















# OUR KNOW-HOW FOR YOUR SAFETY

Nabaltec

#### MANAGEMENT REPORT OF NABALTEC AG FOR THE FINANCIAL YEAR 2016

# 1. DESCRIPTION OF THE BUSINESS ENTERPRISE 1.1 THE COMPANY'S BUSINESS MODEL

#### **Business Operations**

Nabaltec AG develops, manufactures and distributes environmentally friendly and simultaneously highly specialized products based on mineral raw materials, in particular on the basis of aluminum hydroxide (ATH) and aluminum oxide. The Company belongs to the world's leading suppliers of functional fillers, ceramic raw material and ceramic bodies. The production capacity entails approximately 250,000 tons per annum (t.p.a.) with an export share of over 70%.

The range of applications of Nabaltec products is highly diversified:

- flame-retardant filling material for the plastics industry used e.g. for cabling in tunnels, airports, high-rises and electronic equipment
- fillers and additives, e.g. flame retardants used in the electronics industry
- ceramic raw materials applied in the refractory industry, in technical ceramics and abrasives industry
- highly specialized ceramic raw materials for ballistics, microelectronics and ceramic filters

Whenever applications require a high degree of quality, safety, environmental friendliness and product duration, Nabaltec products are always preferred. It is the combination of these important characteristics that guarantee Nabaltec products outstanding growth prospects. Particularly in the area of functional fillers, non-halogenated flame retardants, such as Nabaltec products, are increasingly replacing heavy metal containing plumbiferous, and thus environmentally hazardous, fillers. The main drivers are the globally increased environmental consciousness, comprehensive international and national regulations and the industry's self-imposed obligation. Flame protection within the plastics and cable & wire industry will continue to grow dynamically in the years to come, which is supported by recent market research results. In order to benefit from this trend disproportionately high and to gain market leadership within this segment, we have specifically expanded our production capacity for ATH-based flame-retardant fillers. Today, Nabaltec is one of the world's leading suppliers in this area.

Nabaltec has fine precipitated aluminum hydroxide production sites in the two most important demand-driven markets in Europe and USA. This permits Nabaltec to produce cost-efficiently in customer proximity and, therefore, to serve the most significant markets directly. However, production at the Corpus Christi site in the US was temporarily halted at the end of August 2016 due to the fact that the raw materials supplier, Sherwin Alumina, was compelled to discontinue operations because of a Chapter 11 bankruptcy procedure. Its customers have been supplied from Germany ever since.

Also within the business division "Technical Ceramics," Nabaltec products have excellent growth potential thanks to a wide range of applications and relevant target markets. In the ceramic raw materials segment, the market for reactive aluminum oxide is developing over proportionally well due to increasing refractory industry requirements. Markets for technical ceramics and the abrasive industry also continue showing solid growth.

Nabaltec maintains very close contacts with customers through its sales team and its technical support staff. All sales team members have specialized technical and chemical expertise, so that expert advice is guaranteed at all times. This proximity to our clients is fundamental for the concerted, client-specific design and development of our products.

#### **Corporate Structure**

Nabaltec, based in Schwandorf, was formed in 1994 and, in 1995, acquired the specialty alumina division of VAW aluminium AG. In September 2006, the Company was transformed into a stock corporation and has been listed in the Open Market (Entry Standard) segment of the Frankfurt stock exchange since November 2006. Since March 2017 they are included in the new market segment "Scale".

Nabaltec AG holds a 51% interest in Nashtec LLC (USA). Its partner, Allied Alumina LLC, holds a 49% interest (as of 31 December 2016). In the past, Nashtec LLC purchased key raw materials, particularly the aluminum hydroxide required for the production of APYRAL®, from Sherwin Alumina LLC, a wholly-owned subsidiary of Allied Alumina LLC. On 11 January 2016, Sherwin Alumina LLC filed for bankruptcy under Chapter 11 of the United States Bankruptcy Code ("Chapter 11 procedure") with the United States Federal Bankruptcy Court in Corpus Christi, Texas, USA. Sherwin Alumina has discontinued operations because of the Chapter 11 procedure and Nabaltec AG's US subsidiary Nashtec was forced to halt production at the end of August 2016. Since then, customers which had previously been supplied by Nashtec have been receiving their products from Germany. Nabaltec AG's goal is to continue to operate Nashtec based on a stand-alone solution. However, that has no effect on the qualification of Nashtec LLC as a subsidiary of Nabaltec AG.

In the first quarter of 2016, Nabaltec established a wholly-owned subsidiary, Nabaltec Asia Pacific K.K., based in Tokyo, Japan, which will market and distribute Nabaltec AG's entire portfolio of products. Nabaltec Asia Pacific K.K. is not included in Nabaltec AG's consolidated financial statements, but is instead recognized at the cost of the shares, since it is not material for Nabaltec AG's financial, earnings and liquidity position.

Nabaltec AG did not have any other participations or subsidiaries as at 31 December 2016.

Reflecting the characteristics of the target and buyers' markets, Nabaltec AG's operations are divided into two divisions, each in turn comprising of market segments and business units. In addition, the Company operates four service departments as profit and cost centers. The Company's divisions will undergo a partial reorganization in Financial Year 2017.

With the market segment "Environmental Engineering," Nabaltec concentrates on the development of new raw materials for energy storage, electro mobility and catalysis.

#### **BUSINESS DIVISIONS**

#### Functional Fillers:

- Flame Retardants
- Additives
- Environmental Technique

#### **Technical Ceramics:**

- Ceramic Raw Materials
- Ceramic Bodies

#### **SERVICE CENTERS**

- Administrative Services
- Controlling/Finance
- Technical Services
- Laboratory Services

#### 1.2 OBJECTIVES AND STRATEGIES

For the further development of the Company, Nabaltec AG focuses on the following objectives and core strategic areas:

# 1. Quality leadership and a market share among the respective top three suppliers in the target markets

Fire safety concerns within the plastics and cable & wire industry will continue growing in the years to come, which is supported by recent market research results by among others Roskill and Freedonia. Halogenated flame-retardant fillers will increasingly be replaced by non-halogenated fillers. In order to benefit from this trend disproportionately high and to gain market leadership within this segment, we have specifically expanded our production capacity for ATH-based flame-retardant fillers. Today, Nabaltec is already one of the world's leading suppliers in this area.

In the ceramic raw materials segment, the market for reactive alumina is developing over proportionally well due to increasing refractory industry quality requirements. Markets for technical ceramics and the abrasives industry also continue showing solid growth. Nabaltec responds to this growth by expanding its marketing activities.

We are already market-leader in aluminum-oxide based readily available ceramic bodies for highly specialized applications in technical ceramics, due to amongst others the state-of-theart production facility for granulated ceramic bodies in Schwandorf.

# 2. Strategic positioning within growth markets

Environmentally friendly, non-toxic and safe products and processing solutions are globally advancing forward encouraged particularly through regulatory requirements and self-imposed commitments from the industry. With an export share of around 70%, we already profit from these worldwide trends. The aim of being the one of the world's top three suppliers in our own target markets goes hand in hand with the aim of being equally well represented across all global markets.

# 3. Optimizing customer benefits by continuously improving production processes and product quality

Through our constant exchange with our customers, the Company's product and process development activities are continuously optimized and directed toward specific customer requirements. This does not only result in processing advantages for the customer, such as a simpler and faster fabrication, but rather also in cost advantages for Nabaltec, due to lower production and development costs. Therefore, Nabaltec continuously invests in its own testing facility, as well as in internal research and development departments, and the Company has been collaborating with various research institutions for years.

Optimizing processes includes efficient energy consumption as well as comprehensive environmental protection, both aspects of which represent major competitive factors. Nabaltec has taken extensive measures in order to minimize energy consumption as well as air and water pollution during operations.

# 4. Systematic expansion of our product range

Nabaltec develops its own product portfolio along three dimensions:

- through development of new products, often in close collaboration with key customers. Examples include boehmites and abrasive oxides
- through focused quality development of existent products that meet specific customer requirements
- through further development of existing products for entirely new applications

Thanks to our own testing facility, Nabaltec is optimally equipped for development activities and sample production of up to several hundred tons and for new product launches.

# 5. Flexible and quick adaption of capacities and cost structures thanks to highresolution controlling processes

Nabaltec pursues a margin oriented capacity policy. Fluctuations in demand and changes in batch size have to be taken into account as soon as possible if production processes are to remain profitable, since production processes in the specialty chemistry cannot be varied without inherent delays. Therefore, Nabaltec has developed a fast-acting and highly differentiated controlling system, so that it has at its disposal the appropriate instruments so as to align costs to a large extent with fluctuations in demand and batch size.

### 6. Securing future investments through a strong financial base

In order to take full advantage of market potential relating to both business divisions, further investments are necessary. This investment activity is at the same time a high market entry barrier for potential new suppliers. In order to ensure that the required investment capital will be available, Nabaltec relies on a financing base consisting of shareholders' equity, loans against borrower's notes and subsidies.

#### 1.3 CONTROLLING

Nabaltec AG has implemented a company-wide incentive scheme, assigning responsibilities and defining specific objectives for even for the smallest units of the Company. Comprehensive earnings, cost and performance forecasts facilitate analysis for achievement of the Company's objectives. Variance analyses are available online, indicating a need for

action at an early stage and promoting the process of agreement on targets. Comparisons of estimates against results are conducted on a monthly basis for all cost centers and cost units.

Since 1998, "Navision" ERP software has been used in all commercial departments. All cost accounting at Nabaltec, including earnings statements, have been presented based on the "macs" controlling software since 2003. Revenues, contribution margins, EBIT, ROCE, ROI, amortization terms and cash flows are the key control parameters which are used as a basis for business economic decisions.

#### 1.4 BASIS OF THE REMUNERATION SYSTEM FOR THE GOVERNING BODIES

#### **Management Board**

The Management Board agreements were revised on 19 June 2016 by resolution of the Supervisory Board. The remuneration for the Management Board members includes fixed and variable components; the latter are based on annual business performance on a recurring basis and are capped relative to the member's fixed annual salary. This remuneration covers all activities of the individual Management Board members for the Company and its subsidiaries and holdings.

The assessment basis for variable compensation is calculated as follows: each Management Board member receives a profit share equal to 4% of the amount by which pre-tax consolidated net income in accordance with IFRS, adjusted for non-controlling interests and subtracting losses carried forward from the year before, exceeds 8.33 times the member's fixed salary (up to and including 24 August 2016), or EUR 4.2 million (as of 25 August 2016). Variable compensation is capped at 100% of the fixed annual salary.

As a part of the fixed compensation component, the Company provides Management Board members with ancillary benefits in addition to the fixed salary, such as use of a company car, accident insurance, health and long-term care insurance subsidies which conform to the statutory rules for employees and continued payment of wages for a limited time in case of illness and death. Management Board members also receive a pension upon retirement amounting to 67% of their last fixed gross salary, and surviving spouses are entitled to up to 75% of the pension as a widow's pension.

Management Board members are covered by a D&O insurance policy with an insured sum of EUR 17.5 million, with a deductible amounting to 10% of the claim, as required by law, up to one and half times the amount of their fixed annual compensation.

#### **Supervisory Board**

Remuneration of Supervisory Board members was last revised by resolution of the shareholders at the general meeting of 21 June 2012. Remuneration is comprised of a fixed salary in the amount of EUR 10,000.00 a year and an attendance fee of EUR 1,000.00 per meeting of the Supervisory Board, with the chairman of the Supervisory Board receiving 1.5 fold of the aforementioned amounts. If the term of a Supervisory Board member begins or ends over the course of a financial year, the member is entitled to fixed remuneration for that year on a prorated basis.

In the interest of the Company, the members of the Supervisory Board are covered by a D&O insurance policy, which has been taken out by the Company, with an insured sum of up to EUR 17.5 million, and with no deductible for the insured Supervisory Board members. Insurance premiums are paid by the Company.

