

## Advanced Ceramics: Key Technology of the Future

**2014 HALF YEAR REVIEW** 



# **CeramTec – Exciting Future Prospects with Advanced Ceramics**

CeramTec is one of the world's largest international manufacturers of ceramics for technically demanding applications. The company specialises in the development, production and sale of innovative products made from technical ceramics and is a driver of pioneering developments in the two segments "Medical Applications" and "Industrial Applications". CeramTec offers high-tech solutions and is a leading systems integrator for customers from the fields of medical applications, automotive engineering, electronics, energy and environment, and equipment and mechanical engineering.

#### **Growth Drivers**

- Advanced ceramics are increasingly replacing plastics and metals in high-performance applications
- Growth in global demand for medical products
- Increasing miniaturisation of electronic devices, equipment and components worldwide
- Increasing integration of electronic components and systems in automotive applications worldwide
- Growing need for innovation in energy supply and environmental engineering



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Dr. Ulf-D. Zimmermann CEO

# "The first half of the year has been marked by dynamic growth, and we are expanding our horizons for the future with innovative advanced ceramics."

Successful first half of 2014

We are pleased to inform you that business performance has been very good for the first half of 2014, with a strong first quarter. Sales and EBITDA were up again compared to the first quarter of 2013, and growth was in the double digits. Fortunately, the positive trend in the Industrial Applications segment that began in the fourth quarter of 2013 has continued. This enabled us to generate double-digit growth rates in the first quarter of 2014 compared to the same quarter in 2013 in most of our divisions that serve the Industrial Applications segment. And year-on-year growth was also solid in the second quarter of 2014. We experienced continued strong growth in the first half-year in the medical applications segment as well.

Compared to the first half of 2013, CeramTec generated significant growth overall in sales and EBITDA in the first half of 2014. This means we are still on a successful track and growing dynamically.

#### **Active expansion of market position**

We remain diligent in our efforts to expand our leading position in the market for Medical Applications and to enter into further attractive markets. We also see excellent opportunities for Industrial Applications in markets such as lighting technology, sensor technology and mobility, where we will use our innovations to exploit this potential.

As a customer-focused company that combines added value with market proximity, we will continue to expand our sales organisation and strengthen our global position by fostering customer relationships locally – for example in the fields of high-power LED lighting systems, power electronics, transparent ceramics and medicine. In addition to our existing market presence, we are forging ahead with our expansion in the US market and into emerging countries and Asian markets such as India and China.

Our research and development activities play a key role in our power to innovate – and we will continue to invest more in these efforts, especially focusing on growth projects. Our continuous flow of investments safeguards our present and future success. Our net investments for 2014 are on budget and we haven't made any changes to our forecast. This underscores our sustainable growth strategy. Given our current orders and existing contracts we expect the business climate to be favorable and business develop-

the business climate to be favorable and business development positive for the remainder of 2014, giving us a positive outlook.

#### **Heading towards the future**

With its innovative, advanced ceramics solutions, CeramTec is active in many of the fields that will be defined by the megatrends of the future over the course of the 21st century: health, miniaturisation, intelligently-networked, environmentally-friendly mobility, energy supply and environmental engineering. We are among the top three providers in most major markets, and the leader in many niche markets. We are well positioned for the future as we pursue a profitable and sustainable growth strategy.

Dr. Ulf-D. Zimmermann | CEO



# Healthy Growth in Medical Products

#### **Expansion of leading market position**

Business development in the Medical Applications segment has been extremely positive. The strong sales growth throughout 2013 continued in the first half of 2014.

We succeeded in further expanding our leading position in the growing market for hip replacement/prosthesis systems. CeramTec experienced strong growth in the United States and Asia in the Medical Applications segment.

We increased our share of the market for ceramic components, with higher demand from key accounts in the US market contributing significantly to this development.

The expansion of our Medical Products Division in connection with the expansion of our production site in Marktredwitz, Germany, is on schedule in terms of cost and timing. The official opening ceremony is planned for September. Thanks to the expansion of production capacities with state-of-the-art production lines, we are in a good position to satisfy the rising global demand for products in the medical applications market.

## CeramTec in Medical Applications: millions of successful treatments

Innovative advanced ceramics optimised for functionality, biocompatibility, reliability and cost will play an increasingly important role in the future of medical applications, implantology and dentistry. Biocompatible, low-wear and extremely durable solutions from CeramTec enable patients to receive optimal care and thus make an invaluable contribution to maintaining and enhancing the quality of life.

It would be difficult to imagine modern orthopedics without CeramTec BIOLOX® bioceramics. CeramTec components are used in every second hip implants surgery globally. Our BIOLOX® components for hip joint replacements have been implanted more than 10 million times worldwide.

The successful development of BIOLOX® ceramic components for knee and shoulder joints opens up new opportunities to expand the medical applications spectrum. Two million knee surgeries are performed every year across the globe, which is even more than the number of hip implants. And, with 160,000 shoulder operations annually, CeramTec is entering into another high-potential market that is growing by 15% every year.

Hip, knee and shoulder implants are not the only fields in which the company is expanding. CeramTec is also tapping into the global potential for solid growth in the medical devices and equipment sector and in dentistry.



# Significant Growth in the Industrial Applications segment

#### Better conditions, greater demand

CeramTec grew significantly in the Industrial Applications segment in the first half of 2014. This positive trend started in the fourth quarter of 2013 and picked up considerable speed in 2014 compared to the first half of 2013. We are confident and expect this trend to continue despite the volatile global political and economic environment.

#### **Growth drivers**

A few extraordinary developments in the business divisions were the main contributors to this growth.

CeramTec experienced double-digit growth in the SPK Cutting Tools division. Growth drivers included new product developments such as high-performance crystalline boron nitride (CBN) cutting materials and new applications for our products.

Another pleasing development was the increase in sales achieved in the Electronic Applications division. Contributing factors were both the positive business climate in this segment and the implementation of a new, application-based sales organisation with greater customer proximity.

Business development at the CeramTec subsidiary CeramTec North America was also positive, which generated double digit sales growth in the first half of 2014. This was primarily attributable to successful sales of ethylene oxide catalyst (EOC) products.

The Mechanical Applications division also contributed to the growth with products for textile industry applications. It is worth noting as well the start of production of ceramic bearing rollers at our plant in Lauf near Nuremberg, Germany.

#### CeramTec-ETEC

This growth was partially offset by CeramTec-ETEC in Lohmar, Germany. Demand for the CeramTec subsidiary's ballistic applications for armored vehicles was down due to reduced defence budgets, especially in the United States.

#### Well positioned for industrial evolutions

Our innovations in advanced ceramics make a decisive contribution to increasing the operating life, performance and safety of machines and systems in industrial applications and create entirely new technical possibilities to meet the challenges of the future.

CeramTec's PERLUCOR® technology for example makes us the first European manufacturer to produce a transparent ceramic material with tremendous mechanical strength.

We have developed hermetically sealed, waterproof piezoceramic actuators for completely new applications that were either difficult or impossible to realise until now.

And our innovative Plug & Light concept featuring Ceram-Bright modules combines perfect cooling, a translucent design and cost-optimised modular functionality for countless applications.

Our innovations for all industries cover an increasingly broad spectrum of applications and are the key to profitable growth.



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