### **COMPANY RESEARCH AND ANALYSIS REPORT**

## **Ferrotec Holdings Corporation**

6890 TSE JASDAQ

5-Feb.-2020

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### Summary

# Leading manufacturer of quartz, silicon, ceramic, and other inorganic parts and products. Core customers are major semiconductor production equipment firms

Ferrotec Holdings <6890> (hereafter, also "the Company") manufactures vacuum seals, quartz products, ceramic products, CVD-SiC, ferrofluids, thermo-electric modules, silicon wafers, and other various products, equipment, parts, and materials. The Company also provides cleaning service for various parts to semiconductor production equipment (SPE) manufacturers and silicon wafer polishing.

#### 1. 1H FY3/20 results

In 1H FY3/20, the Company reported ¥41,849mn in net sales (-7.5% YoY), ¥3,566mn in operating profit (-29.6%), ¥2.472mn in ordinary profit (-49.2%), and ¥1,539mn in net profit attributable to parent shareholders (-45.5%). In the mainstay semiconductor and other equipment-related businesses, sales and profits decreased due to deterioration in the business environment. Other segments, including the former solar-powered battery-related segment also experienced a decline in sales and profit. However, in electronic devices, thermal-electric modules for communication equipment trended favorably with an increase in sales and profit.

#### 2. FY3/20 forecast

In FY3/20 guidance, the Company targets ¥85,000mn in net sales (-5.0% YoY), ¥6,500mn in operating profit (-26.0%), ¥4,500mn in ordinary profit (-44.2%), and ¥2,500mn in net profit attributable to parent shareholders (-12.1%). It has downwardly revised the initial forecast of ¥92,000mn in net sales and ¥8,800mn in operating profit. In business segments, the Company expects a decrease in profit for semiconductor and other equipment-related segment and other segments, and an increase in profit for the electronic device segment, with a slight decrease in profits overall. The amount of capital investment has decreased from the initial ¥48,000mn to ¥40,000mn (¥35,953mn in FY3/19), however it will still continue at a high level. Depreciation is expected to be ¥7,000mn (¥5,755mn in FY3/19).

#### 3. Longer-term outlook: Semiconductor industry continues to grow with "Made in China 2025" as a tailwind

Despite that the pace for the semiconductor industry and its manufacturing equipment--Ferrotec's chief clients--has been slowing down, high growth is still expected in the medium to long term with 5G-related investments. Meanwhile, there is also high potential for growth in individual products such as parts cleaning, power semiconductors, and thermo-electric modules. In terms of public policy, the Chinese government's "Made in China 2025" strategy is considered to become a tailwind for the Company's growth. There is vigorous demand for funding in order to achieve growth, however in addition to funding with loans or by issuing shares, the strategy is considering a procurement scheme with a broad perspective that utilizes local capital.



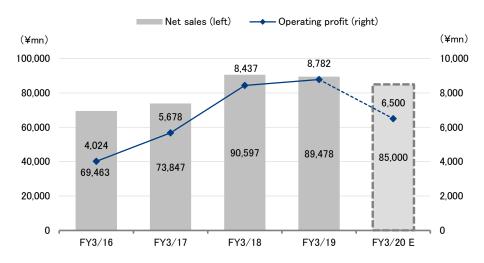
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Summary

#### **Key Points**

- Leading manufacturer of quartz, ceramic, and other inorganic products; mainly supplies the semiconductor industry
- The pace of the semiconductor industry has been slowing down, but capital investment in FY3/20 was high at ¥40bn
- There are many manufactured products with the potential for growth in the medium to long term, and these trends will be worth paying attention to going forward

#### Results trends



Source: Prepared by FISCO from the Company's financial results

### Company profile

## Ferrotec primarily manufactures a wide range of parts and products related to semiconductors

#### 1. Company profile

Ferrotec is a pure holding company with 42 consolidated subsidiaries and 6 equity-method affiliates and 7,408 group employees as of September 30, 2019. It was originally established as US-based Ferrofluidics Corporation's Japanese entity (former Nippon Ferrofluidics Co., Ltd.) in 1980, but later separated from the parent company and has pursued an independent path.

