# Helios Techno Holding Co., Ltd.

## 6927

Tokyo Stock Exchange First Section

## 18-Feb.-2019

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# Summary

## Steady progress was made in existing businesses The Company aims to enter the semiconductor domain through M&A and business alliances

Helios Techno Holding Co., Ltd. <6927> (hereinafter, also "the Company") was formed in 2009 as a result of a business integration and business acquisition, including a renaming, undertaken by the former PHOENIX Electric Co., Ltd. It is now a pure holding company due to a corporate split. The Company has three businesses: the Lamp Business, the Manufacturing Equipment Business, and the Human Resource Service Business.

#### 1. FY3/19 1H profits were well above initial forecast

In FY3/19 1H, the Company reported net sales of ¥12,478mn (up 9.8% YoY) and ¥1,571mn in operating profit (down 7.9%), as sales increased while operating profit declined. Results were positive, as although net sales were ¥222mn less than the initial forecast, operating profit exceeded the initial guidance by ¥671mn. The shortfall in net sales was due to the fact that the timing of booking sales for certain deals was pushed back to 2H. Meanwhile, there were three reasons for the upward swing in profits: 1) the upswing in conjunction with the additional needs related to used equipment relocations; 2) the upswing in association with changes in specifications for MLS (Multi Lamp System: light source units for exposure equipment); and 3) the reversal of warrantee reserves for equipment delivered in the previous fiscal year.

#### 2. Earnest promotion of M&A and business alliances eyeing entry into the semiconductor domain

Up until now, the Company has engaged in the Manufacturing Equipment Business based on printing technologies, and has developed and sold alignment layer manufacturing equipment, MLS, HRPs (high resolution inkjet printers) and other products. Product development is progressing smoothly in these businesses, and going forward even more growth is expected. However, the Company's existing Manufacturing Equipment Business primarily supplies to the FPD (flat panel display) industry, and over the long term there is a risk that demand could peak out. In response to this risk, the Company is aiming to strengthen the business related to semiconductor manufacturing equipment. Currently, the Company is handling the relocation of used equipment, but because used equipment procurement lacks stability in nature, the Company is exploring its options and considering strategies for future business development, including new equipment. As a part of this, the Hyogo Prefecture-based Company has solidified its strategy of engaging more proactively than before in M&A and business alliances, and has opened an office in Tokyo as a site for collecting information.



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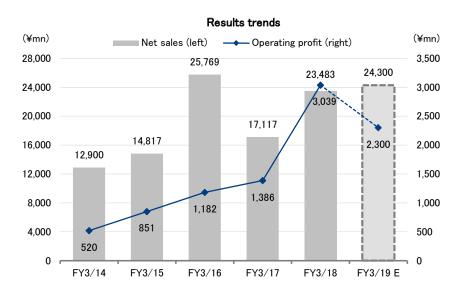
Summary

#### 3. Upward revisions to FY3/19 full-year outlook

The Company forecasts lower earnings on higher sales for FY3/19, and is projecting net sales of ¥24,300mn (+3.5% YoY) and operating profit of ¥2,300mn (-24.3%). Based on the progress through the end of 1H, the operating profit forecast was upwardly revised by 21.0%, but operating profit will still decline YoY due to the temporary high level of profit posted in the previous fiscal year. In terms of the actual conditions of the Company's business, in the Manufacturing Equipment Business (which is the Company's source of revenue), following the development of HRPs in the previous fiscal year, the Company has completed the development of a new product, and this is expected to contribute to earnings going forward. Both the used equipment relocation and maintenance businesses continue to grow steadily. In the Lamp Business, the Company has successfully developed a super-wide-band LED. Currently, the Company is making progress on software and application development, and is preparing to commercialize the product in a few years. Overall, the Company is making steady progress on areas of organic growth, and how the Company uses M&A and business alliances to add new businesses will be a focus of attention going forward.

#### Key Points

- The holding company is spearheading the effort to quickly realize M&A and strategic alliances
- · Expecting quick launches of high-resolution PI printers and curved surface printing technology
- The Company has announced the development of the world's first super-wide-band LED, and aims to systematize and sell it



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



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## **Business overview**

## Operates three segments, earnings mainly from FPD production equipment (alignment layer manufacturing equipment, HRPs, and others)

#### 1. Business overview

The Company is a pure holding company with six subsidiaries\* including three core operating companies: PHOENIX Electric Co., Ltd., which handles the Lamp Business; Nakan Techno Co., Ltd., which handles the Manufacturing Equipment Business, and Nippon Gijutsu Center Co., Ltd., which handles the Human Resource Service Business. The Company has three business segments: the Lamp Business, the Manufacturing Equipment Business, and the Human Resource Service Business.

\* Effective December 1, 2018, the Company made Technolink, which develops, designs, and produces automation equipment, a subsidiary.

The Manufacturing Equipment Business is the primary source of earnings and mainly supplies alignment layer manufacturing equipment, light source units for exposure equipment, and other equipment used on LCD panel production lines. Additionally, while HRPs, which rapidly increased sales as a new product in FY3/18, have a very wide range of potential applications, HRPs delivered during FY3/18 went toward OLED production. Taking this into account, the Company could be described as an FPD production equipment manufacturer.