#### 1.5 RESEARCH AND DEVELOPMENT

Research and development activities play a central role within the context of Nabaltec AG's overall strategy. A key element of the research and development strategy is close collaboration and joint development efforts with customers. In all our business divisions, the focus is on providing customers with an optimal product and helping them achieve a competitive advantage. As a leading supplier of highly specialized products, Nabaltec considers research and development to be one of its central core competencies.

Close collaboration with customers is a common thread for all business divisions and processes. Application-oriented sales allows us to identify specific customer requirements at an early stage and incorporate them as soon as possible into development work. This is true both for the optimization of established products and for the development of new products. Thanks to the strong technical training and expertise of its sales employees, Nabaltec is in a position to quickly identify new trends in established markets and to identify new markets as well.

In order to ensure continued success in a global market, the optimization of production processes is also a high priority for R&D work. Efficient use of energy and resources are the key drivers in this regard.

Our historically grown, in-house expertise which has been built up over the years is supplemented in meaningful fashion through joint projects with universities, public and private institutions and research and technology companies. Research partners currently include RWTH Aachen University, the Fraunhofer Institute for Structural Durability, Plastics Division, in Darmstadt, *Saechsische Textilforschungsinstitut e.V.*, a textile research institution, the Fraunhofer Institute for Ceramic Technologies and Systems in Dresden, Forschungsinstitut für anorganische Werkstoffe-Glas/Keramik-GmbH, a research institute for inorganic materials in Höhr-Grenzhausen, the Fraunhofer Institute for Silicate Research in Wuerzburg, the German Institute for Refractories and Ceramics (*Deutsche Institut für Feuerfest und Keramik GmbH*) in Höhr-Grenzhausen as well as *Forschungsgemeinschaft Feuerfest*, a refractory products research association, in Höhr-Grenzhausen. Nabaltec's innovativeness is also supported by participation in various projects of the AiF (the German Federation of Industrial Research Associations) and the BMWi (Federal Ministry of Economics and Technology) in both of our business divisions.

An expression of Nabaltec's strong commitment to research and development is its receipt of various national and international awards and distinctions for innovativeness. For example, Nabaltec AG has been recognized as one of the 100 most innovative mid-sized German companies nine times and has received awards for innovativeness in multiple areas.

Currently, the focus of Nabaltec's research and development activities is above all on improving and refining existing products and processes. The requirements are defined by customer and market demands, which are constantly changing. These requirements must be

met at all times, while at the same time supplementing and extending our product range in target markets.

Our focus in this regard is on constantly improving quality and on identifying and exploiting new applications.

The following subjects were at the center of R&D activities for the business division "Functional Fillers" in the 2016 reporting year:

Mineral-based flame retardants continue to represent a key growth market for Nabaltec's innovative and eco-friendly products. The trend towards the replacement of halogenated flame retardants with non-halogenated flame retardants continued to ensure growth in 2016. Additional growth came from implementation of the CPR (Construction Products Regulation) within the EU. These new EU-wide rules create new applications for Nabaltec's mineral-based products which were formerly inaccessible. The steady exploitation of these new applications, in some cases resulting in the development of new products, was of central significance in the reporting year. In particular, the strong attention paid in the CPR to the issues of "flue gas development" and "flue gas corrosiveness" have been key drivers for the development of new uses and applications.

Efforts to optimize and market our new raw materials for alternative energy storage and electric vehicles continued steadily in 2016. For the extension of our activities in connection with the catalysis and the adsorbents industry, the focus is now on the development of processes for large-scale production. This is another reason why Nabaltec AG decided to move its pilot plant from Kelheim to Schwandorf. Concentrating product and process development in a single location will cut development time and the lessons which are learned in this regard can be more quickly applied towards large-scale production.

The business division "Technical Ceramics" was focused on the following developments in the reporting year:

A focus of development activities in the NABALOX® product segment in 2016 was on steady improvements to abrasives which are already established in the market. Particular attention was also given to the development of new softly calcined aluminum hydroxides, for use primarily with high-quality abrasives. As the marketing of these products continued to progress, and amid a wide variety of feedback and suggestions from our customers and development partners, development continued in 2016, and additional customer-specific products were developed.

Nabaltec's reactive aluminum oxides are currently used primarily in the refractory industry, where the products already today significantly contribute toward the production of higher performance monolithic and shaped products. This product segment is also characterized by intensive collaboration with our customers, resulting in constant efforts to develop new products and improve existing ones.

In the course of development work, a new product family was developed in 2014. As a result of market feedback and our aim to continuously work on new products and to optimize and

adapt existing products, the product portfolio for this product line was successfully expanded in 2016.

With regard to the patented NABACAST® product group, further products have been developed and presented to customers. In the course of ongoing development work, new potential applications have come to light which led to the development of additional products within the product group.

In very close cooperation with our customers, specific developments were again carried out for our customers in the area of the GRANALOX® product range. As a result of that intensive cooperation, a variety of product variants adapted to customer requirements were developed and successfully delivered.

#### 2. FINANCIAL REPORT

#### 2.1 MACROECONOMIC AND INDUSTRY-RELATED CONDITIONS

#### 2.1.1 MACROECONOMIC SITUATION

Global economic growth was modest in 2016, on the whole, although the pace of growth picked up somewhat after mid-year. According to data from the Kiel Institute for the World Economy (IfW), the global economy expanded at a rate of 3.1% in 2016. Production growth accelerated in the summer, particularly in the industrialized economies. US production increased noticeably in the third quarter of 2016 and US gross domestic product (GDP) was up 0.8 percent for the quarter.

The modest economic expansion in the Euro zone in 2016 came in spite of a slightly negative contribution from foreign trade. On the whole, IfW estimates European GDP growth at 1.7% in its January 2017 report, down from 1.9% in 2015. Economic growth in the Euro zone was broad-based from a regional perspective, as all countries in the zone reported growth in 2016.

Expansive monetary policies, increasing fiscal stimulus measures and a gradual acceleration in wage growth are continuing to have an impact on the economy in industrialized countries. In emerging economies, as well, the overall situation improved; for example, the Chinese economy expanded at a much faster rate in the summer and the pace of decline in Russian production slowed down noticeably.

In 2016 as well, the economic situation in Germany was characterized by solid and steady economic growth. The inflation-adjusted gross domestic product (GDP) in 2016 was up 1.9% from the year before, according to preliminary estimates from the Federal Statistical Office. GDP growth in the previous two years was in a similar range: 1.7% in 2015 and 1.6% in 2014. German GDP growth in 2016 exceeded the ten-year average (+1.4%) by half a percent. The "World Economic Outlook," issued in January by the International Monetary Fund, estimates German GDP growth at 1.7%.

As was the case in the year before, the key growth driver for the German economy in 2016 was domestic consumption, which was up 2.5%. This was in addition to 3.1% growth in investments, driven in particular by domestic housing construction. Investments in

machinery, vehicles and other equipment were also higher (+1.7%). The net contribution of foreign trade, expressed as the difference between exports and imports, had a slightly negative impact on GDP of 0.1 percentage points in 2016.

#### 2.1.2 INDUSTRY DEVELOPMENT

The year 2016 was a difficult one for the German chemical industry. Production was up by a minimal amount (up 0.5%), but industry revenues were down to EUR 183 billion as prices fell by 3%. Investments remained stable at a high level, EUR 7.1 billion, and employment and capacity utilization did as well (Source: VCI – Verband der Chemischen Industrie e. V.). Domestic revenues were down 4% from the year before, to EUR 71.5 billion, as chemicals orders from other industrial sectors were down sharply. Foreign business was slightly better, with revenues down 2,5% from the year before, to EUR 111.5 billion.

The long-term trend of increasing demand for non-halogenated, flame-retardant fillers, and particularly aluminum hydroxide, remains intact. Independent forecasts expect worldwide demand to grow at a rate of 4.4% per year through 2023 (ATH-based; Source: Freedonia). Market growth is stimulated above all by the growing public awareness as to the need for fire safety as well as the ongoing replacement of potentially hazardous flame retardants with eco-friendly, halogen-free aluminum hydroxide. This trend has had a particularly positive effect on the fine precipitated aluminum hydroxide product segment.

Nabaltec's 2016 results improved upon its very strong performance in the previous year in all four quarters. The long-term prospects for boehmite, with its diverse array of applications, also remain strong in the estimation of Nabaltec AG.

In the specialty oxide and reactive aluminum oxide segments, the refractory market is shaped by demand within the steel industry, which found itself in a difficult position on the whole in 2016. Nabaltec was able to counteract the continuing weak demand in the steel industry through industry diversification. But market experts continue to expect an annual growth rate of around 4% for refractory products and technical ceramics through 2021 (Source: Roskill).

#### 2.2 COURSE OF BUSINESS

Nabaltec AG's successful performance in the year before carried over into last year, as revenues in each quarter were up from the year before. On the year, revenues were EUR 159.8 million, up 5.1% from the year before (2015: EUR 152.0 million). Both business divisions contributed to the revenue growth in 2016. Revenues in the business division "Functional Fillers" were EUR 109.1 million in 2016, up 6.6% from the year before (EUR 102.3 million), while revenues in the business division "Technical Ceramics" were up 2.0%, to EUR 50.1 million (2015: EUR 49.1 million). Revenues which are not attributable to either of the two aforementioned segments amounted to EUR 0.6 million in 2016, compared to EUR 0.7 million in the year before.

Earnings before interest and taxes (EBIT) increased from EUR 8.4 million in 2015 to EUR 12.7 million. Shareholders' equity was up 12.1% from the year before (2015: EUR 45.4 million), to EUR 51.0 million.

Because of the extraordinary developments for Nabaltec AG at the beginning of the year 2016, the company did not issue any quantitative forecasts in last year's report for the reporting period. The forecasts for investment and financing activities were met in 2016.

The figures from the year before were revised in accordance with the Accounting Directive Implementation Act (*Bilanzrichtlinie-Umsetzungsgesetz*) in order to facilitate comparability.

# 2.3 OVERVIEW OF THE COURSE OF BUSINESS 2.3.1 RESULTS FROM OPERATIONS

Nabaltec AG reported EUR 159.8 million in revenues in Financial Year 2016, for a strong 5.1% gain over the year before (2015: EUR 152.0 million). The key sales driver in the reporting period was the fine hydroxide product segment, where sales were up 9.5% over the year before. Sales volume over all divisions was up 5.8%, while the export ratio increased to 73.1% from 72.0% in 2015.

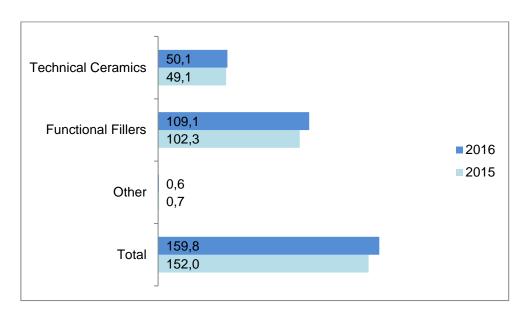
All four quarters contributed equally to the strong revenue growth. Revenues in the first quarter of 2016 were EUR 41.3 million, even higher the very strong result posted in the same quarter of the year before. Second-quarter revenues were EUR 43.0 million, up from the year before as well as from the previous quarter. Revenues in the second half of the year were also up from 2015, with EUR 38.5 million in the third quarter and EUR 37.0 million in the fourth quarter.

Incoming orders amounted to EUR 170.5 million over the year as a whole, up 10.0% from the year before. Nabaltec ended 2016 with orders on hand of EUR 37.1 million, compared to EUR 25.9 million in the previous year. This change can be ascribed in particular to somewhat longer delivery times for fine hydroxides due to the temporary shift of production from the US to Schwandorf, while demand and capacity utilization remained strong.