It manufactures vacuum seals, quartz products, ceramic products, CVD-SiC, ferrofluids, thermo-electric modules, silicon wafers, solar-cell silicon, and other various products that are mainly made from inorganic materials, equipment, parts, and materials. It also handles cleaning and consignment processing and assembly of various parts and products for SPE firms.



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Company profile

#### 2. History

The Company has a very unique history. It was initially established as the Japanese entity of a US company in 1980 and mainly conducted import sales of the parent's products (vacuum seals, etc.). In 1982, it built a plant in Chiba Prefecture and began direct production. Ties to the parent company faded as the Company's ratio of self-manufactured products climbed. The Company completely split from the parent in 1987 and embarked on a separate path. It then developed proprietary products, such as HDD laminated seals and ultra-high vacuum ferrofluids (fluorine-based magnetic fluids). It established the first Chinese site (Hangzhou) in 1992 and created a second Chinese production site in Shanghai and changed the company name to Ferrotec Corporation in 1995.

After becoming Ferrotec Corporation, it continued to expand its product lines and businesses, and switched to a holding company system in spring 2017. It is becoming an international company with manufacturing subsidiary companies in nine countries around the world, including in Japan, Europe, the United States, China, and Southeast Asia. For company shares, it registered as a store with the Japan Securities Dealers Association in October 1996, and is now listed in the Tokyo Stock Exchange's JASDAQ Standard market.

### Business overview

## Has wide-ranging business content (products), but semiconductor and other equipment-related business is the main area

#### 1. Business segments

Ferrotec has broad business content because of its proprietary development of many products and acquisitions of numerous companies as subsidiaries through M&A activity, as described above. It has three separate business segments in FY3/20: semiconductor and other equipment-related business (65% of overall sales for the first half of FY3/20, electronic devices business (16.7%), and other business (18.3%). The photovoltaic-related business from the previous fiscal year has been incorporated into the other business segment.

#### 2. Semiconductor and other equipment-related

Ferrotec has the following main business sub-segments:

#### (1) Vacuum seals (9.6% of overall sales in 1H FY3/20)

Vacuum seals function as a rotary manipulator into a vacuum environment using ferrofluid and are utilized in semiconductor, FPD, LED, solar cell, and other manufacturing processes. These are Ferrotec's core products used mainly in semiconductor wafer etching and deposition processes and in the rotary mechanism of FPD panel conveyance robots. They are capable of precisely transferring required power for processing while keeping sealed space separated from the outside.

#### (2) Quartz products (19.6%)

Quartz products are silica glass with very high purity that can withstand heat and chemical changes. Ferrotec's products are primarily utilized in semiconductor manufacturing for the wafer deposition and dispersion process and as jigs and consumables in conveyance and cleaning processes. Quartz products serve in an important capacity in semiconductor manufacturing processes that are becoming more precise and requiring higher purity levels.



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**Business overview** 

#### (3) Ceramics (11.0%)

Ferrotec supplies a variety of ceramic parts with high strength and high purity utilizing the material technologies, production technologies and precision processing technologies that it possesses. Ferrotec's offerings can be categorized as fine ceramics (FC) with robust strength, high purity, and excellent heat resistance and machinable ceramics (MC) that can undergo advanced machine processing. The former are mainly used as parts in semi-conductor manufacturing equipment. In particular, they are vital to the dry-etching method (plasma etchers). The latter are used as parts and jigs in a variety of processing. Demand is growing for use as jigs in the semiconductor inspection process (for wafer probers). Usage in advanced medical equipment that leverages precision processing features is also growing in recent years.