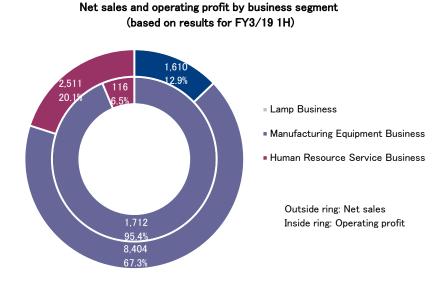
Company	History	Principle products and services	Business segment allocation
Helios Techno Holding	Changed name in 2009 from the former PHOENIX Electric, established in 1976	Pure holding company	-
PHOENIX Electric	Established in April 2009 through a corporate split of Helios Techno Holding	Manufacture and sales of lamps for various applications, (projectors, automobiles, illumination, LED lamps, light sources for photolithography equipment) and photolithography equipment light source units	Lamp Business Manufacturing Equipment Business
LUX	Established in 1991 as a sales company of PHOENIX Electric	Sale of PHOENIX Electric products and various products of major Japanese lighting manufacturers, maintenance operations	Lamp Business
Nippon Gijutsu Center	Established in 1967. Started with development and manufacture of industrial equipment and developed into human resources dispatch services. Merged with KANSAI GIKEN Co., Ltd. in 2013. Absorbed group company Techno Provider on April 1, 2015.	Industrial equipment (such as inspection equipment) manufacture, design contracting, IT business technician dispatch and human resources service, nursing care business	Human Resource Service Business Manufacturing Equipment Business
Nakan Techno	Established in 1937 as Nakanishi Tekkojo Co., Ltd. Started from manufacture of printing machinery developed into LCD alignment layer coating equipment. Received the business in 2009.	Manufacture and sales of various printing equipment LCD alignment layer coating equipment, touch-screen panel insulation coating equipment; used manufacturing equipment transactions	Manufacturing Equipment Business
Leadtech	Converted to a subsidiary of Nakan Techno in October 2016	Engineering, manufacturing and installation of manufacturing equipment	Manufacturing Equipment Business

#### Division of Group companies and business segments

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

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**Business overview** 



Note: Both net sales and operating income profit are broken down from non-adjusted figures. The Lamp Business segment profit was an operating loss of ¥16mn, and is not included in the graph. Source: Prepared by FISCO from the Company's financial results and results briefing materials

## Sales of light source lamps for exposure equipment steadily growing

#### 2. Overview of Lamp Business

PHOENIX Electric and its subsidiary LUX CO., Ltd. handle the Lamp Business. PHOENIX Electric products are separated into two large categories: various lamps such as projector lamps, halogen lamps, LED lamps, light source lamps for exposure equipment and others, and the MLS, which integrates light source lamps for exposure equipment and control equipment. Lamps (including replacement light source lamps for exposure equipment) comprise the Lamp Business, while MLS unit shipments are booked under the Manufacturing Equipment Business.

Recently, light source lamps for exposure equipment for MLS have been playing an increasingly important role in the Lamp Business. Photolithography equipment is used in the lithography process for manufacturing color filters, an important component in LCD panels. While specialty manufacturers make photolithography equipment, the Company ships its MLS to the manufacturers. The Company currently makes exclusive deliveries to the top domestic equipment manufacturer. Light source units benefit from replacement demand because of limits on the lifespan of lithography equipment light sources. Replacement demand continues to grow at a healthy pace thanks to the Company's MLS build-up and high operating rates on LCD panel production lines.

General-purpose lighting includes halogen lamps, LED lamps and other light source types. Demand is shifting to LED products that have longer lives and offer energy-saving benefits. Helios Techno is similarly experiencing growth in LED lamps paired with contraction of halogen lamps. The Company purchases LED chips from external suppliers and manufactures LED lighting products in-house. Projector lamps are for projectors widely utilized at conferences and in school education. Replacement demand continues to offer a market in this business.



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Business overview

## FPD production equipment is core business The Company is focusing on increasing revenues from services, including used plant relocations, repairs, and maintenance, and aims to enter the semiconductor domain over the medium term

#### 3. Overview of Manufacturing Equipment Business

The Manufacturing Equipment Business consists of products supplied by Nakan Techno and Leadtech Co., Ltd, above-mentioned MLS from PHOENIX Electric, and power device testers and other testing systems from Nippon Gijutsu Center. Nakan Techno's (including Leadtech's) products and services have four sub-segments: flexographic printers, plants, new equipment (HRPs), and others. (MLS business was already covered earlier, and Nippon Gijutsu Center's testing systems income is still limited.)

A leading product in flexographic printers is alignment layer manufacturing equipment for LCD panels using flexo printing technology. The two different formats utilized in alignment layer manufacturing equipment are flexo printing technology and inkjet printer technology, and Nakan Techno is the only manufacturer of flexo-printer alignment layer manufacturing equipment. It previously supported Generation 8.5 mother glass as the largest size, but by FY3/18 the Company succeeded in developing equipment supporting Generation 10.5 panels. Going forward, we will pay attention to how the Company is able to increase sales of equipment supporting Generation 10.5 mother glass while keeping equipment supporting Generation 8.5 mother panels as the mainstay product.

The plants business brokers, transports, and relocates used LCD manufacturing equipment. Strong demand exists in China to purchase used production equipment inexpensively and use them to lower LCD panel production costs. Leadtech's strength is its wide range of technology and experience related to device transportation and installation in areas other than equipment manufacturing.

The newest addition to the Manufacturing Equipment Business is HRPs. These products utilize a variety of printing technologies, such as inkjet and gravure methods, to realize high resolution printing. Currently, the Company is developing high-resolution PI printers and establishing curved surface printing technology.

The "others" sub-segment includes supply of consumables for manufacturing equipment delivered in the past, and maintenance, repairs, and upgrades of such equipment. Cumulative sales of the Company's manufacturing equipment have risen to well above 50 units as of the end of FY3/17, and with sales of 60 HRPs in FY3/18, the cumulative total has risen to over 100 units.