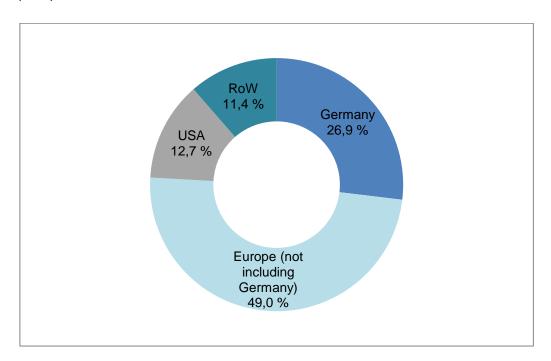
The business division "Functional Fillers" posted EUR 109.1 million in revenues in Financial Year 2016, up 6.6% from the year before, when revenues were EUR 102.3 million. This growth was driven primarily by an increase in volume, while the distribution among high value-added segments remained stable. The effect of the temporary loss of fine hydroxide production in the US was cancelled out entirely in terms of sales volume and revenues. The relatively new boehmite product segment posted strong 68.8% revenue growth, although volume is still low in absolute terms.

Due primarily to an increase in sales volume, particularly in the reactive alumina product segment, revenues in the business division "Technical Ceramics" reached EUR 50.1 million, up from EUR 49.1 million in the year before, for a gain of 2.0%.

# Revenues by business division in 2016 (in EUR millions)



# Revenues by region 2016 (in %)



Nabaltec AG's total performance was up 5.4% in 2016, from EUR 153.3 million to EUR 161.6 million. Inventories of finished goods and work in progress increased by EUR 1.1 million. Own work capitalized amounted to EUR 0.7 million.

Other operating income, amounting to EUR 1.6 million, is attributable primarily to exchange rate gains. Other operating income was down EUR 0.5 million from the year before, due above all to a decrease in gains from the EUR/USD exchange rate relative to the year before.

Operating expense ratios as a percentage of total performance						
2016 2015						
Cost of materials	53.2%	55.9%				
Personnel expenses	18.5%	19.2%				
Other operating expenses	15.3%	14.8%				

The cost of materials ratio (cost of materials as a percentage of total performance) decreased, to 53.2% (2015: 55.9%). In absolute terms, gross earnings amounted to EUR 77.2 million, up EUR 7.4 million from last year's value of EUR 69.8 million.

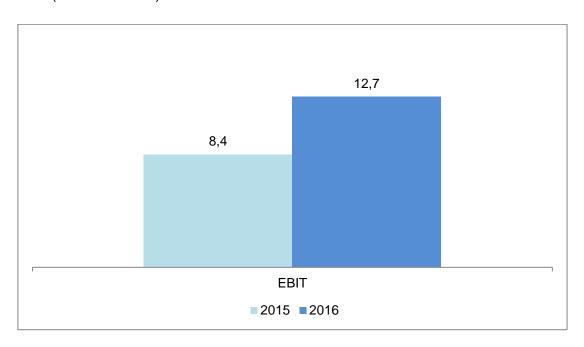
The personnel-expenses-ratio (personnel expenses as a percentage of total performance) decreased from 19.2% last year to 18.5% in 2016. This was attributable to an increase in pension commitments, higher collective wages and the increase in the number of employees from 442 on 31 December 2015 to 455 on 31 December 2016.

Other operating expenses increased from EUR 22.7 million to EUR 24.8 million, due primarily to higher freight costs, higher sales commissions and the expansion of sales activities in Asia and the US. The ratio of other operating expenses to total performance was up from 14.8% last year to 15.3%. The ratios for the key expense categories were largely even with the year before.

Earnings before interest, taxes, depreciation and amortization (EBITDA) were up 27.1%, from EUR 17.7 million to EUR 22.5 million.

Adjusting for EUR 9.8 million in depreciation and amortization in 2016, Nabaltec's operating profit (EBIT) came to EUR 12.7 million, compared to EUR 8.4 million in the year before.

### EBIT (in EUR millions)



Earnings before taxes (EBT) amounted to EUR 10.1 million in the reporting year (2015: EUR 5.4 million). This includes net interest income of EUR -2.6 million in 2016. In the previous

year, net interest income was EUR -3.0 million. The improvement is due in particular to a reduction in interest expenses due to the complete amortization of all bilateral bank loans in 2016.

Tax expenses came to EUR 3.2 million in 2016 (2015: EUR 2.5 million).

Net profit for the period amounted to EUR 6.8 million last year, compared to EUR 2.8 million the year before.

#### 2.3.2 FINANCIAL POSITION

Financial management is assigned to the Management Board directly and primarily includes managing the capital structure, managing liquidity, interest rate and currency hedging and obtaining funds. The subsidiary Nashtec is integrated into the company-wide liquidity management system.

The impact of fluctuations in the USD/EUR exchange rate has been largely neutralized by Nabaltec's production in the US, through the subsidiary Nashtec. Nabaltec uses exchange rate hedging instruments in connection with the change in the USD/EUR structure since the 3<sup>rd</sup> quarter of 2016, as well as additional exchange rate risks, when such a course is indicated due to the volatility of the markets or the scope of the foreign exchange transactions.

Liquid funds in the amount of EUR 9.7 million were made available to the subsidiary through the reporting date (2015: EUR 9.4 million). The interest rates and contractual terms conform to the standards for mid-sized companies. Nabaltec also uses various interest rate hedging instruments with a mid- to long-term interest rate lock period (e.g. interest rate swaps) on a case-by-case basis in connection with variable-interest outside financing.

Funding to finance growth and investments will be secured by means of loans against borrower's notes. All bilateral bank loans were amortized as scheduled in 2016.

# 2.3.2.1 CAPITAL STRUCTURE

Shareholders' equity increased from EUR 45.5 million to EUR 51.0 million as of 31 December 2016. While total assets were EUR 164.7 million, nearly the same as the year before (2015: EUR 164.7 million), the equity ratio increased, from 27.6% to 31.0%. This continues to represent a solid capital base by industry standards.

Liabilities decreased in the reporting year from EUR 94.7 million to EUR 86.1 million. Accounts payable to banks decreased by EUR 10.1 million, to EUR 72.7 million. This included the loan against borrower's note, with a volume of EUR 71.5 million. Pension reserves increased by EUR 2.9 million in 2016, to EUR 21.4 million.

Selected balance sheet items in relation to total assets

	12/31/2016	12/31/2015
Equity	27.6%	30.4%
Provisions	14.9%	14.2%
Liabilities	57.5%	55.4%

### Other off-balance sheet financing instruments

Nabaltec has, to a minor extent, concluded lease agreements with terms of up to five years. Nabaltec also make uses of factoring on a continuous basis for trade receivables, in part as a way of minimizing default risks. Nabaltec AG does not use any other instruments which can be categorized as financial engineering.

#### 2.3.2.2 INVESTMENTS

Nabaltec AG made EUR 17.2 million in investments last year, compared to EUR 12.8 million the year before (in each case including investment grants offsetting part of the total). Investments were made primarily in infrastructure projects and technical equipment and machinery for capacity expansion, process optimization and replacement investments.

#### **2.3.2.3 NET ASSETS**

Nabaltec AG's total assets were EUR 164.7 million on 31 December 2016, the same as last year.

Significant assets in relation to total assets

	12/31/2016	12/31/2015
Fixed assets	56.7%	52.4%
thereof: property, plant and equipment	50.3%	46.3%
Current assets	43.3%	47.6%
thereof: inventories	17.1%	16.0%

# 2.4 FINANCIAL AND NON-FINANCIAL PERFORMANCE INDICATORS 2.4.1 FINANCIAL PERFORMANCE INDICATORS

In addition to the performance figures of Nabaltec AG already published in the financial report (see Sections 2.2 Course of Business and 2.3 Overview of the Course of Business), Nabaltec AG uses the following financial performance indicators for internal management purposes. This internal controlling and management system enables management to pursue value-based management of the Company.

Key ratios used by Nabaltec AG:

Return on sales and capital	2016	2015
Return on equity	13.3%	6.2%
Return on Capital Employed (ROCE)	11.5%	7.9%

Return on equity, consisting of the ratio of net profit to equity, amounted to 13.3% in the reporting year, up from 6.2% in the year before. This increase is attributable to the earnings trend.

Return on Capital Employed (ROCE) is the ratio of EBIT to capital employed (non-current assets + working capital). In the reporting period, this figure amounted to 11.5%, after 7.9% in the prior year.

#### 2.4.2 NON-FINANCIAL PERFORMANCE INDICATORS

# **Employees**

At the end of 2016, Nabaltec AG had a total of 455 employees (31 December 2015: 442). All employees are employed in Germany. This figure also includes 53 apprentices (31 December 2015: 48). Nabaltec sets a high value on good training. In 2016 as well, the rate of apprentices represented a remarkably large share of the workforce, 11.6%. This rate again exceeded the industry average significantly in 2016. Nabaltec's apprentices are regularly among the best of their class. Training positions are currently available for male and female industrial clerks, IT clerks, chemical laboratory technicians, chemists, electrical mechanics specialists and industrial mechanics specialists, as well as for chemicals production workers.

Nabaltec AG is regularly among the 100 best employers among German mid-sized companies, according to the "TOP JOB" nationwide multi-sector survey. Distinctions like these, which Nabaltec received for the fourth time in 2015, indicate how seriously the Company takes its responsibility towards its employees. A central concern for Nabaltec is to offer its employees prospects and opportunities for advancement within the Company in order to promote identification with the Company by these means as well, and encourage hard work and commitment.

#### **Customer Relations**

Over the last few years, Nabaltec has been able to once again strengthen and develop its market standing. Important arguments in collaboration with customers include Nabaltec's proven reliability as a supplier and consistent quality. Nabaltec has demonstrated that it is a very reliable partner for long-term relationships built on trust. These attributes pose an important competitive advantage in the current market environment.

Nabaltec also distinguishes itself as a competent and capable supplier through its consistent development of consulting expertise by investing personnel and resources in R&D.

Nabaltec participates in various European associations in order to ensure full access to key markets and technologies. In addition to the two professional associations within Cefic, the European Chemical Industry Council, Pinfa, (the Phosphorus, Inorganic & Nitrogen Flame Retardants Association) and EPSA (European Producers of Specialty Alumina), Nabaltec is also involved in *Forschungsgesellschaft Kunststoffe e. V.*, a plastics research association. In the US, Nabaltec participates in Pinfa North America and the American Ceramics Society. Nabaltec's close relationship with *Forschungsgemeinschaft Feuerfest*, a refractory materials research association, and its associated membership in *Verband der Deutschen Feuerfest-Industrie e.V.*, the German Refractory Industry Association, ensures intensive connections with this key market.

Through these activities, Nabaltec is able to identify major trends in its primary markets, "ceramics" and "flame retardants," at a very early stage and on a global scale, allowing Nabaltec to respond early on.

A basic prerequisite for Nabaltec's market success is products which are specifically developed and optimized to meet customers' requirements, and which are supplied in the

needed quantities over long periods of time in stable to consistently optimal quality. Nabaltec's products help make our customers' products safer, eco-friendlier, more robust and more competitive while at the same time optimizing their production processes. For this reason, joint development projects and business relationships result in long-term supply contracts and lasting relationships. Particularly for new products, Nabaltec often undergoes long and intensive approval procedures with its customers. In most cases, the successful conclusion of these procedures results in long-term supply agreements based on reliable conditions and quantities.

#### **Management Systems**

In order to promote safety-consciousness among all of our employees and to simplify implementation of statutory and trade association requirements, Nabaltec decided as far back as 2007 to introduce a health and workplace safety management system in accordance with BS OHSAS 18001 (British Standard Occupational Health and Safety Assessment Series) in addition to its existing quality and environmental management systems in accordance with ISO 9001 and ISO 14001. In 2016, recertification audits of the existing management systems based on ISO 9001 and ISO 14001 were performed in the Schwandorf and Kelheim locations. At the Corpus Christi site, a recertification audit of the quality management system in accordance with ISO 9001 was also successfully conducted. A monitoring audit for the workplace safety and health management system was performed in accordance with BS OHSAS 18001.