#### (4) Semiconductor wafer processing (10.8%)

Ferrotec handles integrated production from mono-crystal ingots to wafer processing for small-diameter silicon wafers (six inches or less) for the semiconductor industry. It has built global supply operations mainly for volume-output products used by bipolar ICs, discrete circuit applications, and MEMS. It also started production of eight-inch wafers in 2017, and has built a framework to boost volume output for eight-inch wafers, as shall be noted later.

#### (5) Parts cleaning (5.7%)

Equipment parts cleaning business handles cleaning of SPE parts. It was included under "other related business" through FY3/18. This is an area with growth prospects.

#### 3. Electronic devices

#### (1) Thermo-electric modules (15.9%)

Thermo-electric modules are plate-like semiconductor cooling devices (Peltier devices) that utilize the effect of heat transferring from one metal to the other when electric current flows through a junction between two types of metal. These modules are compact and lightweight and do not require freons. Common uses are temperature-control sheets in automobiles and cooling chillers, optical communications, biochemical, air-conditioners, and dryers and other consumer electronics products.

#### (2) Ferrofluids and others (0.8%)

Ferrofluids are a functional liquid material that is magnetically affected by external magnetic fields and is attracted to magnets. The NASA space program in the 1960s developed ferrofluids for the purpose of transporting fuel in a zero-gravity environment. Today they are utilized in speakers, actuators, sensors, recycling separation, and vacuum seals (which are one of Ferrotec's main products). Other businesses include power semiconductor substrates. They are heat-dissipation and insulation substrates that apply thermo-electric module manufacturing technologies and bond a copper circuit board to alumina and aluminum nitride ceramics through a eutectic reaction. These products contribute to downsizing and energy savings in trains, electric-drive vehicles, air-conditioners, and servers and are likely to attract growing demand.

#### 4. Others

Up until the previous fiscal period, this sub-segment included silicon for solar-powered batteries, silicon crystal production equipment, cells, and other sorts of consignment tasks. However, it has already been decided that the Company will move toward phasing out photovoltaic-related business aside from OEM.



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**Business overview** 

#### 5. Features and strengths

#### (1) Pioneer in inorganic materials

The Company has been involved for many years in production and processing of a wide range of inorganic materials, including quartz, silicon, silicon nitride, and silicon carbide (SiC). It hence has accumulated extensive knowhow (material qualities, production method, processing method, etc.) related to these materials. We believe this aspect is a characteristic and strength.

#### (2) Handles production equipment too

Additionally, the Company handles not just materials, but also various types of production equipment. It therefore possesses knowledge related to production equipment as well and offers customers a variety of proposals (solutions), including materials, processed parts, finished products, and manufacturing equipment.

#### (3) Supports one-stop solutions

Furthermore, the Company engages in service businesses, such as cleaning SPE parts (removal, cleaning, reinstallation) and production equipment assembly. Customers can conduct one-stop outsourcing of material supply, parts processing, equipment assembly, and parts cleaning. We think this is an important strength.

#### (4) Trust relationship with major customers

The Company's main customers are global top-class SPE manufacturers because its products are primarily utilized in SPE and semiconductor production processes as explained above. The top three firms in FY3/18 sales were two US-based production equipment firms and a Japanese equipment firm. The Company has supplied these leading SPE manufacturers with products and parts over many years. We believe its deep trust relationships with these customers are assets and strength.

### Business performance

### Semiconductor-related businesses are stalling, operating profit down

#### 1. Review of 1H FY3/20 results

#### (1) Earnings

In 1H FY3/20, Ferrotec reported ¥41,849mn in net sales (-7.5% YoY), ¥3,566mn in operating profit (-29.6%), ¥2,472mn in ordinary profit (-49.2%), and ¥1,539mn in net income attributable to owners of parent (-45.5%). In the mainstay semiconductor and other equipment-related businesses, sales and profits decreased due to deterioration in the business environment. Other segments, including the former photovoltaic-related segment also experienced a decline in sales and profit. However, in electronic devices, thermal-electric modules for communication equipment trended favorably with an increase in sales and profit.