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#### Business overview

Relationship diagram for business segments and manufacturing companies								
Operating company	Products	Business segment						
LUX PHOENIX Electric	Lamps (LED lamps, lighting lamps, light source lamps for exposure equipment, etc.	Lamp Business						
	Light source units for exposure equipment (MLS)							
Nakan Techno Leadtech	Alignment layer manufacturing equipment, high resolution inkjet printers Used manufacturing equipment Repair, maintenance, etc.	Manufacturing Equipment Business						
	Power device testers							
Nippon Gijutsu center	Design subcontracting, engineer dispatches,	Human Resource						
	worker dispatches, nursing care, etc.	Service Business						

Source: Prepared by FISCO from the Company's materials

## Developing engineer and worker dispatch business with a locallyoriented approach

#### 4. Overview of Human Resource Service Business

The Human Resource Service Business is operated by Nippon Gijutsu Center. Helios Techno had multiple human resource service companies in its group until Nippon Gijutsu Center absorbed KANSAI GIKEN Co., Ltd. through a merger in November 2013 and also absorbed Techno Provider Co., Ltd. through a merger in April 2015. As a result of Technolink becoming a subsidiary in December 2018, it is now under a two-company system.

Human resource services include dispatch of manufacturing engineers, dispatch of workers, design subcontracting, and nursing care. Dispatching services for manufacturing engineers and workers are the business' primary income sources. The sales strategy is based on a locally-oriented business model. Based on a slogan of expanding broadly from a small area, it emphasizes building operations that expand the customer base in areas nearby existing customers and facilitate concentrated supply of dispatched workers. The primary aim, of course, is improving efficiency.

The Company plans to pursue M&A opportunities in the Human Resource Service Business. The dispatching industry is struggling to secure human resource, and the Company sees appeal in M&A-led expansion because of opportunities to acquire both the human resource and the sales base. In line with its locally-oriented business model, the Company plans to seek M&A opportunities with companies based in regions that can readily obtain synergies with existing customers.



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# Results trends

## Sales up and profits down, but profits still higher than initial forecast

#### 1. Review of FY3/19 1H

The Company posted higher sales but lower income in FY3/19 1H, reporting ¥12,478mn in net sales (up 9.8% YoY), ¥1,571mn in operating profit (down 7.9%), ¥1,575mn (down 4.7%) in recurring profit, and ¥1,110mn (down 5.9%) in profit attributable to owners of parent.

In its announcement of 1H results, the Company made an upward revision to its full-year forecast for FY3/19. Net sales forecast was lowered due to the impact of the change in the timing of sales, but operating profit forecast was increased by 21.0%, from the initial forecast of ¥1,900mn to ¥2,300mn.

#### Review of FY3/19 1H results

						(¥mn)	
	FY3/18			FY3/19			
	411		1	H		Full-year	D
	1H results	Forecast	YoY	Results	YoY	forecast	Progress
Net sales	11,362	12,700	11.8%	12,478	9.8%	24,300	51.4%
Operating profit	1,705	900	-47.2%	1,571	-7.9%	2,300	68.3%
(Operating margin)	15.0%	7.1%	-	12.6%	-	9.5%	-
Recurring profit	1,654	900	-45.6%	1,575	-4.7%	2,300	68.5%
(Recurring margin)	14.5%	7.1%	-	12.6%	-	9.5%	-
Profit attributable to owners of parent	1,180	600	-49.2%	1,110	-5.9%	1,630	68.1%
(Net income ratio)	10.4%	4.7%	-	8.9%	-	6.7%	-

Note: "Progress" is the ratio of 1H results to the full-year forecast.

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

In FY3/19 1H, the business environment did not provide much cause for optimism, as there were concerns about the impacts of the U.S.-China trade friction as well as from the maturation of the smartphone market. Because the main markets for the Company's mainstay Manufacturing Equipment Business is capital investment for LCD and OLED panels, there has been concern about the impacts of the external environment. However, in FY3/19 1H the Company achieved an 8.6% YoY increase in net sales in this segment as it steadily increased sales of products such as flexographic printers for alignment layers and MLS. Also, the Company posted a 21.8% YoY increase in sales in the Human Resource Service Business, due to the increase in the number of workers dispatched, and overall net sales rose by 9.8% YoY.

In terms of profits, operating profit increased significantly in FY3/18 as a result of the large amount of orders received and deliveries for HRPs, and the Company initially expected a YoY decline in FY3/19 due to the recoil effect. However, in FY3/19 1H, operating profit significantly exceeded the initial forecast.

The Company has given the following three reasons for this better-than-expected operating profit: 1) an increase in profit due to the fact that demand from clients for upgrades was added in association with used equipment relocation projects; 2) deliveries of MLS went as planned, while changes to specifications of exposure equipment resulted in additional deliveries of light sources, resulting in higher profits; and 3) higher profits due to the reversals warranty reserves on the large number of products delivered in the previous year.



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Results trends

## All three business segments posted increases in revenues In terms of profits, the drop in operating profit in the Manufacturing Equipment Business was smaller than expected

#### 2. Earnings by business segment

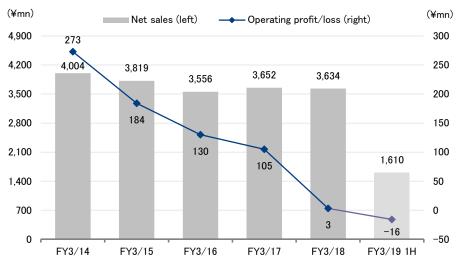
Detailed results by business segment

				(¥mn)
		FY3/18	FY3/	19
			1H	
		1H results	Results	YoY
	Lamp Business	1,592	1,610	1.1%
	Manufacturing Equipment Business	7,738	8,404	8.6%
Net enlag	Human Resource Service Business	2,060	2,511	21.8%
Net sales	Subtotal	11,392	12,525	9.9%
	Adjustment	-30	-47	-
	Total	11,362	12,478	9.8%
	Lamp Business	-6	-16	-
	Manufacturing Equipment Business	1,827	1,712	-6.3%
0	Human Resource Service Business	94	116	24.1%
Operating profit	Subtotal	1,915	1,812	-5.3%
	Adjustment	-209	-241	-
	Total	1,705	1,571	-7.9%

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

#### (1) Lamp Business

In FY3/19 1H, Lamp Business sales increased slightly, while the segment's operating loss grew. The segment's sales rose 1.1% YoY to ¥1,610mn, and the segment posted an operating loss of ¥16mn (versus an operating loss of ¥6mn in the same period of the previous fiscal year).