In order to be able to effectively meet the requirements of a continuously changing energy market, Nabaltec introduced a certified energy management system as early as 2010. In 2016, the certification was confirmed in a recertification audit at the Schwandorf and Kelheim sites in accordance with ISO 50001.

Nabaltec AG's commitment to sustainability was recognized in 2016 with a "silver" rating in an assessment study from the EcoVadis Initiative.

#### **Environmental Protection**

Nabaltec requires its own products to significantly contribute toward environmental protection and toward the improvement of the eco balance of a multitude of products. The increasing significance of environmental protection is one of the most important drivers for the global market success of Nabaltec products. For instance, they break nitrous oxides in diesel particle filters down or substitute halogenated flame retardant components, such as bromine, in plastics. In this respect, it is of central importance that research and development, production as well as up- and downstream logistics to be as environmentally friendly as possible. The conservation of natural resources is a central concern for Nabaltec and a prerequisite for social acceptance of the Company. Nabaltec AG actively accepts responsibility for the environment: a commitment that extends well beyond its own sites.

As in prior years, special emphasis was placed on optimizing energy processes in production as a means of cutting costs. In 2016 as well, a great deal of projects were performed in this area. Together with external partners, Nabaltec has developed techniques requiring much less process energy, leading to a substantial reduction in CO2 emissions. A very substantial percentage of Nabaltec's energy requirements are met through renewable energy in collaboration with the Schwandorf special-purpose association for waste recycling.

In general, Nabaltec endeavors to develop production processes with a closed loop for all production facilities. Regarding the handling of chemicals, such as lye, which are used for the production of fine hydroxide, Nabaltec consistently seeks to keep them from being released into the environment and instead to ensure that they are reused in a closed-loop production cycle. In addition, new technologies are used in order to substantially reduce the need for washing water due to increased production and higher quality requirements.

#### **Capital Market**

Since its initial public offering in 2006, Nabaltec has had intact access to the capital market. This is proven by the bond offering in 2010 as well as the loans against borrower's note in 2013 and 2015. This market access, maintained by transparent and reliable communications at all times, secures Nabaltec a balanced and largely independent means of financing, which is also perceived positively in the sales markets.

#### 3. REPORT ON SUBSEQUENT EVENTS

Events of particular importance for the assessment of Nabaltec AG's financial, earnings and liquidity position which took place after the reporting date, 31 December 2016, can be found in the supplemental report in the Notes.

# 4. REPORT ON OUTLOOK, OPPORTUNITIES AND RISKS 4.1 OUTLOOK

#### Overall statement on the prospective development

Nabaltec also foresees intact sales markets and stable demand for its products in 2017, if the market environment does not change fundamentally. The Company has taken a leading international position within its markets. Based on the further development of its market position in 2016 and the reputation it has built up over many years, Nabaltec sees good future prospects for its key products.

#### **Economic and industry development**

In its economic outlook, the Kiel Institute for the World Economy (IfW) calls for the global economy to expand over the next two years. From global GDP growth of 3.1% in 2016, IfW expects growth to climb to 3.5% in 2017 and 3.6% in 2018. Production in the advanced economies is expected to increase in the view of the continuation of expansive monetary policies, the growth in fiscal stimulus measures and somewhat stronger demand growth in developing and emerging markets, resulting in an acceleration in economic activity. The forecasts of the International Monetary Fund (IMF) call for GDP growth in the advanced economies of 1.9% in 2017 and 2.0% in 2018, up from 1.6% in 2016. The expansion in emerging markets will accelerate slightly, particularly due to the recent rebound in commodities prices.

IfW expects a modest expansion in the Euro zone, with a growth rate of 1.7% in each of the next two years. Unresolved structural problems in parts of the Euro zone continue to weigh down the outlook and the upcoming 2017 parliamentary elections in four of the Euro zone's five largest member states (Germany, France, Italy and the Netherlands) contain uncertainty for the Euro zone's orientation in terms of economic policy.

IfW expects the German economy to grow by 1.7% in 2017. The forecast from Deutsche Bank AG is more cautious: in its research, the bank's analysts call for 1.1% GDP growth in 2017. The British exit from the EU will hardly impact the German economy, according to IfW. The long-term economic impact of the US presidential election and the constitutional referendum in Italy is difficult to gauge at the moment. An increase in exports and an uptick in construction investments, driven by the financing conditions, are expected to stimulate growth. However, once the impact of oil prices in holding prices down begins to subside in the coming years, private households will feel the effect of rising prices for consumer goods, which should diminish purchasing power.

GDP Growth Forecast		
over Prior Year (in %)		
	2017	2018
World	3.5	3.6
USA	2.5	2.7
Euro zone	1.7	1.7
Germany	1.7	2.0
France	1.2	1.4
Italy	0.8	1.0
United Kingdom	1.2	1.6
Japan	1.2	0.7
China	6.4	5.9
India	6.8	7.2

Source: IfW, "Weltkonjunktur im Winter 2016," 14 December 2016

The chemicals industry association VCI (Verband der Chemischen Industrie e.V.) does not expect strong growth in chemicals production in the coming year, with a growth rate of 0.5%. In particular, it expects political uncertainty and mounting economic risks in foreign markets to inhibit growth within the industry. With prices climbing slightly, by 1%, total revenues are expected to increase to EUR 185 billion, due above all to foreign business.

The outlook in key target markets is largely positive, in Nabaltec's view, as regulatory requirements continue to stimulate growth in eco-friendly flame retardants. The German construction sector and the automotive industry remain stable. Positive conditions in the railway sector especially generated positive growth in the electrical industry, and this trend is expected to continue in 2017. The cable industry is benefiting from special conditions such as the expansion of power grids due to the connection of decentralized installations for the generation of renewable energy, such as wind and solar power. As a result, the cable industry will have higher demand in the future for high-quality non-halogenated flame retardant formulas, which are the domain of Nabaltec AG.

#### Outlook on the course of business

Nabaltec intends to remain on a moderate growth course in 2017. The year 2017 is off to a good start. Revenue growth is to be achieved primarily through price increases in the functional fillers segment. The US subsidiary Nashtec LLC is not currently expected to

contribute to production in the 2017 Financial Year due to the need to transition to a standalone solution.

Orders on hand amounted to EUR 37.1 million as of 31 December 2016.

In 2017, fine hydroxides will continue to be the most important product segment by far within the functional fillers division, and the growth outlook is positive for this segment. Nabaltec also expects slight growth in technical ceramics in 2017.

#### Expected earnings, net assets and financial position

Assuming stable economic performance, Nabaltec expects revenue growth in the low single digits in 2017. The Company expects an EBIT margin in the high single digits in 2017.

Nabaltec expects investments in 2017 to be up from the year before. Investments are planned primarily in altering and expanding the production site in the US, as well as in process optimization and infrastructure.

Net financial income is expected to improve slightly in 2017 over the year before.

#### Note with respect to uncertainties in the outlook

The statements and information with respect to future developments stated above are based on current expectations as well as certain assumptions. They therefore involve several risks and uncertainties. A large number of factors, a significant part of which is not under Nabaltec AG's control, affect future sales and earnings. As a result, actual results may deviate from the statements and forecasts made in this report.

#### 4.2 RISKS AND OPPORTUNITIES REPORT

#### **Sales Market**

The 2008/2009 international economic crisis showed that a shock in demand such as was seen then can have far-reaching consequences in Nabaltec AG's target markets as well. In spite of greater flexibility and adjustments in cost structures and capacities, such high fluctuations in demand can implicate noticeable volume and margin risks. Additional sales risks include the potential loss of significant key accounts, loss of market share due to technological innovation and new advances by competitors. Due to Nabaltec's strong position as an innovation and quality leader as well as continuous monitoring of target markets, such risks can be confined and the relevant market mechanisms can, at the same time, be used as an opportunity within global competition.

#### **Procurement Market**

Nabaltec monitors its suppliers' economic situation very closely and deliberately builds up alternatives for all products. Nabaltec AG uses mid- and long-term supply agreements for its supply of raw materials. Supply of the energy sources which are most important for the production process, such as electricity, gas and steam, is secured by long- term agreements. The certification of the energy management system in accordance with ISO 50001 supports these efforts. In addition, efforts are constantly being made to optimize production processes in order to reduce specific energy usage. An additional risk is an excessive increase in logistics costs. Nabaltec AG can counter this risk by passing on logistics costs to customers

and by finding a balanced logistical mix. For example, Nabaltec AG has its own railway siding, which makes transport by rail very attractive.

The arrangement in the US is a special situation, with Nashtec LLC relying on a direct supply of raw materials from Sherwin Alumina LLC. On 11 January 2016, Sherwin Alumina LLC filed for bankruptcy under Chapter 11 of the United States Bankruptcy Code at the United States Federal Bankruptcy Court in Corpus Christi, Texas. Sherwin Alumina LLC discontinued operations in the third quarter of 2016, as part of the bankruptcy proceedings. As a result, Nashtec LLC was also compelled to temporarily halt operations. Since then, Nabaltec AG has been supplying its US customers from its plant in Schwandorf, Germany.

#### **Financial Market**

When necessary, foreign exchange rate risks are strategically minimized using hedging instruments covering risks arising from US dollar exposure. In case of medium term financing, interest risks are hedged using swaps or loan agreements are concluded with fixed interest rates. Nabaltec AG and its US subsidiary have a detailed financial and liquidity forecast which is subjected to routine comparisons of estimates against results. If additional liquidity is deemed necessary, the appropriate financing measures are initiated. The risk of changes in interest rates is countered in part through hedging. Nabaltec AG's loan agreements are partially subject to covenants which are tied e.g. to leverage coverage ratios as well as the equity ratio. If the covenants are not observed, the lender has the option to increase the interest margin or exercise its right of extraordinary termination. Covenants valid as of 31 December 2016 were not breached in the reporting year.

Factoring is used to a substantial extent for the financing of accounts receivable.

#### Personnel

Particularly the fluctuation of employees in key positions gives rise to personnel risks. Nabaltec minimizes these risks through intensive training/education and management trainee programs to enhance the qualification of employees, performance-based remuneration, employee substitution arrangements that govern the temporary replacement of key employees, and early advance plans for successors. The Company also offers good career opportunities and advancement possibilities. Nabaltec's market position, the reputation it has earned in the industry, its high reliability and its familiar strong focus on research and development make Nabaltec an attractive employer within its market segments and region.

### **Production, Processes and IT**

Nabaltec has an integrated quality management system with ISO 9001 accreditation that is implemented company-wide. Therefore, Nabaltec considers production-specific risks clear and manageable. For IT applications that are critical for the business, Nabaltec AG relies on standard programs and the redundantly designed high-quality hardware. Through regular verification of the access structure, data protection is guaranteed; data security is therefore based on generally well-established procedures. Compliance with data protection policies based on the legal requirements is ensured at all times within the Company and is additionally monitored by an external data protection officer.

#### **Environmental Protection**

Environmental risks can arise from exceeding admissible thresholds for noise and dust pollution or through the emission of hazardous substances. Nabaltec counters these risks by

means of extensive environmental management based on ISO 14001, which is accredited and is periodically further developed and audited. Nabaltec uses closed-loop production processes, e.g. for water and lye.

#### **Technological Development**

Potential technological risks could result from customers replacing Nabaltec products due to a change in technology, from the failure to use new technologies and from not recognizing technological developments. As an innovation leader, Nabaltec tries to minimize these risks by engaging in continuous and intensive research and development efforts and by maintaining pronounced customer proximity. In fact, technological developments offer numerous opportunities for Nabaltec to generate a competitive edge in product quality, by occupying new markets through fast-pace product adjustments and by creating process, processing and quality advantages together with our customers so as to set the stage for economic success.

### Legal Framework

Changes within the legal framework could lead to risks for Nabaltec. Currently, regulatory changes are creating additional market opportunities - and this trend is not expected to reverse in the medium and long term. Eco-friendly products such as Nabaltec's are being pushed forward on a global scale in an effort to eliminate materials which are harmful to the environment from the cycle.