Overall gross margin improved to 33.2% (vs. 30.7% in FY3/19), and gross profit reached ¥13,908mn (+0.2% YoY). On the other hand, while SG&A expenses climbed to ¥10,342mn (up 17.4% YoY) due to expansion of businesses, there was an increase of ¥566mn in R&D expenses in particular, and allowance for doubtful accounts at the Chinese subsidiary rose ¥435mn due to events such as an increase in expenses associated with the move to full-scale operations at the subsidiary after establishment last year. As a result, operating profit was down 29.6%



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#### Business performance

Ferrotec booked capital investments (cash flow base) totaling ¥19,123mn (compared to ¥12,030mn in FY3/19), primarily focused on investment at the Chinese subsidiary, while depreciation costs were high at ¥3,435mn (¥2,652mn).

#### 1H FY3/20 results

(¥mn, %)

	1H F	Y3/19	1H FY3/20					
_	Amount	Composition ratio	Amount	Composition ratio	Change	% change		
Net sales	45,230	100.0	41,849	100.0	-3,382	-7.5		
Gross profit	13,877	30.7	13,908	33.2	31	0.2		
SG&A expenses	8,808	19.5	10,342	24.7	1,534	17.4		
Operating profit	5,069	11.2	3,566	8.5	-1,503	-29.6		
Ordinary profit	4,866	10.8	2,472	5.9	-2,394	-49.2		
Net income attributable to owners of parent	2,826	6.2	1,540	3.7	-1,286	-45.5		
Capital investment	12,030	26.6	19,123	45.7	7,093	59.0		
Depreciation	2,652	5.9	3,435	8.2	783	29.5		

Source: Prepared by FISCO from the Company's results briefing materials

## Increase of tangible fixed assets due to a high level of capital investment

#### (2) Financial condition

In financial standing at the end of 1H FY3/20, the Company reported ¥76,282mn in current assets (down ¥989mn from the end of the previous fiscal year), mainly on decreases of ¥3,469mn in cash and deposits and ¥1,761mn in notes and accounts receivables, partly offset by an increase of ¥1,713mn in inventories. Fixed assets climbed ¥21,868mn from the end of previous fiscal year to ¥107,695mn with additions of ¥24,652mn to tangible fixed assets primarily from capital investments, partly offset by a decrease of ¥2,766mn in intangible fixed assets. Total assets hence grew by ¥20,880mn to ¥183,978mn.

Liabilities rose by ¥21,774mn from the end of the previous fiscal year to ¥135,024mn, mainly on increases of ¥3,976mn in short-term debt, including current portion of long-term borrowings, ¥9,021mn in bonds, and ¥983mn in long-term debt, partly offset by a decrease of ¥2,901 in notes and accounts payable. Net assets were declined by ¥895mn from the end of the previous fiscal year to ¥48,953mn with a decrease of ¥2,071mn in foreign currency translation adjustment, partly offset by gains of ¥1,109mn in retained earnings from net income attributable to owners of parent.

#### 2. Segment overview

In segment results, sales and profits decreased to ¥27,182mn in sales (-1.4% YoY) and ¥2,681mn in operating profit (-47.0%) for mainstay semiconductor and other equipment-related and ¥6,991mn in sales (+18.9%) and ¥1,320mn in operating profit (+7.1%) for electronic devices. The others business booked ¥7,676mn in sales (-34.8% YoY) and a ¥191mn in operating profit (vs. a ¥1,195mn loss a year ago).