#### **Results in the Lamp Business**

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



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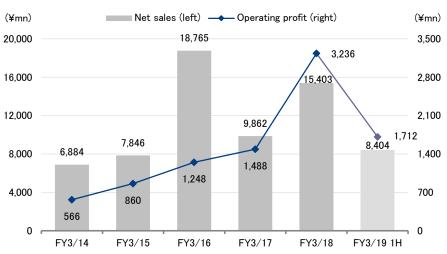
#### Results trends

MLS are included in the Manufacturing Equipment Business, so the product lineup in the Lamp Business comprises MLS light source lamps for repairs, projector lamps, halogen lamps, and LED lamps. Sales of light source lamps for MLS are on the increase due to the growth in the number of MLS already delivered. On the other hand, however, competition is fierce for lighting lamps, and the contraction trend in projector lamps continued, and both combined to counteract the growth in light source lamps for MLS. This continued in FY3/19 1H, resulting in the slight 1.1% YoY increase in sales.

In terms of operating profit, the large decline in profitability in FY3/18 due to the drop in the general-purpose lighting lamp manufacturing plant's operating rate had a lasting impact in FY3/19 1H, and we believe that this led to the operating loss in FY3/19 1H.

#### (2) Manufacturing Equipment Business

In FY3/19 1H, Manufacturing Equipment Business sales increased 8.6% YoY to ¥8,404mn and operating profit declined 6.3% to ¥1,712mn.



#### **Results in the Manufacturing Equipment Business**

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

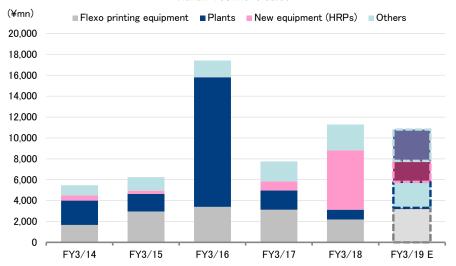
In FY3/18, both sales and profits soared due to the large amount of orders received and the posting of sales for new HRPs. The Company had been expecting a recoil decline in FY3/19, but in FY3/19 1H the segment posted an increase in sales, and the dip in operating income was only 6.3% (¥115mn), which was smaller than expected. As mentioned earlier, the fact that all three factors pushing up operating profit in FY3/19 1H were related to the Manufacturing Equipment Business caused the decline in operating profit in this segment to be only minor in extent.



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#### **Results trends**

Subsidiary Nakan Techno handles the core of the Manufacturing Equipment Business. This includes four sub-segments: flexo printing equipment led by alignment layer manufacturing equipment, new equipment led by HRPs which grew significantly in the previous fiscal year, plants (used equipment relocation) and others (repair, maintenance, and upgrades to existing equipment). For FY3/19, the Company expects a large decline in the new equipment sub-segment, but expects all other sub-segments to post increases in sales, and therefore is forecasting a slight decrease in net sales. In FY3/19 1H, each sub-segment generally performed as expected. With respect to HRPs, the Company was expecting to receive orders for and sell 10 units in the entire FY3/19, but it was able to receive orders for 10 units during FY3/19 1H.



Nakan Techno's sales

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

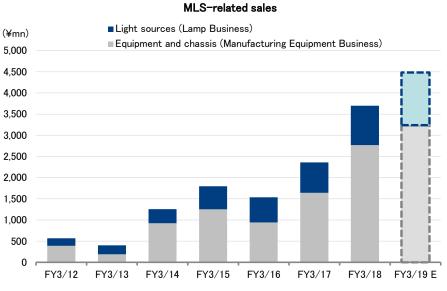
Within the Manufacturing Equipment Business, for MLS-related net sales, sales of MLS and light source lamps for repairs have both have been growing at an increasingly fast pace over the past few years. For the full year FY3/19, the Company is forecasting profit to increase approximately 21% YoY to roughly ¥4,500mn, and results for FY3/19 1H were on track with that forecast.

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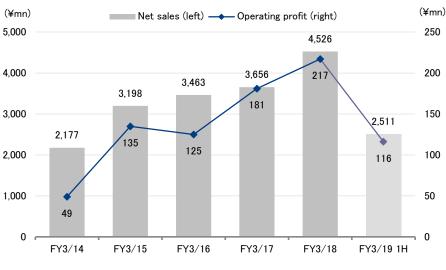
#### Results trends



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

#### (3) Human Resource Service Business

In FY3/19 1H, Human Resource Service Business sales increased 21.8% YoY to ¥2,511mn and operating profit increased 23.4% to ¥116mn.



#### Results in the Human Resource Service Business

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

The Company engages in engineer dispatch, design subcontracting, and the manufacturing engineer dispatch business with a locally-oriented approach through subsidiary Nippon Gijutsu Center. Amid Japan's increasingly severe problem of manpower shortages, net sales in FY3/19 1H steadily increased due to the rise in the number of dispatched workers.



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#### Results trends

Although the entire personnel dispatch services industry is seeing shrinking margins due to the increase in personnel acquisition costs (dispatch unit costs), in FY3/19 1H the Company succeeded in maintaining roughly the same level of profit margin as in the year-earlier period. We think this is the result of multiple efforts by the Company, including raising dispatching unit prices and reducing costs utilizing locally-oriented management, as well as increasing the ratio of dispatch engineers for whom unit costs are high.