As an intensive electricity user in international competition, Nabaltec will benefit from the renewable energy surcharge in 2017 as well. On the other hand, the provisions of the "2017 Renewable Energy Act" will, in the medium term, lead to an increase in renewable energy expenses in the mid-six figures.

#### Risk Management System

For Nabaltec AG, the relevance of risk management is derived from its business activities and its worldwide operations, involving an international competitive and regulatory environment, as well as the general complexity of the global economy. Nabaltec AG's success depends to a considerable extent on identifying associated risks and opportunities as well as dealing with them consciously and bringing risks under control. Effective risk management is a core element for securing the Company long term, for its economic success in international markets and for its successful, sustainable future development.

Nabaltec is constantly working to develop the risk management within the Company. The continuous optimization of risk prevention tools in all areas enables the early identification and elimination of business risks. Integral elements include risk management as an ongoing process, risk controlling, extensive communication and documentation processes, as well as an internal monitoring system. All discernible internal and external risks are identified, documented, assessed and included in a risk matrix as efficiently as possible. This risk matrix represents the basic framework for the assessment of potential risks and for the identification of key risks.

The starting point of the actual risk management processes at Nabaltec is the identification and evaluation of various types of risks and risk profiles that are monitored and managed by the controlling department. Reports on business risks as well as continuous status reports

are prepared for the Management Board and discussed by the management circle. An important component is also the comprehensive operational budget including targets, regularly supplemented with forecasts.

Nabaltec has implemented a strategic planning system in order to take advantage of medium and long term opportunities and to identify risks. All relevant units are involved in the strategy development process. Risks arising from competition, anti-trust, tax and environmental laws and regulations are mitigated by Nabaltec in advance by engaging experts. Quality assurance measures limit product and environmental risks. Such measures include e.g. certification of our activities in accordance with international standards, constant improvements to facilities and processes, the development of new and the improvement of existing products as well as participation in international professional committees.

Risk management also includes routinely reviewing the efficiency of applied hedging instruments and the reliability of controlling systems. There is insurance coverage for casualty and liability risks, thus limiting the financial consequences for the Company's liquidity, financial position and earnings as well as preventing situations that could jeopardize the continued existence of the Company.

#### **Overall assessment**

Based on our continuous surveillance of relevant markets, as described above, as well as the constant efforts to improve our products and adapt to the needs of existing and potential customers, the Company's future development is currently not exposed to any significant risks, except the risks described above associated with the US subsidiary Nashtec. On the whole, the Company's risks are well-managed and their potential impact is therefore limited. Nabaltec AG's future existence is secured.

#### 5. CORPORATE GOVERNANCE STATEMENT AND REPORT

The activities of Nabaltec AG's executive and supervisory committees are governed by the principles of responsible management. Since the Company is listed on the Open Market of the Frankfurt stock exchange with admission to the Entry Standard segment (as of March 2017: Scale segment), the Management Board voluntarily reports on the corporate management and governance in the form of a Declaration of Corporate Governance in accordance with Section 289a Paragraph 1 of the German Commercial Code (HGB) – simultaneously also for the Supervisory Board. The declaration is published on the Company's website www.nabaltec.de under Investor Relations/Corporate Governance.

Schwandorf, 17 March 2017

Nabaltec AG
The Management Board

Johannes Heckmann

Günther Spitzer

Dr. Michael Klimes

ASSETS

LIABILITIES

	31/12/2016	31/12/2015		31/12/2016	31/12/2015
	TEUR	TEUR		TEUR	TEUF
A. FIXED ASSETS			A. SHAREHOLDERS' EQUITY		
			Subscribed capital	8,000	8,00
I. Intangible assets			i. Subscribed capital	8,000	0,00
<ol> <li>Purchased licenses, proprietary rights and similar rights and assets, as well as licenses to such rights and assets</li> </ol>	407	324	II. Capital reserve	30,824	30,82
2. Advance payments made	35	125	III. Retained earnings	12,213	6,65
			III. Retained earlings	12,213	6,63
	442	449			
II. Property, plant and equipment				51,037	45,47
<ol> <li>Land, leasehold rights and buildings, including buildings on unowned land</li> </ol>	19,838	15,458			
Technical equipment and machinery	49,163	50,012			
Fixtures, fittings and equipment     Advance payments made and assets in process of construction	2,886 11,031	2,665 8,080	B. SPECIAL ITEM FOR FIXED-ASSET INVESTMENT GRANTS	4	
4. Advance payments made and assets in process of construction	11,031	0,000	C. PROVISIONS		
			Provisions for pensions and similar obligations	21,435	18,53
	82,918	76,215	Provisions for faxes	1,112	1,568
III. Financal assets	02,310	70,213	Other provisions	5,016	4,41
Shares in affiliated companies	240	163	3. Office provisions	3,010	7,71.
Loans to affiliated companies	9,744	9,382			
	-,	2,222		27,563	24,51
	9,984	9,545			
	9,904	9,545	D. ACCOUNTS PAYABLE		
			Accounts Parable     Accounts payable to banks	72,724	82,830
	93,344	86,209	Trade payables	12,330	9,77
B. CURRENT ASSETS	00,011	00,200	Accounts payable to affiliated companies	158	29
I. Inventories			Other accounts payable	879	1,779
Raw materials and supplies	15,290	14,018	- thereof from taxes: TEUR 306 (year before: TEUR 259)		
2. Finished products and merchandise	12,890	12,413	- thereof from social security: TEUR 31 (year before: TEUR 26)		
			_		
III. Assessment associated and other associa	28,180	26,431		86,091	94,672
II. Accounts receivable and other assets	2.004	E 000			
Trade receivables     Other assets	3,091 5,381	5,202 6,378			
2. Other assets	5,361	0,370			
	8,472	11,580			
III. Cash on hand and in banks	34,633	40,369			
	71,285	78,380			
C. DEFERRED EXPENSES AND ACCRUED INCOME	66	81			
O. DET ENTED EAT ENGES AND ACCROED INCOME					
	164,695	164,670		164,695	164,670

	01/01	- 12/31/2016	01/01 - 12/31/2015*	
	TEUR	TEUR	TEUR	TEUR
1. Revenues		159,791		152,007
2. Increase or decrease in inventories of finished products		1,078		869
3. Own work capitalized		716		450
Total performance		161,585		153,326
Other operating income     thereof from currency translation: TEUR 1,026 (year before: TEUR 1,628)		1,596		2,154
		163,181		155,480
5. Cost of materials:				
a) Cost of raw materials and supplies for purchased goods	85,327		84,814	
b) Cost of purchased services	652	85,979	870	85,684
Gross earnings		77,202		69,796
6. Personnel expenses:				
a) Wages and salaries	23,471		21,930	
<ul> <li>b) Social security contributions and pension and support expenses</li> <li>thereof for pensions: TEUR 2,493 (year before: TEUR 3,640)</li> </ul>	6,437		7,509	
7. Depreciation of intangible assets and property, plant and equipment	9,784		9,271	
Other operating expenses     - thereof from currency translation: TEUR 462 (year before: TEUR 415)	24,783	64,475	22,696	61,406
		12,727		8,390
Income from other securities and loans of financial assets     thereof from affiliated companies: TEUR 319 (year before: TEUR 242)	319		242	
10. Other interest and similar income	151		135	
<ul><li>11. Interest and similar expenses</li><li>thereof from discounting: TEUR 782 (year before: TEUR 740)</li></ul>	3,081		3,330	
Net financial income		-2,611		-2,953
12. Net income from ordinary business activities		10,116		5,437
13. Extraordinary expenses				
14. Net extraordinary income				
		10,116		5,437
15. Taxes on income	3,245		2,547	
16. Other taxes	112	3,357	51	2,598
17. Net income		6,759		2,839
18. Profit carry-forward		5,454		3,815

<sup>\*2015</sup> adjusted in accordance with the Accounting Directives Implementation Act

# Statement of Fixed Assets of Nabaltec AG for the Period from 1 January 2016 to 31 December 2016

	Cost Depreciation											
	4 1	A LPC.	D:	A P	04.50040	4 1	A -1-1141	10/	D:	04.5	Book value	Book value
	1 Jan. 2016	Additions	Disposals EUR	Adjustments EUR	31 Dec. 2016 EUR	1 Jan. 2016 EUR	Additions	Write-ups	Disposals EUR	31 Dec. 2016 EUR	31. Dec. 2016	31. Dec. 2015 EUR
	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
I. Intangible assets												
Licenses, proprietary rights and similar rights and assets, as well as licenses to such rights and assets												
	2,685,621.76	172,489.66	2,075.34	71,337.27	2,927,373.35	2,362,098.31	160,822.92	0.00	2,074.32	2,520,846.91	406,526.44	323,523.4
Advance payments made	125,226.86	-18,889.59	0.00	-71,337.27	35,000.00	0.00	0.00	0.00	0.00	0.00	35,000.00	125,226.8
	2,810,848.62	153,600.07	2,075.34	0.00	2,962,373.35	2,362,098.31	160,822.92	0.00	2,074.32	2,520,846.91	441,526.44	448,750.3
II. Property, plant and equipment												
<ol> <li>Land, leasehold rights and buildings, including</li> </ol>												
buildings on unowned land	22,710,888.24	4,059,169.12	0.00	1,235,462.51	28,005,519.87	7,252,681.87	914,549.31	0.00	0.00	8,167,231.18	, ,	
Technical equipment and machinery	117,155,415.52	2,483,109.47	424,364.56	4,635,640.93	123,849,801.36	67,143,417.69		0.00	421,754.16	74,686,586.12	49,163,215.24	50,011,997.8
Fixtures, fittings and equipment	8,547,451.44	826,807.04	274,117.95	157,853.52	9,257,994.05	5,882,541.11	743,311.44	0.00	254,252.21	6,371,600.34	2,886,393.17	2,664,910.3
Advance payments made and assets in process of construction	8,079,658.14	8,979,875.27	0.00	-6,028,956.96	11,030,576.45	0.00	0.00	0.00	0.00	0.00	11,030,576.45	8,079,658.1
	156,493,413.34	16,348,960.90	698,482.51	0.00	172,143,891.73	80,278,640.67	9,622,783.34	0.00	676,006.37	89,225,417.64	82,918,474.09	76,214,772.6
II. Financial assets												
Shares in affiliated companies	162.930.73	77.537.41	0.00	0.00	240.468.14	0.00	0.00	0.00	0.00	0.00	240.468.14	162.930.7
Loans to affiliated companies	9,381,892.78	593,684.61	231,620.74	0.00	9,743,956.65	0.00	0.00	0.00	0.00	0.00	9,743,956.65	9,381,892.7
2. Zoano to annatou companio	0,001,002.10	000,001.01	201,02011	0.00	0,1 10,000.00	0.00	0.00	0.00	0.00	0.00	0,7 10,000.00	0,00.,002
	9,544,823.51	671,222.02	231,620.74	0.00	9,984,424.79	0.00	0.00	0.00	0.00	0.00	9,984,424.79	9,544,823.5
	168,849,085.47	17,173,782.99	932,178.59	0.00	185,090,689.87	82,640,738.98	9,783,606.26	0.00	678,080.69	91,746,264.55	93,344,425.32	86,208,346.4

# Nabaltec AG, Schwandorf

# **Notes for Financial Year 2016**

# **General Disclosures Concerning the Financial Statements**

Nabaltec AG, with registered office in Schwandorf, Germany<sup>1</sup>, was formed by Company Agreement of 14 December 1994 with the corporate name Nabaltec GmbH and registered office in Schwandorf (entered into the Commercial Register of the Local Court of Amberg under Commercial Register No. B 3920). It acquired the specialty oxides business of VAW aluminium AG in 1995 and was transformed into a joint-stock company in 2006. The annual financial statements were prepared in accordance with the accounting rules of the German Commercial Code as amended by the Accounting Directives Implementation Act of 23 July 2015. The modified rules are applied for the first time in Financial Year 2016. The provisions of the German Stock Corporation Act and the Articles of Association were also observed. The total cost method was applied for the income statement.

