

4971 **MEC COMPANY LIMITED**

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**Use core technologies to seize business opportunities
in the IoT era**

◆ **Financial Summary for the First Quarter of the Year Ending March 2017**

In the first quarter, sales were 2,300 million yen (up 115 million yen year-on-year), but the effects of foreign currency exchange rates reduced income by 86 million yen. Looking at a breakdown of sales, chemicals for accounted for 2,185 million yen (up 73 million yen compared with the same period of the previous year), sales of equipments for PCBs were 38 million yen (up 8 million yen year-on-year), and materials for PCBs accounted for 76 million yen (up 36 million yen year-on-year). Gross income was 1,473 million yen (down 9 million yen year-on-year), with revenue falling due to an increase in manufacturing costs such as repair costs and a temporary decrease in the profit margin of our Taiwanese subsidiary.

Selling, general and administrative expenses were 965 million yen (down 21 million yen year-on-year), and the impact of foreign exchange rates meant that income fell 22 million yen. As a result, operating income was 508 million yen (down 12 million yen year-on-year). The impact of foreign exchange rates meant that income fell by 12 million yen. Ordinary income was 467 million yen (down 70 million yen year-on-year). Corporation tax was 110 million yen (down 51 million yen year-on-year), a lower amount due to the impact of exchange rate fluctuations affecting the tax on a subsidiary's reserves and a fall in the Japanese tax rate. Net income was 362 million yen (down 14 million yen year-on-year).

Looking at the consolidated balance sheet, in current assets, the item of cash and deposits was 6,380 million yen (up 1,680 million yen year-on-year) due to an increase in borrowings to construct the Amagasaki Headquarters. Also, in investments and other assets, investment securities came to 346 million yen (down 70 million yen year-on-year) because there was a decline in their market value, and due to the sale of some shares held. In current liabilities, as funds for the construction of the Amagasaki Headquarters, there was long-term debt maturing within one year of 500 million yen, and in fixed liabilities, there was long-term debt of 150 million yen as Amagasaki Headquarters construction funds. In addition, approximately 900 million yen of the previous term's accounts payable for construction of facilities was transferred to bonds and notes payable for plant and equipment. Due to the strong yen, foreign currency translation adjustments came to 381 million yen.

In terms of cash flow, a decrease in income before income taxes and minority interests along with a decrease in trade payables meant that cash flow from operating activities amounted to 63 million yen (down 303 million yen year-on-year). In addition, the net amount of time deposits was reduced and so cash flow from investment activities was minus 106 million yen (up 137 million yen year-on-year). Further, cash flow from financial activities was 1,808 million yen (up 1,966 million yen) because of an increase in debt due to capital investment. As a result, the balance of cash and cash equivalents at the end of the quarter was 5,137 million yen (up 1,186 million yen year-on-year).

◆ **Sales of mainstay chemicals are robust**

A key point in the quarter under review was the overseas sales ratio which was 54.8% (up 0.1 points year-on-year). This percentage becomes 75.6% (68.0% in the previous year) if we include in overseas sales those sales of our chemicals for use overseas that are sold by domestic agents. Sales of the CZ Series came to 1,200 million yen (1,125 million yen in the same period of the previous year), and they accounted for 54.9% of all chemicals sold (up 1.6 points year-on-year). The gross margin was 64.1% (down 3.8 points year-on-year) due to an increase in repair costs and a temporary rise in the costs of the Taiwanese subsidiary.

Looking at the quarterly changes in sales, both consolidated and non-consolidated sales remained unchanged from the third and fourth quarters of the previous year. In terms of operating income, the growth in income was sluggish considering the sales in the quarter under review. The same tendency was seen for ordinary income and net income as operating income.

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Quarterly transitions by product type show that sales of chemicals still account for the overwhelming portion of our total sales.

By type of chemical, sales of copper surface treatment agents came to 2,017 million yen, accounting for the largest part of our sales by far. They are followed by sales of releasing agent of 72 million yen, flux agent of 46 million yen, rust inhibitor of 27 million yen, and sales of others of 22 million.

By category, among chemicals, sales of adhesion promoters such as the CZ Series and V-Bond were 1,325 million yen, sales of etching agents such as the EXE Series were 691 million yen, and sales of other surface treatment agents were 168 million yen. In the quarter under review, there was an increase in sales of the CZ Series of adhesion improving agents, and sales of V-Bond fell, showing the same downward trend as was seen in the fourth quarter of the previous fiscal year. Etching agents saw a downward trend, although sales of the EXE Series were strong, and a factor in this was a fall in their sales for use with flexible substrates, tablets and PCs. Apart from that, sales of AMALPHA were strong.

Looking at net sales of the CZ Series, sales of CZ-8101 were 633 million yen, remaining strong despite a slight decrease from the fourth quarter of the previous fiscal year. Sales of CZ-8100 were down at 203 million yen.

In terms of sales by regional segment, sales in Japan were steady although they saw a slight decrease, coming in at 1,082 million yen. Sales in Asia were 1,031 million yen, and those in Europe were 186 million yen, both showing an increase.

The consolidated earnings forecast for the full year is for sales of 8,900 million yen, operating income of 2,000 million yen, ordinary income of 2,050 million yen, and net income of 1,450 million yen, with no change from the figures announced at the beginning of the year. There were many factors causing an improvement in performance and we must take a careful look at currency movements.