# Medium- to long-term growth strategy

## The Company will take the lead in pursuing M&A and strategic alliances Each operating company making steady progress on new product development

#### 1. Overall growth strategy and status of progress

The Company's longer-term growth strategy is unchanged. It plans to focus on the three themes of M&A and formation of strategic alliances with other companies, development and growth in sales of new products, and growth in income from services in existing businesses.

The operating companies under the Company's umbrella have been executing these growth strategies. In FY3/19 1H, PHOENIX Electric announced a new LED product, while there was one M&A deal in the Human Resource Service Business. In the Manufacturing Equipment Business, following HRPs, progress has been made on the development of high-resolution PI printers and the establishment of curved surface printing technology, and preparations targeting commercialization are currently being undertaken.

	Operating company/business segment					
			Nakan Techno	PHOENIX Electric	Nippon Gijutsu Center	
			Manufacturing Equipment Business	Lamp Business Manufacturing Equipment Business	Human Resource Service Business/Manufacturing Equipment Business	
Basic growth plan	M&A and strategic - alliances	Expansion into new business fields including semiconductor	Collaboration with Chinese manufacturer, investment fund			
		Expansion of existing businesses	Acquisition of Leadtech		New growth through M&A owing to Revised Temporary Staffing Services Law	
	Development and growth of new products		Development of high- resolution PI printers Establishment of curved surface printing technology	Super-wide-band LED, ultraviolet LED, infrared LED	Completion of development of power device tester	
	Growth in income from services in existing businesses		Growth in sales of used equipment, maintenance, consumables			

#### Overview of measures targeting growth

Note: Parts highlighted in yellow are areas in which progress was made in FY3/19 1H. Source: Prepared by FISCO from the Company's results briefing materials



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Medium- to long-term growth strategy

At its results briefing for FY3/19 1H, the Company announced that it had switched to a structure in which the holding company itself will lead efforts to pursue M&A and business alliances. Also, it was announced that the first actions taken were to create a department dedicated to pursuing M&A and business alliances as well as open a Tokyo office as a hub for gathering information.

We believe that the Company made this decision based on a strong sense of impending risks as it looks towards the future. Currently, the Company is growing its sales of MLS and replacement light source lamps, alignment film production equipment, HRPs and other products, and the Company's results have been very strong. However, demand for these product groups all come from customers related to LCD panel capital investment in China. Regarding China's LCD panel capital investment, the Company itself has been saying that it thinks such capital investment will peak in 2019-2020 and contract thereafter. It is not a situation where the Company can simply be content with the upswing in profits in FY3/19 1H. The Company's belief that it must use today's earnings to quickly develop future growth businesses is the key to understanding its actions.

We feel that the Company's behavior is very appropriate. One thing it must be careful of is not to move too fast on M&A and/or business alliances and consequently not evaluate companies correctly, leading to poor judgments about future synergistic effects and other outcomes. In addition to the fact that market participants' assessments that M&A deals themselves are getting tougher, and although those M&A deals and business tie-ups sometimes fall through, the Company is not large enough or strong enough to easily deal with a failed M&A deal or business alliance. Going forward, we will follow the Company's progress while keeping a close watch on this point.

# Establishment of a headquarters to handle M&A and business alliances, targeting entry into the semiconductor domain

#### 2. The Company's initiatives

As mentioned above, the Company itself will take the lead with M&A and strategic alliance efforts, and the target of these efforts is the semiconductor domain. As mentioned earlier, the target market for the Company's current mainstay products and businesses is capital investment in LCD panels, but this market is close to peaking out.

In contrast, the semiconductor field is an important industry that will support the realization of "Made in China 2025" in China, which is the Company's main market, and raising the ratio of semiconductors manufactured domestically is a pressing issue for China. It is easy to imagine that U.S.-China trade friction will prompt even faster movement in this area.

The Company's plants business has been engaged in the relocation of used LCD panel manufacturing equipment, but the precision level of semiconductor-related devices are of a much higher magnitude, and the Company currently does not have the technology to handle semiconductor equipment. The reason for this change in management structure is to utilize M&A and business alliances to compensate for this.

Many companies view China's expansion of its semiconductor industry as a business opportunity, and we feel that the tight supply-demand for M&A deals will continue. Because success with M&A involves not only information and financial wherewithal but also luck, this change in management structure will not immediately yield results. Realizing this, and with the aim of leveraging its own advantages, the Company teamed up with a Chinese partner and investment fund in FY3/18, and has since been steadily preparing for possible M&A deals and business alliances.

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Medium- to long-term growth strategy

# Looking for a quick start in high-resolution PI printers and curved surface printing technology

#### 3. Nakan Techno's growth strategy and progress

Because the holding company itself will now handle M&A and business alliances, Nakan Techno's efforts in the pursuit of growth will be separated into two categories: new product development and expansion of sales, and the expansion of existing businesses.

#### (1) Growth through new product development and expansion of sales

In terms of the strategy of growing with new products, the Company received a large amount of HRP orders in FY3/18 and delivered all of the units during the period. HRPs are beginning to be used for industrial applications other than for FPD production, and it is expected that the number of units sold will continue to increase going forward. However, one should understand that the large volume of orders received in FY3/18 was an exception.

Nakan Techno is currently working on the development and mass production of high-resolution PI printing machines and the establishment of curved surface printing technology. Technically, high-resolution PI printers are a hybrid of flexographic printing and inkjet printing, and its distinctive feature is that it can handle high resolution as well as large sizes. A prototype model has already been completed, and the Company is currently at the stage of focusing on sales for mass production use (order acquisition). The application is FPD manufacturing, and looking at the future product roadmap, the Company appears to be expecting it to be used in the manufacturing of 8K televisions.