Nabaltec AG, Schwandorf, is a large corporation in terms of § 267(3) of the German Commercial Code.

# **Accounting Policies**

The following recognition and measurement methods were applied to the items of the income statement:

**Intangible assets** are recognized at cost less straight-line depreciation. Depreciation in the year of addition is performed on a prorated basis.

**Property, plant and equipment** are recognized at cost less depreciation.

Depreciation is performed using the straight-line method based on the typical useful life for the asset, which is based on the maximum allowable rates under tax rules. Depreciation is prorated in the year of addition. Cost includes interest on debt. Independently usable assets with a value of less than EUR 150.00 are written off as business expenses in the year of addition pursuant to § 6 (2a) of the Income Tax Act. A collective item is recognized for assets which exceed this value but whose value does not exceed EUR 1,000.00. These assets are depreciated at a rate of one fifth per year.

**Financial assets** are recognized at their amortized cost. If necessary, they are written down to fair value (if lower than amortized cost). If the reasons for using this lower measurement no longer apply, they are written up to the higher value.

<sup>&</sup>lt;sup>1</sup> Nabaltec AG, Alustraße 50-52, 92421 Schwandorf, Germany

Raw materials and supplies, as well as merchandise, are recognized at cost observing the strict lowest-value principle. Cost is determined using the average method. Items whose fair value is below cost as of the reporting date are written down to fair value.

**Finished products** are measured at cost, observing the strict lowest-value principle. Production cost includes reasonable percentages of material and production overhead costs in addition to direct material and production costs. Interest on debt and general administrative costs are not included in production costs. Finished products are combined into valuation units for group measurement pursuant to § 240(4) of the German Commercial Code. To this end, the production costs of products of the same type and nearly equivalent products are not assigned to individual items, but are instead measured using the weighted average value for their group.

**Accounts receivable and other assets** are recognized at face value. Individual allowances are performed to account for identified individual risks. A general allowance was not performed in the reporting year.

**Liquid funds** are recognized at face value.

**Deferred expenses and accrued income** consist of spending prior to the reporting date which relates to periods after the reporting date. This item is reversed in straight-line fashion over the course of time.

**Deferred taxes** are calculated for temporary differences between commercial and tax law in the measurement of assets, liabilities and accrual and deferral items. Deferred taxes are presently calculated based on a combined tax rate of 29.13%. This combined tax rate includes corporate income tax, trade tax and the solidarity mark-up. If the result is a net tax liability, this amount is recognized as a deferred tax liability. If the result is a net tax reduction, the associated capitalization option would not be exercised. There was a net deferred tax asset this year, which was not recognized in the financial statements.

**Subscribed capital** is recognized at nominal value.

The **special item for fixed-asset investment grants** was reversed in the amount of the grant and will be reversed over the useful life of the subsidized investment.

**Pension reserves** are measured using the projected unit credit method, applying actuarial principles, with an actuarial interest rate of 4% per annum, based on the 2005 G benchmark tables of Prof. Dr. Klaus Heubeck. Based on the option pursuant to Article 67(1) Sentence 1 of the Introductory Act to the German Commercial Code, TEUR 267 was transferred to pension reserves in the Financial Year (1/15th of the difference calculated on 1 January 2010), as was done in previous years as well. Pension liability insurance policies exist which are pledged to the pension recipients. Accordingly, the assets and liabilities in connection with the pension liability insurance policies are netted out in accordance with § 246(2) of the German Commercial Code.

**Other provisions** are formed for all identifiable risks and contingent liabilities in the amount which is necessary based on a reasonable commercial assessment. Measurement of the settlement amount is to take into account cost increases to the extent necessary. Other provisions with a term of more than one year are discounted at rates published by Deutsche Bundesbank commensurate with their term.

**Accounts payable** are recognized at their settlement amount.

**Accounts payable denominated in foreign currency** whose residual term is no longer than one year are measured using the average exchange rate on the reporting date. All other foreign-currency accounts payable are measured using the exchange rate as of invoicing or the average exchange rate on the reporting date, if the latter is higher.

Accounts receivable denominated in foreign currency whose residual term is no longer than one year are measured using the average exchange rate on the reporting date. All other foreign-currency accounts receivable are measured using the exchange rate as of invoicing or the average exchange rate on the reporting date, if the latter is lower.

**Derivative financial instruments** are measured individually at their market value as of the reporting date. If the requirements for the formation of valuation units pursuant to § 254 of the German Commercial Code are met, the derivatives and the underlying transactions are measured as a single unit.

# **Disclosures Concerning the Balance Sheet**

# Fixed assets

The change in individual fixed-asset items is shown in the annex to the Notes.

Debt interest in the amount of TEUR 273 was included in production costs in the reporting year. The average financing cost rate used to determine capitalizable debt interest was 3.20%.

Debt interest was capitalized in the Financial Year for the following fixed-asset items:

Property, plant and equipment:

Land, leasehold rights and buildings, including buildings on unowned land 10,910.54 EUR

Technical equipment and machinery 126,085.74 EUR

Advance payments made and assets in process of construction 135,970.84 EUR

#### Accounts receivable and other assets

Other assets largely consist of accounts receivable from a factoring company for withheld purchase prices (TEUR 3,451), value-added tax refund claims (TEUR 1,320), an energy tax refund claim (TEUR 279) and an electricity tax refund claim (TEUR 315). All accounts receivable and other assets have a residual term of less than one year.

# Deferred expenses and accrued income

TEUR 66 of deferred expenses and accrued income relates to prepaid expenses for the next Financial Year.

#### Shareholders' equity

a) Subscribed capital

EUR 8,000,000.00

The capital stock is divided into 8,000,000 no-par-value shares.

b) Authorized capital

As of 31 December 2016, authorized capital was as follows (through 31 May 2021)

EUR 4,000,000.00

The Management Board, with the Supervisory Board's approval, was authorized by resolution of the shareholders of 9 June 2011 to raise the capital stock through 8 June 2016 once or multiple times by up to EUR 4,000,000.00 by issuing up to 4,000,000 new no-par-value bearer shares in exchange for cash and/or non-cash contributions, with the stipulation that the number of shares is to be increased in the same proportion as the capital stock and with an exclusion of subscription rights to be decided by the Management Board with the approval of the Supervisory Board (Authorized Capital 2011/I). Authorized Capital 2011/I was not utilized and was rescinded by resolution of the shareholders of 30 June 2016.

The Management Board, with the Supervisory Board's approval, is authorized by resolution of the shareholders of 30 June 2016 to raise the capital stock through 31 May 2021 once or multiple times by up to EUR 4,000,000.00 by issuing up to 4,000,000 new no-par-value bearer shares in exchange for cash and/or non-cash contributions, with the stipulation that the number of shares is to be increased in the same proportion as the capital stock. The Management Board may decide to exclude subscription rights with the approval of the Supervisory Board (Authorized Capital 2016/I).

### c) Conditional capital

EUR 4,000,000.00

The capital stock was conditionally raised by up to EUR 4,000,000 by resolution of the shareholders of 9 June 2011 (Conditional Capital 2011/I). The conditional capital serves exclusively to provide shares to holders of warrants and convertible bonds issued by the company based on the authorization of the shareholders of 9 June 2011. In accordance with the terms of the bonds, the conditional capital increase also serves to issue shares to holders of convertible bonds equipped with conversion obligations. Conditional Capital 2011/I was not utilized and was rescinded by resolution of the shareholders of 30 June 2016.

The capital stock was conditionally raised by up to EUR 4,000,000 by resolution of the shareholders of 30 June 2016 (Conditional Capital 2016/I). The conditional capital serves exclusively to provide shares to holders of warrants and convertible bonds issued by the company based on the authorization of the shareholders of 30 June 2016.

d) Capital reserve

EUR 30,824,219.38

As of 31 December 2016, the capital reserve amounted to TEUR 30,824 (previous year: TEUR 30,824).

The Management Board, with the Supervisory Board's approval, is authorized by resolution of the shareholders of 30 June 2016 to issue convertible bonds and/or warrants made out to the bearer with a total value of up to EUR 100,000,000.00 and with a term of no more than 15 years ("Convertible Bonds and/or Warrants") through 31 May 2021 once or multiple times and to provide holders of convertible bonds with conversion rights for up to 4,000,000 bearer shares in the company as specified in the Terms of Warrants and Convertible Bonds (Terms of Bonds) which are to be defined by the Management Board with the approval of the Supervisory Board.

e) Retained earnings	EUR 12,213,279.78
As of 1 January 2016	EUR 6,653,903.55
Appropriation of earnings pursuant to shareholder resolution	EUR -1,200,000.00
Net income in Financial Year 2016	EUR 6,759,376.23
As of 31 December 2016	EUR 12,213,279.78

# Special item for fixed-asset investment grants

The special item for fixed-asset investment grants is reversed in accordance with the useful life of the subsidized investment.

#### Pension reserves

Pension liabilities were measured in accordance with generally accepted actuarial principles using the projected unit credit (PUC) method. The biometric calculation was based on the 2005 G benchmark tables of Prof. Dr. Klaus Heubeck. The measurement was performed based on the following additional assumptions: an actuarial interest rate of 4.00% per annum, a salary trend of 2.75% per annum and a pension trend of 2.00% per annum. Liabilities were discounted at the average market interest rate for the past 10 years (previous year: 7 years) according to Deutsche Bundesbank assuming a residual term of 15 years.

The remeasurement of pension reserves on 1 January 2010 resulted in a difference in the amount of TEUR 4,009; as in previous years, TEUR 267 of this difference (1/15th of the total, in accordance with Article 67(1) Sentence 1 of the Introductory Act to the German Commercial Code) was transferred to pension reserves in the reporting year, so that the remaining deficit as of 31 December 2016 was TEUR 2,138. In accordance with the new rules established by the Accounting Directives Implementation Act, this transfer was recognized under other operating expenses in 2016. The previous year's disclosure (in extraordinary expenses) was adjusted accordingly.

Pension liability insurance policies are pledged and therefore protected from attachment by all other creditors so as to secure direct pension commitments. Accordingly, the liabilities are offset by the corresponding assets, and the associated income and expenses must be netted out. The asset value of pension liability insurance as of the reporting date, TEUR 1,747, is netted out with the settlement value, in the amount of TEUR 23,182, for a net disclosure of TEUR 21,435. Net income from pension liability insurance in the amount of TEUR 130 was recognized under interest and similar expenses. The fair value of the pension liability insurance policies is equal to the asset value, which includes both current premium payments and income from interest earned on the pension liability insurance policy, which changes depending on the insurer's investment results.

Discounting pension reserves at the average market interest rate for the past ten years results in a difference of TEUR 3,561 relative to discounting pension reserves at the average market interest rate for the past seven years. This difference is not available for distribution pursuant to § 253(6) Sentence 2 of the German Commercial Code.

# Other provisions

Other provisions largely consist of personnel obligations (TEUR 2,894) and outstanding invoices (TEUR 1,852).

The anniversary provision is measured in the PUC method using an actuarial interest rate of 3.22% and a salary trend of 2.75%.

### Accounts payable

The breakdown of accounts payable, with residual terms and securities provided, is evident from the statement below:

(amounts from the previous year are indicated in parenthesis)

	Total amount	R	esidual terr	ns	Secured amount	Type of secu- rity
		Less than 1 year	1-5 years	Over 5 years		
	TEUR	TEUR	TEUR	TEUR	TEUR	
Accounts payable to banks	72,724 (82,830)	1,224 (11,330)	32,500 (32,500)	39,000 (39,000)	0 (5,853)	Land charges, chattel mort- gages
Trade payables	12,330 (9,772)	12,330 (9,772)	0 (0)	0 (0)	0 (0)	
Accounts payable to affiliated companies	158 (291)	158 (291)	0 (0)	0 (0)	0 (0)	
Other accounts payable	879 (1,779)	879 (1,779)	0 (0)	0 (0)	0 (0)	
	86,091 (94,672)	14,591 (23,172)	32,500 (32,500)	39,000 (39,000)	0 (5,853)	

Accounts payable to banks consist of loans against borrower's notes obtained at typical market interest rates. Their book value is equal to their market value.