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#### Business performance

#### Segment sales and operating profit

(¥mn, %)

	1H FY3/19					
_	Amount	Composition ratio	Amount	Composition ratio	Change	% change
Net sales	45,230	100.0	41,849	100.0	-3,382	-7.5
Semiconductor and other equipment-related business	27,580	61.0	27,182	65.0	-398	-1.4
Vacuum seals	6,704	14.8	4,031	9.6	-2,673	-39.9
Quartz products	7,300	16.1	8,189	19.6	889	12.2
Ceramics	5,302	11.7	4,603	11.0	-699	-13.2
CVD-SiC	1,291	2.9	1,218	2.9	-73	-5.7
EB guns and LED deposition systems	2,458	5.4	1,720	4.1	-738	-30.0
Wafer processing	2,360	5.2	4,502	10.8	2,142	90.8
Parts cleaning	1,615	3.6	2,375	5.7	760	47.1
Quartz crucibles	554	1.2	544	1.3	-10	-
Electronic devices business	5,879	13.0	6,991	16.7	1,112	18.9
Thermo-electric modules	5,451	12.1	6,651	15.9	1,200	22.0
Ferrofluids and others	428	0.9	340	0.8	-88	-20.6
Others business	11,772	26.0	7,676	18.3	-4,096	-34.8
Operating profit	5,069	11.2	3,566	8.5	-1,503	-29.7
Semiconductor and other equipment-related business	5,054	-	2,681	-	-2,373	-47.0
Electronic devices business	1,232	-	1,320	-	88	7.1
Others business	-1,195	-	191	-	1,386	-
Adjustment value	-22	-	-625	-	-604	-

Note: Quartz crucibles had been recorded as photovoltaic-related business in FY3/19, but has switched to other business for FY3/20. Source: Prepared by FISCO from the Company's results briefing materials

The status of the main sub-segments is as follows.

#### (1) Vacuum seals business

Sales were ¥4,031mm (-39.9% YoY). For semiconductor manufacturing equipment (mainly for the vacuuming process), primarily memory-related products fell significantly, and although there were signs of a recovery in OLEDs for the FPD market, it did not tie into orders. Processing on commission was also weak leading to a significant drop in profits.

#### (2) Quartz products

Sales were brisk at ¥8,189mn (+12.2% YoY). Semiconductor capital investments were weak including for memory-related products, however the demand for quartz consumables from semiconductor end users (device manufacturers) was comparatively strong and the Company secured an increase in profits.

#### (3) Ceramic products

Sales were ¥4,603mn (-13.2%). In machinable ceramics, while sales of semiconductor inspection jigs were robust inside and outside Japan, semiconductor inspection jig materials for the overseas market were on a downturn. In fine ceramics, sales were sluggish for parts for semiconductor equipment both in Japan and overseas.

#### (4) Wafer processing and parts cleaning

Sales for wafer processing nearly doubled to ¥4,502mn (+90.8% YoY) with expansions to production capabilities. However, sales of mainstay 6-inch wafers were softer compared to the previous quarter. There was an adjustment to demand for the newly launched 8-inch wafers in industrial equipment, which led to struggling sales. Sales for equipment parts cleaning\* trended positively to ¥2,375mn (+47.1% YoY).

<sup>\*</sup> The Company booked "parts cleaning" under "others" through FY3/18 and under "semiconductor and other equipment-related business" from FY3/19.





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#### Business performance

#### (5) Thermo-electric module products

Sales for the segment were ¥6,651mn (+22% YoY). Temperature-controllable seats for automobiles were sluggish, but products for communications equipment and biotech in China were firm. Power substrates also had a 113% increase in sales year on year.

#### 3. Major capital investment

Capital investment in the first half of FY3/20 was ¥19,123mn (¥12,030mn in the previous year). Major investment included approximately ¥9,000mn in production facilities for large-diameter wafers (8-inch and 12-inch), in addition to production facilities to handle regular updates and increased production at a scale of ¥5,000mn to ¥6,000mn. As stated below, these sorts of facility investments are expected to be held back after FY3/21 in light of current market conditions.