Regarding curved surface printing technology, the Company is working on establishing a technology to print and coat an item with uniform layer thickness utilizing high-resolution printing technology. There are expectations in that niche market for a display device that uses a curved surface. The area around the driver's seat in vehicles is expected to be an area for significant growth. Automobiles are adopting mirrorless designs and automated driving technology. These systems install cameras and hence are likely to increase use of display devices as monitors. It is expected that such displays would enlist curved designs to ensure visibility. While various production technologies have been studied for curved displays, printing is advantageous from a cost standpoint and the Company is aiming to use that as a way to open the door to the market. Although the Company had finished developing a printer that realizes curved surface printing technology by the end of FY3/18, the final finishing process before moving to mass production still remains, and the Company appears to be working on this in FY3/19.

According to the Company, it is currently receiving inquiries about both high-resolution PI printers and curved surface printers for testing and evaluation, so there is a possibility that they will contribute to sales in FY3/20. However, the Company is cautiously looking for mass-produced printers to be sold and to start contributing to earnings from FY3/21.

#### (2) Growth through expansion of existing businesses

Regarding the growth strategy theme of increasing income from services, the Company is working toward the goal of creating profitable businesses from mediating and relocating used plant equipment (semiconductor and FPD production equipment) to China, the repair and maintenance of already installed equipment, and sales of consumables. Used plant sales weakened in FY3/18 amid focus on a major HRP deal as explained above, but are headed for a steep increase in FY3/19 on upcoming delivery for a deal booked in the past. The growth strategy is proceeding favorably as expected, as far as FY3/19 1H is concerned.



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#### Medium- to long-term growth strategy

The Company plans to continue to focus on used plants in the future, but one point bears watching. The Company currently mainly handles FPD production equipment centered on LCD panels. As mentioned above, there is a view that capital investment in LCD panel manufacturing lines in China will peak in 2019-2020 and then contract thereafter. In addition, the number of used manufacturing equipment units on the market is dwindling. There are almost none in Japan now, and the Company is procuring the equipment from Taiwan and other countries, but supply from these sources is not limitless. This is the backdrop behind the Company's efforts to quickly enter the semiconductor domain and its focus on pursuing M&A and business alliance opportunities.

The other strategy for growth in existing areas is repair and maintenance services and sales of consumables. These businesses rely on a recurring income model which the business grows along with the build-up in delivered manufacturing equipment. The Company's strategy is to proceed with "proactive sales" going beyond just repair and maintenance and proposing improvement work that boosts functionality and lengthens equipment life. Due to the fact that the cumulative number of manufacturing equipment units sold has been built up, this field has entered a true period of revenue growth, and the Company is expecting sales to increase by around 20% YoY in FY3/19.

## As the Company works to develop unique new products such as ultraviolet LED and infrared LED, in FY3/19 it announced the development of the world's first super-wide-band LED

#### 4. State of progress for PHOENIX Electric

PHOENIX Electric's growth strategy is devoted to the development and increased sales of new products. As specific examples of this, the Company has already introduced the development of ultraviolet LEDs for replacement of MLS light source lamps and the development of new businesses and new products using infrared LED lamps. However, in FY3/19 1H, the Company announced that it had developed the world's first LED that emits light across an extremely broad range of wavelengths.

This super-wide-band LED was jointly developed by PHOENIX Electric, the National Institute of Advanced Industrial Science and Technology, and Sialon Corporation, and is capable of emitting light across an extremely broad range of wavelengths extending from near-ultraviolet to near-infrared bands. Currently, the same effect can be realized by combining multiple LEDs, but this newly developed LED can achieve this on its own.

It will likely be a while before this super-wide-band LED contributes to the Company's earnings. Because PHOENIX Electric is not an LED manufacturer, rather than selling this LED in parts, it is aiming to sell it as a system (a combination of the LED and software), as well as to sell them as equipment and modules. As a typical application, this LED is expected to be used in diagnostic and analytics equipment in healthcare and other fields. We will closely watch future developments related to this new LED.

Meanwhile, the Company continues to develop ultraviolet LED lamps. The target use is as MLS light source lamps. The Company has completed a prototype, and is currently working to increase the volume of light. Investment in LCD panel production lines is expected to peak out in the near future, but because PHOENIX Electric exclusively delivers light source lamps to Japan's leading manufacturer of exposure equipment, it has been significantly building up the number of delivered units for some time. This is to pursue market demand for updates to already installed equipment.



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Medium- to long-term growth strategy

### The growth strategy centers on scale expansion through M&A Announced in FY3/19 1H that Technolink was made a subsidiary

#### 5. State of progress for Nippon Gijutsu Center

Nippon Gijutsu Center operates the Human Resource Service Business, which includes dispatch of engineers, manufacturing workers, and other engineers, and the testing equipment business, which includes the development, manufacturing, and sale of testing equipment (this business is classified under the Manufacturing Equipment Business segment). In the Human Resource Service Business, the industry as a whole is facing difficulty in securing engineers and manufacturing workers, and the Company is no exception. The Company believes that M&A allowing it to secure human resources, customers, and commercial spheres is an effective measure to overcome this problem, and it is the focal point of the growth strategy to expand the business scale.

In FY3/19 1H, the Company negotiated an M&A deal behind the scenes, and later announced that it would make Technolink a subsidiary. Technolink is headquartered in Kyoto City, and develops, designs and produces automation/labor-saving equipment, semiconductor manufacturing equipment, and manufacturing equipment for medical devices. Technolink's most recent results (FY12/17) included net sales of ¥224mn and operating profit of ¥16mn. Although it is not particularly large in size, it will help to boost the Company's capabilities in the areas of dispatching engineers and design subcontracting, both of which have relatively high profit margins within the Company's Human Resource Service Business, and the move is expected to contribute to operating results. The impact on FY3/19 results will be limited, but the acquisition is expected to fully contribute to earnings from FY3/20.