◆Future business developments

Our core technologies are physical adhesion technology (CZ Series, V-Bond), chemical adhesion technology (FlatBOND Series), fine wiring formation technology (subtraction method technology), and surface treatment technology.

Fields in which we are active are all areas where things called devices operate, including the automotive field. In recent years, sales of our products for use in TVs, smartphones and tablets have been increasing. Also, we have been making moves related to Internet infrastructure with an eye on automotive applications, the IoT and a switch to 5G in communication, and we have been carrying out development in many fields. With the advent of the IoT era, the number of devices per person will increase dramatically. From 2020, 5G communication will begin to appear little by little. The Company's operations are related to all fields of networks, infrastructure, and devices, and there is an increasing chance that our core technologies will contribute in the area of ICT which supports the foundation of the IoT.

The fabrication nodes of semiconductor chips are expected to go from the current 14 nanometers to 10 nanometers, and semiconductor packaging will become important for various applications. We have a long track record in packaging, and we will continue to focus on development there in the future.

With regards to flexible substrates, in an increasing number of cases high-density flexible substrates are folded and placed in components with a narrow width. In addition, they are being used in vehicles more and more. A representative of flexible substrate material is rolled copper foil, which is characterized by its outstanding bending performance. We launched the UT Series of etching agents for flexible substrates in June, and they have been well received by customers because they can make a uniform roughened shape even if pieces of copper have different physical properties. This is a completely new technology and we have high expectations for it in the future.

Motherboards are tending to use single in-line package (SiP) packaging. The Company sees SiP as being part of a set with dissemination of FO-WLP (Fan Out Wafer Level Package), a substrate-less package. In the current situation, our CZ Series and EXE Series are being adopted in an increasing number of cases, and we believe there will be more great business opportunities in the future.

We are accelerating development of the CZ Series, which has a high market share for use with smartphones, PCs and tablets, and CZ-8201 will soon be launched on a full-scale basis. Furthermore, we are developing a high-performance roughening type. We have started achieving results in the mass production of flat-type products that achieve chemical adhesion without roughening. In the future, we expect they will be used in areas such as supercomputers and AI, and we are also focusing on their development. The EXE Series of products have won a high market share for use with displays; there are also some companies that have decided to adopt them for HDI substrates in products such as smartphones, and they are starting to have a large positive impact. Their feature is that they are an additive type, so manufacturers can use the EXE Series just by adding them to their current etching agents, and they can help to suppress the amount of capital investment. Electronic substrates are tending to have a higher density, and in some cases a semi-additive method is required. But with the EXE Series it is possible to handle increased density even with the subtraction method. The EXE Series are being used for flat panel displays (FPD), and

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demand is steady as the dissemination of 4K TVs proceeds. We are looking forward to the dissemination of 8K TVs in the future.

FlatBOND products have been adopted in motherboards that need to handle high-frequency communication since they prevent transmission loss.

AMALPHA can join metals such as copper, aluminum and nickel with resin, and reduce the weight of products or allow manufacturers to simplify production processes. It is being adopted for the metal housing of mobile devices, and in the future we want to have it used in automotive modules.

We will start constructing the Amagasaki Headquarters in October 2016 and it is scheduled to be operational in April 2017.

For future business development, we see display-related areas as a business opportunity. We will continue to develop our technology in the resin–metal bonding area. The pace at which technology changes is remarkable in fields related to manufacturing electronic substrates, and so we want to expand business opportunities so that we can cope with such changes. We will continue to focus on globally expanding our operations.

In addition, while enhancing our abilities to develop new products, we want to also improve one of our strengths—our quality assurance system—so that we do not receive complaints from the markets in which we operate.

◆Q&A◆

What products boosted your sales compared with the same period of the previous year?

Our products that saw strong sales were the CZ Series and EXE Series. The CZ Series was steadily used for motherboards and SiP packaging, and the EXE Series began to be used for HDI substrates.

Will your products for SiP and HDI substrates applications continue to sell?

If the CZ Series become package-like items, we expect they will also be adopted for motherboards, and we believe that they have sufficient ability to keep selling.

Was the increase in sales of AMALPHA seen only in some locations?

AMALPHA has been used the most for mobile devices. Sales of it increased because new models of mobile devices were released and the production volume per model increased at some customers. However, because the number of models is small, the sales of AMALPHA tend to increase smoothly rather than suddenly.

What factors caused the increase in overseas exports via distributors?

For South Korea, our products are sold through distributors. And sales of our CZ Series for packages for memory boards were also strong in South Korea.

Was the 13.1% decline in ordinary income year-on-year because there was a difference between the actual and assumed rate of exchange?

We assumed the rate of exchange would be 105 yen to the U.S. dollar. With regard to foreign exchange losses, the decline in ordinary income was due to the difference between the payments of accounts receivable that we recorded in the previous fiscal year and in this year. The yen was still relatively weak at the end of the previous fiscal year, and so the difference between the actual and assumed exchange rate had an impact. It depends on how much the yen exchange rate swings, but we believe that there will be no major impact on the second quarter.

In terms of end use, for what kind application have your products been increasingly adopted?

Smartphones. Previously our products were not used as a process in the manufacturing of HDI substrates, but they have now started to be used there and our performance has improved in those areas.

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The materials for use on the day of this briefing can be viewed at the address below.

<http://www.mec-co.com/en/ir/library/>