### **Business outlook**

### Expecting slowdown in SPE industry business, but continuation of sales gains in wafer processing and equipment parts cleaning

In FY3/20 guidance, the Company targets ¥85,000mn in net sales (-5.0% YoY), ¥6,500mn in operating profit (-26.0%), ¥4,500mn in ordinary profit (-44.2%), and ¥2,500mn in net profit attributable to parent shareholders (-12.1%). It has downwardly revised the initial forecast of ¥92,000mn in net sales and ¥8,800mn in operating profit. In business segments, the Company expects a decrease in profit for semiconductor and other equipment-related segment and other segments, and an increase in profit for the electronic device segment, with a slight decrease in profits overall.

The amount of capital investment has decreased from the initial ¥48,000mn to ¥40,000mn (¥35,953mn in FY3/19), however it will still continue at a high level. Depreciation is expected to be ¥7,000mn (¥5,755mn in FY3/19).

#### FY3/20 forecast

(¥mn, %)

	FY3/19		FY3/20 E			
	Amount	Composition ratio	Amount	Composition ratio	Change	% change
Net sales	89,478	100.0	85,000	100.0	-4,478	-5.0
Semiconductor and other equipment-related business	57,026	63.7	54,485	64.1	-2,541	-4.5
Electronic devices business	12,897	14.4	13,300	15.6	403	3.1
Others business	19,555	21.9	17,215	20.3	-2,340	-12.0
Gross profit	27,137	30.3	27,405	32.2	268	1.0
SG&A expenses	18,354	20.5	20,880	24.6	2,526	13.8
Operating profit	8,782	9.8	6,500	7.6	-2,282	-26.0
Ordinary profit	8,060	9.0	4,500	5.3	-3,560	-44.2
Net income attributable to owners of parent	2,845	3.2	2,500	2.9	-345	-12.1
Capital investment	35,953	-	40,000	-	4,047	11.3
Depreciation	5,755	-	7,000	-	1,245	21.6

Note: Quartz crucibles moved from the photovoltaic-related segment to the semiconductor and other equipment-related segment in FY3/20. Source: Prepared by FISCO from the Company's results briefing materials



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### Medium- to long-term growth strategy

At the moment, the target of ¥12.5bn in operating profit in FY3/22 remains unchanged.

Going forward, the Company will diversify its methods of fund procurement

#### 1. Overview of medium-term management goals: Progress and outlook

To achieve medium- to long-term growth, Ferrotec announced its medium-term management goals in May 2019, with FY3/22 set as the final year. It set ¥120-130bn in net sales, ¥12-13bn in operating profit, over 10% in operating margin, over 10% in ROE, over 6% in ROIC, and an equity ratio of over 40% as the quantitative targets to reach in FY3/22.

There have been no changes to these target figures at the moment, Ferrotec has taken into account that the brakes are being applied on the mainstay semiconductor and other equipment-related business, stating that "going forward, it may become necessary to revisit these targets while observing the current situation, and we plan to clarify the details at the time of the announcement of financial statements around May 2020." The following are the current trends and future outlooks in line with this comment.

#### 2. Outlook for the semiconductor industry: Expected recovery after 2020

The global semiconductor manufacturing equipment market and industry including China and the trajectory of the wafer market are what will have the biggest impact on the Company's business performance. Although the current business environment at the time of this report remains harsh, these are said to be growth markets for the medium to long term. According to the semiconductor and materials industry group SEMI (formally Semiconductor Equipment and Materials International), despite that investment into semiconductor manufacturing equipment (wafer processing, equipment for pre-processing) in FY3/19 by semiconductor manufacturers had declined 14% year on year to \$53bn, the group announced that it expects the market to recover in 2020 with a 27% increase to \$67bn.

SEMI also announced an annual forecast for the shipping area of silicon (Si) wafers for semiconductors in September 2019. According to this announcement, shipping area in 2019 is expected to have declined by 6% compared to 2018, which had exceeded previous records. However, the group estimates that shipping area is expected to turn toward growth once more in 2020, and in 2022 will have a new record of 12,785 million square meters. The person in charge of market research statistics at SEMI stated that "the total shipping area in 2019 likely declined to address inventory accumulation and sluggish demand. However, the market will stabilize in 2020 and return to a pace of growth in 2021 and 2022."