# **Business outlook**

## Upward revisions to FY3/19 full-year outlook

#### 1. FY3/19 earnings forecast

For FY3/19, Helios Techno upwardly revised its forecast in consideration of the favorable progress made in FY3/19 1H. The Company now projects ¥24,300mn in net sales (+3.5% YoY), ¥2,300mn in operating profit (-24.3%), ¥2,300mn in recurring profit (-22.9%), and ¥1,630mn in profit attributable to owners of parent (-24.7%).

Despite the upward revision, the reason for the expected decline in profits is the recoil following the spike in profit in FY3/18 based on the large volume of orders received for manufacturing equipment. Looking at the historical trend in profits excluding such special factors, the Company's earnings are steadily rising both in terms of profit amount and profit margin.

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#### Business outlook

									(¥mn)		
		FY3/18			FY3/19						
			<b>_</b>		21	4		Full year			
	1H results	2H results	Full-year results		211112	1H results	Forecast	YoY	Initial forecast	Revised forecast	YoY
Net sales	11,362	12,121	23,483	12,478	11,821	-2.5%	24,600	24,300	3.5%		
Operating profit	1,705	1,333	3,039	1,571	728	-45.3%	1,900	2,300	-24.3%		
(Operating margin)	15.0%	11.0%	12.9%	12.6%	6.2%	-	7.7%	9.5%	-		
Recurring profit	1,654	1,329	2,983	1,575	724	-45.5%	1,900	2,300	-22.9%		
(Recurring margin)	14.5%	11.0%	12.7%	12.6%	6.1%	-	7.7%	9.5%	-		
Profit attributable to owners of parent	1,180	984	2,164	1,110	519	-47.2%	1,400	1,630	-24.7%		
(Net income ratio)	10.4%	8.1%	9.2%	8.9%	4.4%	-	5.6%	6.7%	-		

#### Summary for the FY3/19 outlook

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

The Company lowered its net sales forecast by ¥300mn versus initial guidance. This was due to the fact that for certain projects in the Manufacturing Equipment Business, the Company had been planning to book sales at the very end of FY3/19, but ended up pushing them back to FY3/20. Meanwhile, the Company increased its operating profit forecast by ¥400mn compared to the initial guidance, reflecting the ¥671mn upswing in operating profit in FY3/19 1H results. However, because the Company has factored in the impact of pushing back sales bookings on some deals in FY3/19 2H to FY3/20, as well as an increase in R&D costs, the amount of upward revisions to profits on a full fiscal year basis were smaller than the upswing in FY3/19 1H.

The outlook for each business segment is as follows.

In the Lamp Business, the Company expects net sales to decline 0.9% YoY to ¥3,600mn, which is lower than the initial guidance of ¥4,100mn. We think that the reason for this downward revision is that the Company has factored in the impacts of the contraction of the projector lamp market and stiffer competition for general-purpose lighting lamps. We feel that MLS replacement lamp demand will continue to grow in a stable manner.

The Company expects net sales in the Manufacturing Equipment Business to increase 1.9% YoY to ¥15,700mn. This is only a minor revision compared to the initial guidance of ¥15,750mn, and we do not think that there have been any major changes to the situation with the business. As discussed above, the Company pushed back the timing of the booking of sales for some projects to FY3/20, but due to the steady recovery of net sales in plants (used equipment relocation business) and repairs/maintenance, the forecast for full fiscal year sales has not changed significantly since the beginning of the fiscal year. Even when compared to the previous fiscal year, the Company expects the recoil decline following the large volume of HRP sales in the previous fiscal year to be absorbed by steady increases in sales in plant, repair/maintenance, and sales of flexographic printers for alignment layer manufacturing, MLS, and other products, and the Company expects net sales to still increase YoY.

Net sales in the Human Resource Service Business are expected to increase 10.5% YoY to ¥5,000mn. The Company raised the full-year forecast after net sales in FY3/19 1H increased 21.8% YoY due to the increase in the number of staff dispatched. As mentioned above, the Company announced that it made Technolink a subsidiary, but because the effective date was December 1, 2018, and due to the fact that Technolink's fiscal year ended December 31, 2018, the contribution to FY3/19 earnings will be limited.

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#### Business outlook

#### Sales outlook by business segment

		FY3/18			FY3/19				
			E. I. I. I. I. I.		2H	1	Full year		
	1H results	2H results	Full-year results	1H results	Forecast	YoY	Initial forecast	Revised forecast	
Lamp Business	1,592	2,042	3,634	1,610	1,989	-2.5%	4,100	3,600	
Manufacturing Equipment Business	7,738	7,664	15,403	8,404	7,295	-4.8%	15,750	15,700	
Human Resource Service Business	2,060	2,465	4,526	2,511	2,488	0.9%	4,750	5,000	
Subtotal	11,392	12,171	23,563	12,525	11,774	-3.3%	24,600	24,300	
Adjustment	-30	-50	-80	-47	47	-	-	-	
Total	11,362	12,121	23,483	12,478	11,821	-2.5%	24,600	24,300	

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

## Possibility for higher revenue and higher profits along the trend line Watching progress on M&A and new product development

#### 2. Outlook from FY3/20

With respect to FY3/20 results, there have been no major changes to our line of thinking since we issued our previous report.

With respect to FY3/20 results, we are expecting both sales and profits to increase along the medium- to long-term trend line. In the mainstay Manufacturing Equipment Business, FPD production equipment (including LCD) will still be the main business, while business in the semiconductor domain will be extremely limited. Capital investment in LCD panels in China is expected to remain at a high level, so we look for this to boost the Company's earnings. Impacts from the U.S.-China trade friction have not appeared thus far, and the Company does not expect any impacts through FY3/20. We think that performance in the Lamp Business will be roughly flat YoY, but we are looking for an increase in revenue in the Human Resource Service Business due to the increase in the number of staff dispatched (similar to FY3/19) and the full contribution from Technolink.

