a structured opportunity management process. While we have increased our focus on the most attractive projects, we continue to invest in the development of new medical products and selected growth projects such as transparent ceramics.

General Administrative Costs

Our adjusted general administrative costs increased from € 8.0 million or 3.2% of revenue in the first six months of 2016 to € 9.7 million or 3.5% of revenue in the first six months of 2017 and remain broadly unchanged as a percentage of sales.

Other Income and Expenses

Other income and expenses (net) without non-recurring items and without foreign exchange effects from conversion decreased from € 0.1 million income in the first six months of 2016 to € -0,1 million expense in the first six months of 2017, not repeating some smaller operating income positions.

CAPEX

Net Capex for the first six months of 2017 amounted to € 8.4 million in comparison to € 5.5 million in the respective period 2016. Net Capex is expected to accelerate in HY2 due to investment phasing in line with plan. We anticipate overall Capex of € 20-25 million for FY 2017.

Employees

At the end of the period CeramTec employed a workforce of 3.398 FTEs, compared to 3.221 FTEs at the end of June, 2016. The increase is driven by the acquisition of UK Electro Ceramics business.

Result of Financing and other effects contributing to Net income

The following table lays out the result of Financing and other effects contributing to the development of Net profit for the period:

	Six Month Ended June 30,		
	2017	2016	Change
	<i>(in € million)</i>		<i>(%)</i>
Operating Income	62.3	32.5	91.8
Interest income and other finance income	40.2	0.4	>1k
Interest expenses and other finance costs	31.8	36.8	-13.6
Financial result	8.4	-36.4	NA
Profit / Loss (-) before income tax	70.7	-3.9	NA
Income tax expense	-22.8	-3.2	622.2
Net profit / Net loss (-) for the period	48.0	-7.1	NA

Interest Income and Other Finance Income

This line item increased from € 0.4 million in the first six months of 2016 by € 39.8 million to € 40.2 million in the first six months of 2017 due to a higher net gain resulting from the fair value measurement of derivatives and foreign currency effects.

Interest Expenses and Other Finance Costs

This line item decreased from € 36.8 million for the six month period ended June 30, 2016 to € 31.8 million for the six month period ended June 30, 2017 due to lower interest expenses. The financial expenses of € 31.8 million include € 23.5 million in interest expenses, € 2.9 million expenses from the effective interest rate method, € 4.1 million in non-cash interest expenses and € 1.3 million other interest expenses.

Income Tax Expenses

Income tax expenses changed from expenses of € 3.2 million for the six month period ended June 30, 2016 to expenses of € 22.8 million in the six month period ended June 30, 2017 due to increase of taxable income and higher deferred tax expenses from valuation of derivatives.

Net Profit / Loss

As a result of the developments described above, our net profit increased from a net loss of € 7.1 million for the first six months of 2016 to a net profit of € 48.0 million for the first six months of 2017.

Financial Condition, Liquidity and Capital Resources

As of June 30, 2017, the gross financial debt, the cash balance as well as the Revolving Credit Facility were as follows (all figures are unaudited in € million as reported):

	Six Month Ended June 30, 2017
	<i>(in € million)</i>
Gross financial debt (without accrued transaction costs).....	906.6
<i>thereof bond</i>	306.7
<i>thereof term loans</i>	623.4
<i>thereof revolving credit facility</i>	0.0
<i>thereof mark-to-market measure cross-currency swaps</i>	-34.9
<i>thereof accrued interest</i>	11.4
Cash.....	26.3
Net Debt.....	880.3
Undrawn Revolving Credit Facility.....	100.0
 Net Debt to LTM Adjusted EBITDA ^(*) ratio	 4.6

() LTM Adjusted EBITDA July 2016 – June 2017 € 190.0 million*

(Pro-forma LTM Adjusted EBITDA July 2016 – June 2017 € 195.6 million including LTM EBITDA for UK Electro Ceramics leading to a Net Debt Leverage Ratio of 4.5x)

Cash Flow Statement

The following table shows the cash flow statement for the six month period ended June 30, 2017. All figures are unaudited in € million, as reported:

	Six Month ended June 30, 2017
	<i>(in € million)</i>
Net profit for the period	48.0
Income tax expenses	22.8
Interest result	31.7
Amortization, depreciation and impairment charges of non-recurrent assets	41.2
Gain (-) / Loss on disposal of fixed assets.....	-3.2
Increase / decrease (-) in provisions (excluding deferred taxes).....	-7.5
Income tax refund / payment (-)	-11.3
Other non-cash expenses / income (-), net	-43.1
Increase (-) / decrease in inventories.....	-7.2
Increase (-) / decrease in trade receivables.....	-11.4
Increase (-) / decrease in other receivables and (financial) assets	-1.9
Increase / decrease (-) in trade payables	1.9
Increase / decrease (-) in other (financial) liabilities	1.9
Cash flow from operating activities	62.0
Cash received from disposals of property, plant and equipment	3.4
Cash paid (-) for investments in property, plant and equipment	-8.8
Cash received from grants.....	0.0
Cash paid (-) for investments in intangible assets	-0.4
Cash paid (-) for the acquisition of entities	-55.5
Cash flow from investing activities.....	-61.2
Repayment (-) of syndicated loan	-18.5
Interest paid (-).....	-27.7
Cash received (+) from drawing revolving credit facility.....	0.0
Repayment (-) of shareholder loan.....	-52.8
Cash flow from financing activities	-99.0
Change in cash and cash equivalents	-98.2
Net foreign exchange difference.....	-0.1
Cash and cash equivalents at the beginning of the period	124.6
Cash and cash equivalents at the end of the period	26.3

There was a negative change in cash and cash equivalents of € 98.2 million in the six month period ended June 30, 2017. This was primarily linked to the distribution of € 56.5 million made out of the group as a repayment of the shareholder loan (principal € 52.8 million and accrued interest € 3.7 million), on January 4th, 2017 and cash outflow for the acquisition of UK Electro Ceramics of € 55.5 million paid in April and June 2017, transfer of ownership effective on 3 April 2017.

Recent Developments

In July 2017, prorated debt service payments of € 48.9 million were made to Faenza Luxembourg S.à.r.l., Luxembourg, on a shareholder loan which had been granted, and comprises a current liability of € 48.7 million as of 30 June 2017 plus interest of € 0.2 million which accrued in July 2017.

In July 2017 the revolving credit line was drawn with an amount of € 35.0 million.