#### 3. Business fields in which growth can be expected to continue

#### (1) Parts for semiconductor manufacturing equipment

Demand depends on the production of manufacturing equipment, but there has been an increase in Chinese manufacturers in addition to major global companies adopting these products, and FY3/20 and FY3/21 are expected to continue to trend favorably.



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Medium- to long-term growth strategy

#### (2) Thermo-electric modules

Demand has been increasing as the world moves toward full-scale operations for 5G. Aside from this trend, new applications for thermo-electric modules in automobiles, medical technology, and consumer products has been increasing, and continued growth is expected for FY3/20 and FY3/21. Growth for these products looks promising for the medium to long term.

#### (3) Parts cleaning

This segment became a sub-segment under the semiconductor and other equipment-related business from FY3/19, and has been steadily expanding since then. In FY3/20 in particular, Ferrotec has been setting up new equipment and has gained strong trust from major semiconductor equipment manufacturers including in the United States. There is also significant potential for this sub-segment in the China market.

#### (4) Power semiconductor substrates

Demand for power semiconductors has been expanding in response to the global trend of curbing power consumption. In line with this trend, the Company will invest in not only in the existing aluminum substrates (DCB), but also silicon nitride substrates (AMB) going forward. At present, the new plant in Jiangsu is expanding its capabilities in addition to the production systems at the Shanghai and Hangzhou plants, which solely produce DCB substrates at 600,000 units per month.

#### 4. Important measures to which Ferrotec is placing its focus

#### (1) Acceleration of domestic production in China

The Chinese government announced the "Made in China 2025" plan with the goal of having 40% of semiconductors manufactured domestically by 2020 and raised to 70% by 2025, and domestic production in China has been gradually accelerating in line with this plan. Amidst this background, the Company has already completed construction on a new wafer plant in Zhejiang on November 2019, and approximately 450 people from prominent manufacturers in the area and regional government officials attended the commemorative ceremony for completion, with a vibrant exchange of opinions regarding China's movements in domestic production by knowledgeable individuals at the "China Semiconductor Industry Forum" held in that same afternoon.

#### (2) Wafer investment: Toward a flexible production and sales system that meets demand

In FY3/20, the initial plan was to set up a system for early mass production of 8-inch wafers (with 350,000 units produced per month). However, the plan for capital investment is being reviewed in light of current demand, and production has been held back. In terms of sales, the Company is considering shifting to a system in which it can sell independently, in addition to its collaboration with GlobalWafers Co., Ltd., a major Taiwanese manufacturer.

#### (3) Capital investment plans and fund procurement scheme

In accordance with the above situation, the total amount of capital investment for FY3/20 has been reduced from the initial plan of ¥48,000mn to ¥40,000mn. The capital investment plan for FY3/21 was also initially set at approximately ¥12,000mn, but Ferrotec is now currently investigating a new capital investment plan to account for holding back production (approx. ¥8,000mn).

Furthermore, in the funding plan for these investments, the Company is investigating entry into local capital in China (joint investment in local funds, subsidies from local governments, etc.) and has adopted a policy of implementing a procurement scheme with a wide range of choices in addition to the regular issuance of debt, company bonds, and shares.



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### Shareholder return policy

## Near-term priority on aggressive capital investments, though likely to raise dividends in the future

The Company pays dividends as its shareholder return policy. The FY3/19 annual dividend was ¥24, and it plans to pay ¥24 again in FY3/20 (35.6% estimated dividend payout ratio). We think the Company is likely to give priority to retained profits (capital investments) for the next few years because of its large capex budget as explained above. Nevertheless, since the new medium-term management plan outline dated May 27, 2019 lists "review of dividend hikes as profits increase," we think the Company is likely to raise the dividend when earnings improve.



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