One aspect to keep an eye on in FY3/20 is the entry into the semiconductor field, which the Company is placing particular emphasis on. Because the Company will only be able to enter this field through M&A and/or business alliances, it is difficult to be optimistic about progress being made. Even worse than making no progress would be lean too far forward and make a bad decision, so we hope that the Company will take a cautious approach to talks.

We also think there is a possibility for the Company to sell new manufacturing equipment in the form of tester equipment. However, these new products would only contribute to earnings after starting to be sold as mass-produced equipment, and that would likely be from FY3/21 onward.

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#### Business outlook

#### Summary income statement and main indicators

						(¥mn
	FY3/15	FY3/16	FY3/17	FY3/18 -	FY	3/19
	FY3/15	FY3/10	FY3/17		1H	Full year (E)
Net sales	14,817	25,769	17,117	23,483	12,478	24,300
YoY	14.9%	73.9%	-33.6%	37.2%	9.8%	3.5%
Gross profit	3,892	4,313	4,445	7,033	3,403	-
Gross margin	26.3%	16.7%	26.0%	29.9%	27.3%	-
SG&A expenses	3,041	3,131	3,058	3,993	1,831	-
SG&A ratio	20.5%	12.2%	17.9%	17.0%	14.7%	-
Operating profit	851	1,182	1,386	3,039	1,571	2,300
YoY	63.7%	38.8%	17.3%	119.2%	-7.9%	-24.3%
Operating margin	5.7%	4.6%	8.1%	12.9%	12.6%	9.5%
Recurring profit	780	1,168	1,375	2,983	1,575	2,300
YoY	25.5%	49.8%	17.7%	116.9%	-4.7%	-22.9%
Profit attributable to owners of parent	757	807	1,144	2,164	1,110	1,630
YoY	-14.8%	6.6%	41.7%	89.1%	-5.9%	-24.7%
EPS (¥)	43.97	45.25	63.67	119.66	61.35	90.06
Dividend (¥)	12.00	15.00	20.00	30.00	0.00	30.00
Net assets per share (¥)	450.23	480.79	530.46	635.02	-	-

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

#### Summary balance sheet

					(¥mn)
	As of March 31, 2015	As of March 31, 2016	As of March 31, 2017	As of March 31, 2018	As of September 30, 2018
Current assets	18,802	11,898	13,830	15,273	14,264
Cash and deposits with banks	1,836	3,158	4,181	4,165	3,212
Notes and accounts receivable	4,213	4,884	5,295	5,970	7,741
Inventory assets	12,144	2,553	3,422	4,170	3,032
Fixed assets	2,726	2,765	2,763	3,189	3,063
Property, plant and equipment	2,093	2,181	2,065	2,222	2,290
Intangible assets	149	109	113	89	77
Investments and other assets	483	474	584	877	695
Total assets	21,528	14,663	16,594	18,463	17,327
Current liabilities	12,629	5,400	6,573	6,489	4,980
Notes and accounts payable	1,271	1,417	2,053	2,433	2,468
Short-term borrowings	2,969	519	481	427	585
Long-term liabilities	857	617	449	481	339
Long-term borrowings	654	434	252	336	256
Shareholders' equity	7,911	8,532	9,421	11,234	11,801
Common stock	2,133	2,133	2,133	2,133	2,133
Capital surplus	2,563	2,563	2,563	2,563	2,563
Retained earnings	4,459	5,047	5,919	7,716	8,283
Treasury shares	-1,245	-1,211	-1,194	-1,179	-1,179
Accumulated other comprehensive income	117	106	146	258	206
Subscription rights to shares	12	6	2	-	-
Total net assets	8,041	8,645	9,571	11,492	12,007
Total liabilities and net assets	21,528	14,663	16,594	18,463	17,327

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



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#### Business outlook

#### Cash flow statement

					(¥mn)
	FY3/15	FY3/16	FY3/17	FY3/18	FY3/19 1H
Cash flows from operating activities	-3,508	4,503	1,727	388	-326
Cash flows from investing activities	91	-317	-224	-370	-160
Cash flows from financing activities	2,611	-2,863	-480	-323	-466
Net increase (decrease) in cash and cash equivalents	-804	1,322	1,022	-305	-953
Cash and cash equivalents at beginning of period	2,584	1,780	3,102	4,125	4,109
Increase in cash and cash equivalents from newly consolidated subsidiary	-	-	-	290	-
Cash and cash equivalents at end of period	1,780	3,102	4,125	4,109	3,156

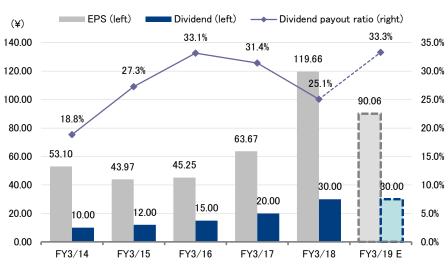
Source: Prepared by FISCO from the Company's financial results

# Shareholder returns

## Kept the FY3/19 dividend at ¥30 despite the forecast for a decline in profit Demonstrates confidence in quick profit recovery

The Company's basic method of returning profits to shareholders is through dividends. The Company has not announced an official level for dividends. However, looking at past dividends, it is clear that the Company has basically paid a stable dividend, increasing it in line with growth in results.

The FY3/19 initial outlook targets a ¥30 dividend (unchanged YoY) for a 33.3% payout ratio using the ¥90.06 EPS estimate. The Company retained a ¥30 dividend, despite the prospect of lower profits on increased sales in FY3/19 as explained above. The anticipated FY3/19 profit decline stems from one-time backlash to a large HRP deal in the previous fiscal year. We think the dividend stance demonstrates confidence in quick recovery to a growth trajectory.



Earnings per share, dividend and dividend payout ratio

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

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