All bank loans other than loans against borrower's notes were repaid in full in 2016.

Accounts payable to affiliated companies result entirely from deliveries and services.

In accordance with HFA 1/1984, disbursed investment grants in the amount of TEUR 853 (previous year) which were formerly recognized as other accounts payable were assigned to the investments category in their entirety on 31 December 2016. These grants pertain to an investment subsidy in the amount of TEUR 4,150 which was approved in September 2013, the first installment of which, in the amount of TEUR 3,150, was paid out on 3 December 2013. The remaining TEUR 1,000 was paid out on 29 December 2015.

# **Disclosures Concerning the Income Statement**

The following deviations with regard to the previous year's data in the income statement arise based on the switch to the Accounting Directives Implementation Act of 3 July 2015:

2015		2015		Difference
(prior to the Act)	TEUR	(following the Act)	TEUR	TEUR
Revenues	151,346	Revenues	152,007	661
Other operating income	2,815	Other operating income	2,154	-661
Other operating expenses	22,429	Other operating expenses	22,696	267
Extraordinary expenses	267	Extraordinary expenses	0	-267
Taxes on income	2,547	Taxes on income	2,547	0
Net income	2,839	Net income	2,839	0

Accordingly, the previous year's income and expense items in the income statement are not comparable with the financial statements for 31 December 2015 (Article 75(2) Sentence 3 of the Introductory Act to the German Commercial Code).

Revenues

Breakdown of revenues by geographical region:

	2016		2015	
	TEUR	%	TEUR	%
Germany	43,009	26.9	42,542	28.0
Rest of Europe	78,335	49.0	73,208	48.2
USA	20,227	12.7	19,710	12.9
Rest of world	18,220	11.4	16,547	10.9
	159,791	100.0	152,007	100.0

#### Breakdown of revenues by division:

	2010		2015	
	2016		2015	
	TEUR	%	TEUR	%
Functional Fillers	109,123	68.3	102,275	67.3
Technical Ceramics	50,092	31.3	49,071	32.3
Other	576	0.4	661	0.4
	159,791	100.0	152,007	100.0

### Other operating income

Other operating income includes income from currency translation in the amount of TEUR 1,026.

Other operating income also includes income from insurance indemnities in the amount of TEUR 68, income from costs charged to third parties in the amount of TEUR 177, income from payments in kind in the amount of TEUR 209 and income from EU aid in the amount of TEUR 66.

#### Other operating expenses

Other operating expenses include expenses for outgoing freight in the amount of TEUR 9,671, sales commissions in the amount of TEUR 3,219, expenses for third-party repairs in the amount of TEUR 2,454, consulting expenses in the amount of TEUR 1,380 and non-period expenses in the amount of TEUR 20.

Other operating expenses also include expenses in the amount of TEUR 267 from the remeasurement of pension reserves in the course of first-time application of the Accounting Law Modernization Act.

#### Other Disclosures

# Disclosures concerning transactions not reported in the balance sheet

In order to improve its liquidity, Nabaltec AG concluded lease agreements with a total expense of TEUR 147 for the year and assigned a total of TEUR 19,979 in accounts receivable to a factor. The transfer of the default risk to the factor as a result of the factoring agreement was offset in 2016 by expenses in the amount of TEUR 226 for execution and advance financing of the factoring arrangement.

#### Other financial liabilities

The following other financial liabilities exist which are of significance for assessment of the financial position:

		31 Dec.	31 Dec.
		2016	2015
		TEUR	TEUR
a)	Liabilities arising from rental, lease, service and consulting		
	agreements	1,643	1,046
	Thereof		
	- maturing in less than 1 year	651	471
	- maturing in 1-5 years	992	462
	- maturing in more than 5 years	0	113
b)	Liabilities arising from investment orders	4,423	5,971
	- maturing in less than 1 year	4,423	5,971
	Total	6,066	7,017
	- thereof to affiliated companies	0	0

#### Contingent liabilities and guarantees

An investment plan was prepared on 9 November 2016 for the realization of a stand-alone solution for the US subsidiary Nashtec LLC. Nabaltec AG has committed to making available the funds necessary for implementation of this investment plan. The amount of the financial obligations in this regard will be as high as TEUR 13,258 (TUSD 14,000) and will extend through 31 December 2017. It is to be expected that these financial obligations will materialize in their entirety.

There were no other contingent liabilities, guarantees or other material litigation for which provisions are not set aside as of the reporting date.

# **Declaration concerning the German Corporate Governance Code**

The company has issued the prescribed declaration in accordance with § 161 of the German Stock Corporation Act on a voluntary basis. The declaration is posted on the company's website, "nabaltec.de," under "Investor Relations/Corporate Governance."

# Auditor's fee

The auditor's fee for the 2016 financial statements (including the 2016 consolidated financial statements) amounts to TEUR 87. The auditor received a fee in the amount of TEUR 12 for other assurance services, a fee of TEUR 44 for tax advisory services and a fee of TEUR 1 for other services.

# Transactions with related companies and persons in terms of § 285 No. 21 of the German Commercial Code

There were no material transactions with related companies and persons which were not executed at typical market conditions.

# Share ownership pursuant to § 285 No. 11 of the German Commercial Code

	Share of capital stock		Shareholders' equity in previous year *)		Earnings in previous year *)		
Direct holdings	in %	in USD	In EUR	in USD	in EUR	in USD	in EUR
Nashtec LLC, Texas (USA)	51.0	210,266.00	162,930.73	1,208,724.00	1,144,625.00	-135,899.00	-122,807.70
Direct holdings	in %	in JPY	In EUR	in JPY	in EUR	in JPY	in EUR
Nabaltec Asia Pacific K.K., Tokyo (Japan)	100.0	10,000,000.00	77,537.41	11,510,331.00	93,193.51	1,510,331.00	12,336.09

<sup>\*)</sup> Shareholders' equity in the previous year denominated in foreign currency is translated at the average exchange rate on the reporting date. Earnings for the previous year denominated in foreign currency are translated at the average exchange rate for the year.

Additional funds in the amount of TUSD 300 were made available to the subsidiary Nashtec LLC in Financial Year 2016.

# Formation of a Japanese subsidiary

In the first quarter of 2016, Nabaltec AG formed a wholly-owned subsidiary in Tokyo, Japan. Nabaltec Asia Pacific K.K. is to engage in marketing and sales for all Nabaltec AG products in Asia, working closely with regional sales partners.

# **Derivative financial instruments**

On 4 October 2011, an interest rate swap was entered into, which took effect on 6 October 2011. The swap was based on a principal amount of TEUR 10,000 and a variable rate of interest based on the 3-month EURIBOR. The fixed and variable amounts are due each quarter on the 6th day of the month, until the term expires on 8 October 2012. The bank has the option to extend the term by one year at a time, though not past 6 October 2016. Due to the expiration of the interest rate swap in 2016, its market value as of 31 December 2016 was TEUR 0 (previous year: TEUR -98). The provision for losses in the amount of TEUR 98 was reversed in the reporting year.

On 23 December 2011, an interest rate swap was entered into, taking effect 30 December 2011, to hedge against changes in the variable 3-month EURIBOR, which had been selected as the interest rate on an existing bank loan. The principal amount of the swap depends on amortization of the loan and was initially TEUR 3,000. Amortization of the principal amounted to TEUR 600 in 2016, as in the year before. The fixed and variable amounts are due at the end of each quarter until the term expires on 30 December 2016. Due to the expiration of the interest rate swap in 2016, its market value as of 31 December 2016 was TEUR 0 (previous year: TEUR -8).

The following interest rate derivatives have been entered into in connection with the loans against borrower's note obtained in previous year in order to hedge against interest risks in connection with variable interest rates based on the 6-month EURIBOR.

Face value in TEUR	Term	Market value in TEUR
31,000	23 April 2015 – 23 April 2020	-1,265
39,000	23 April 2015 – 23 April 2022	-1,865

These derivatives form measurement units with the underlying loans in terms of § 254 of the German Commercial Code. Accordingly, provisions for losses are not to be formed.

In addition, a US dollar currency futures contract was entered into in Financial Year 2016 in order to hedge against foreign exchange risks arising from sale transactions. The derivative had a term of one year and covered monthly sales by the companies in US dollars at fixed exchange rates. The total volume of the transaction was TUSD 12,000.

# **Deferred taxes**

Deferred taxes are measured at a tax rate of 29.13%, comprising the corporate income tax rate, the solidarity mark-up and the trade tax rate.

Item	Book value		Deferred tax		ax
	Book value in commercial balance sheet TEUR	Book value in tax bal- ance sheet TEUR	Difference TEUR	Asset TEUR	Liability TEUR
Deferred tax assets					
Pension reserve	-23,182*	-13,846	-9,336	2,719	
Other provisions	-5,015	-4,543	-472	138	
	-28,197	-18,389	-9,808	2,857	
Deferred tax liabilities					
Trade receivables and other assets	3,091	2,976	115		33
Trade payables	-12,330	-12,331	1		0
	-9,239	-9,355	116		33
Net total				2,824	

<sup>\*</sup> Before adjusting for pension liability insurance

# **Employees**

The average number of workers employed over the year as a whole was as follows:

	2016
	Number
Industrial workers	234
Employees	159
Minimally employed workers	5
	398

In addition, an average of 48 trainees were employed in the Financial Year.

# **Management Board and Supervisory Board**

In accordance with the company's Articles of Association, the Management Board is to consist of at least one person. The number of Management Board members is determined by the Supervisory Board. The Supervisory Board may appoint a Management Board member to serve as Chairman. At the moment, none of the Management Board members have been appointed to serve as Chairman.

The members of the **Management Board** are:

# Mr. Johannes Heckmann

Economic engineering graduate

# Mr. Gerhard Witzany

Commercial graduate

Disclosure of the total remuneration of the Management Board in accordance with § 285 Sentence 1 No. 9a of the German Commercial Code has been waived pursuant to § 286(4) of the German Commercial Code.

# **Supervisory Board**

In accordance with the Articles of Association, the Supervisory Board consists of three members. As of the time the financial statements were prepared, the Supervisory Board had the following members:

# Dr. Leopold von Heimendahl (Chairman)

Retired physicist

# Dr. Dieter J. Braun (Vice Chairman)

Retired chemist

# Prof. Dr.-Ing. Jürgen G. Heinrich

Professor of engineering ceramics

The members of the Supervisory Board received total remuneration in the amount of TEUR 49 for Financial Year 2016.

# Major events occurring after the reporting date

Nabaltec AG has concluded an agreement under which it acquires 49% of shares in the Nashtec LLC joint venture, shares which are currently held by the parent company of Sherwin Alumina Company LLC, Allied Alumina LLC. Sherwin Alumina Company LLC filed for bankruptcy in January 2016 and subsequently discontinued operations and sold all of its major assets to Corpus Christi Alumina LLC as part of a liquidation plan in accordance with Chapter 11 of the US Bankruptcy Code, which was approved by a federal bankruptcy court on 17 February 2017.

Sherwin Alumina Company LLC was the raw materials supplier for Nashtec LLC and had certain claims based on loans which had been provided to Nashtec LLC. Nabaltec AG will now acquire these claims from Corpus Christi Alumina LLC. In addition, Nashtec LLC will acquire an adjoining property, including production buildings and technical equipment, from Corpus Christi Alumina LLC and Glencore Ltd., as well as existing stocks of aluminum hydroxide in order to ensure the supply of raw materials once the stand-alone solution is finalized.

The relevant contracts were signed 17. March 2017 and take effect immediately.

This will allow Nabaltec AG to begin modifications to the production site in Corpus Christi, Texas and ensure the continuation of Nashtec LLC and its operations. Nabaltec AG anticipates a time frame through the end of 2017 for the realization of this stand-alone solution.

Nashtec LLC is expected to resume deliveries to US customers at the start of 2018. In the meantime, the American market will be supplied from Schwandorf. Because of Sherwin Alumina Company LLC's Chapter 11 bankruptcy procedure, Nabaltec AG has refrained from issuing a 2016 revenue and earnings forecast.

The composition of Nabaltec AG's Management Board changed on 1 January 2017. Mr. Gerhard Witzany, a member of the Nabaltec AG Management Board, resigned from the Nabaltec AG Management Board on 31 December 2016 by reason of old age. A third member was added and the two new Management Board members were appointed by the Supervisory Board to five-year terms on 1 January 2017. Alongside the Management Board Chairman and CEO, Johannes Heckmann, Günther Spitzer will be responsible for finance/controlling and commercial services/human resources, CFO, and Dr. Michael Klimes, as COO, will be responsible for production and sales, as well as development and application engineering.

# Proposal for appropriation of retained earnings

Schwandorf, 17 March 2017

Johannes Heckmann

The Management Board proposes that the retained earnings for Financial Year 2016 in the amount of EUR 12,213,279.78 be appropriated as follows: a sum in the amount of EUR 1,200,000.00 will be distributed to shareholders by paying a dividend of EUR 0.15 per share on the 8,000,000 shares with dividend rights for Financial Year 2016. The remainder, in the amount of EUR 11,013,279.78, will be carried forward to new account.

Nabaltec AG	
The Management Board	

Günther Spitzer

Dr. Michael Klimes

# **Independent Auditors' Report**

We have audited the annual financial statements – comprising the balance sheet, the income statement and the notes to the financial statements – together with the bookkeeping system, and the management report of the Nabaltec AG, Schwandorf, for the business year from 1 January to 31 December 2016. The maintenance of the books and records and the preparation of the annual financial statements and management report in accordance with German commercial law are the responsibility of the Company's management. Our responsibility is to express an opinion on the annual financial statements, together with the bookkeeping system, and the management report based on our audit.

We conducted our audit of the annual financial statements in accordance with Section 317 German Commercial Code (HGB) and German generally accepted standards for the audit of financial statements promulgated by the Institute of Public Auditors in Germany (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the annual financial statements in accordance with German principles of proper accounting and in the management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Company and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the books and records, the annual financial statements and the management report are examined primarily on a sample basis within the framework of the audit. The audit includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the annual financial statements and the management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the annual financial statements of the Nabaltec AG, Schwandorf, comply with the legal requirements and give a true and fair view of the net assets, financial position and results of operations of the Company in accordance with German principles of proper accounting. The management report is consistent with the annual financial statements, complies with the legal requirements and as a whole provides a suitable view of the Company's position and suitably presents the opportunities and risks of future development.

Nuremberg, 20 March 2017

# **Deloitte GmbH**

Wirtschaftsprüfungsgesellschaft

(Kiefer) (Graeber)

Wirtschaftsprüfer Wirtschaftsprüferin

[German Public Auditor] [German Public Auditor]

# **Appropriation of distributable profit**

The Management Board proposes that the distributable profit of the 2016 financial year, amounting to EUR 12,213,279.78, will be used as follows:

An amount of EUR 1,200,000.00 will be distributed to the shareholders by payment of a dividend of EUR 0.15 per share on the 8,000,000 non par value shares entitled to dividend payments for the 2016 financial year. The remainder in the amount of EUR 11,013,279.78 will be carried forward.

Schwandorf, April 2017

The Management Board

Johannes Heckmann

Günther Spitzer

Dr. Michael Klimes

# Report of the supervisory board

Ladies and Gentlemen, Dear Shareholders,

Financial Year 2016 was a successful year for Nabaltec AG even though it was marked by the uncertain development of environmental factors for the US subsidiary, Nashtec. Faced with this challenging situation, management and employees were able to ensure continued supply and thus retain the US customers. At the same time, a stand-alone solution was developed, in close consultation between the Management and Supervisory Boards, for the secure positioning of Nashtec LLC. We expect this realignment to be implemented in 2017. We will be closely observing this process, as well as all other strategies and measures for exhausting potential in the target markets in the coming year, and we will continue to work intensively to supervise and advise the Management Board in that regard.

The Supervisory Board duly performed its assigned tasks in Financial Year 2016 in accordance with the law, the Articles of Association and the Rules of Procedure and was routinely informed by the Management Board in detail as to the performance and position of the company. It advised the Management Board in accordance with the underlying information and exercised utmost care in monitoring and supervising the Management Board. The Supervisory Board was involved at an early stage in all decisions of fundamental importance for the company, and was kept fully and directly informed by the Management Board.

Major events, as well as questions relating to strategy, planning, business development, the risk position, risk management and compliance, were considered by the Supervisory Board both on its own and in conjunction with the Management Board. The Supervisory Board voted on the reports and draft resolutions submitted by the Management Board after careful deliberation and review. All transactions requiring approval in Financial Year 2016 were decided positively.

The Supervisory Board of Nabaltec AG expounded on the objectives for composition of the Supervisory Board in 2016, and this addition was published in the Corporate Governance Report.

In the Supervisory Board's estimation, a sufficient number of its members should be considered independent. However, the Supervisory Board reserves the right to approve consulting and employment agreements between individual members of the body and the company if the Management Board and Supervisory Board concur that the conclusion of such an agreement is in the company's interest in that particular case.

In accordance with the German Corporate Governance Code, the Supervisory Board has reviewed the efficiency of its activities and has reached a positive conclusion. The focuses of its review were above all on procedures and the timely and adequate provision of information.

# Financial Year 2016

The Supervisory Board once again opted not to form committees in the past financial year. The Supervisory Board of Nabaltec AG consists of three members, and is therefore of suitable size for all matters to be considered and decided by the full Supervisory Board. No conflicts of interest for individual Supervisory Board members arose in the course of

deliberations or voting by the Supervisory Board, or in the Board's exercise of its supervisory mandate in the 2016 reporting year.

The Supervisory Board met in four regular sessions: on 14 April 2016, on 30 June 2016 following the Annual General Meeting, on 27 September 2016 and on 15 December 2016. No further sessions were held in 2017 until the Supervisory Board meeting in April, in which the Board votes on adoption of the financial statements. All members were present at all meetings in 2016. The members of the Supervisory Board also deliberated in writing and by telephone, and in ten cases resolutions were approved in writing. Among the Board's decisions were resolutions with regard to the composition of the Management Board, the reappointment of Management Board members and the appointment of new members. Resolutions were also adopted concerning adjustments with respect to the goals for composition of the Supervisory Board and the Rules of Procedure for the Supervisory Board, as well as the purchase of real estate.

# Focus of deliberations

Even outside the Supervisory Board meetings, the Supervisory Board was routinely notified of important events of essential importance for assessing the position, performance and management of the company. The company's current situation, the development of the business position, important transactions and key decisions by the Management Board were also the subject of discussions between the Management Board and the Supervisory Board and were addressed in written reports as well. In particular, the Supervisory Board was notified of market trends, the risk and competitive situation, the development of sales, revenues and earnings and the degree to which projections were met in monthly and quarterly reports. To this end, the Chairman of the Supervisory Board maintained a close and routine exchange of information and thoughts with the Management Board.

The following issues were the subject of particularly intensive consideration by the full Supervisory Board in Financial Year 2016:

- the 2015 annual financial statements and consolidated financial statements including the proposal for the appropriation of distributable profit;
- the composition of the Management Board as of 2016/2017;
- corporate governance, particularly the goals for composition of the Supervisory Board:
- the situation of the US subsidiary Nashtec LLC and the preparation of a stand-alone solution:
- planning for 2017 and mid-term planning through 2019;
- investment and financing planning for 2017-2019.

The goals and realization status of innovative projects, the effectiveness of the risk management system, the accounting process in Nabaltec AG and Nabaltec Group, as well as the monitoring of the internal controlling system were also focuses of the Supervisory Board's work in Financial Year 2016.

On 4 March 2016, the joint 2016 Declaration of Compliance with the German Corporate Governance Code was issued by the Supervisory Board and Management Board and has been permanently made available for shareholders on the company's website, www.nabaltec.de. The recommendations of the German Corporate Governance Code as of 5 May 2015 were the subject of intensive discussion in both bodies. Further information about corporate governance at Nabaltec AG can be found in the Corporate Governance Report on the company's website, www.nabaltec.de, in the Investor Relations/Corporate Governance section.

# 2016 annual financial statements and consolidated financial statements

Deloitte GmbH Wirtschaftsprüfungsgesellschaft, Nuremberg, has audited the annual financial statements and management report of Nabaltec AG, which were prepared in accordance with the German Commercial Code, as well as the consolidated financial statements, which were prepared based on the IFRS (International Financial Reporting Standards) pursuant to § 315a of the German Commercial Code, and the consolidated management report, each for 31 December 2016, and has issued an unqualified auditor's opinion.

The Supervisory Board engaged the auditor in accordance with the resolution of the Annual General Meeting of 30 June 2016. The auditor's independence declaration was obtained by the Supervisory Board in advance pursuant to Section 7.2.1 of the German Corporate Governance Code. No circumstances were evident which established doubts as to the auditor's independence. Moreover, the auditor was obligated to immediately notify the Supervisory Board of circumstances which could establish a bias on its part and to report any services it performed in addition to the audit. The focus of the audit for Financial Year 2016 was set on "capitalization of fixed assets" and "valuation of Nashtec LLC."

All documents relating to the financial statements, as well as the auditor's audit reports, were made available to the Supervisory Board in a timely manner for independent review. These documents and the auditor's report were the subject of intensive consideration at the session of 6 April 2017. The auditor was present at this meeting, reported on the key findings of the audit and was available for further questions. Based on its independent review of the annual financial statements, the consolidated financial statements, the management report and the consolidated management report, the Supervisory Board has raised no objections and adopts the findings of the auditor Deloitte GmbH. The Supervisory Board therefore approved the annual financial statements prepared by the Management Board for Nabaltec AG and Nabaltec Group for 31 December 2016. The annual financial statements of Nabaltec AG are therefore adopted.

# Personnel changes in the Management Board

Mr. Gerhard Witzany, a member of the Nabaltec AG Management Board, resigned from the Management Board on 31 December 2016 for reasons of age, while the term of the long-serving Management Board member Mr. Johannes Heckmann was extended by five years, through 24 August 2021. Mr. Heckmann was also named Chief Executive Officer (CEO) effective 1 January 2017. Also on 1 January 2017, two longtime employees of Nabaltec AG were appointed by the Supervisory Board to five-year terms on the Management Board: Mr. Günther Spitzer, who will serve as Chief Financial Officer (CFO), and Dr. Michael Klimes as Chief Operating Officer (COO).

The Supervisory Board would like to thank the Management Board and all the employees for their consistently strong, trusting and constructive collaboration, for the work they performed and for their special commitment last year, and looks forward with confidence to the company's development in the future.

Schwandorf, 6 April 2017

Dr. Leopold von Heimendahl Chairman of the Supervisory Board

# FINANCIAL CALENDAR 2017 Interim Report 1/2017 30 May Annual General Meeting 27 June Interim Report 2/2017 29 August Interim Report 3/2017 28 November

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# Statements relating to the future

This annual financial statements contain statements relating to the future which are based on the Management Board's current estimations and prognosis as well as on information currently available. These statements relating to the future are not to be understood as guarantees of the predicted future developments and results. The future developments and results are rather dependent on a number of risks and uncertainties and are based on assumptions which possibly may prove to be false. We do not accept any obligation to update these statements relating to the future.

# Rounding

Due to computational reasons, rounding differences may appear in the percentages and figures in the tables, graphics and text of this report.







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