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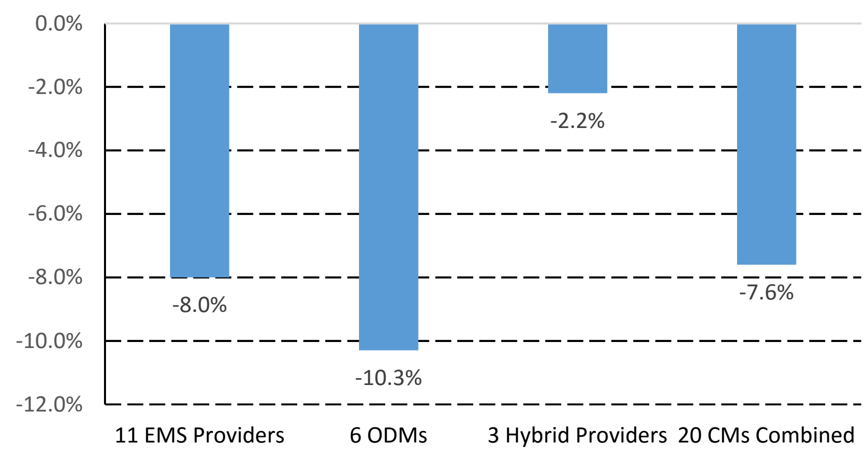
First-Half Revenue Declines 7.6%

Based on first-half results of 20 of the largest contract manufacturers, neither the EMS model nor the ODM approach exhibited growth this year so far. Combined first-half sales of 11 large EMS providers declined 8%, whereas the aggregate sales of six large ODMs dropped 10.3%. Apparently, both groups were buffeted almost equally by the macroeconomic headwinds swirling about the global economy. But that is not the end of the story of the first six months.

There is a third class of contract manufacturer—the hybrid provider—that does substantial amounts of both EMS and ODM business. In conformity with the decline of the ODM group, combined sales of three large hybrid CMs dropped in the first half. The hybrid group's revenue declined only a minor 2.2% year over year, more than 50 percentage points better than the performance of the other two groups (Chart 1). If this comparison can be generalized, it would seem that the hybrid model did a better job of withstanding the vicissitudes of the first half.

Hybrid companies benefited from the rebound in demand for smart phones and tablets, plus a resurgence from traditional industries such as medical, industrial, and transportation, where ODMs have only a minor manufacturing presence.

Chart 1: First-Half Growth Year on Year



The companies with the strongest improvement in terms of year-to-year gain were **Kinpo Electronics** (148.5%), **Amtran Technology** (38.3%), **Inventec** (9.1%), **Sanmina** (7%), and **Celestica** (4.5%). **Foxconn**'s gross revenue declined from $63 billion to $58 billion, a drop of 8.7%. The most negative result occurred among the ODM group, which experienced a 10.3% decline rate for the first half of 2016.

The biggest player in the hybrid group was **Pegatron**, of which EMS accounted for approximately 91% of its total revenue. Pegatron has emerged as one of the world's largest contract manufacturers, having risen to second biggest in terms of total first-half revenue (see Table 1, p. 2). While Pegatron has been known as an ODM, much of its recent growth has been fueled by its **Apple** assembly business, which has expanded the EMS piece of Pegatron's revenue pie. Reportedly, Pegatron has built iPad Mini tablets and some versions of the iPhone for Apple.

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Table 1: Q2 and Six-Month 2016 Results for 20 of the Largest Contract Manufacturers (M US$ or %)

Company	Primary business	Head-quarters	Reports in US$	2Q2016 Sales	1Q2016 Sales	Qtr.-qtr. chg.	2Q2015 Sales	Yr.-yr. chg.	2Q2016 Net Inc.	1Q2016 Net Inc.	2Q2015 Net Inc.	Q1–2 '16 sales	Q1–2 '15 sales	Yr.-yr. chg.	Q1–2 '16 net profit	Q1–2 '15 net profit
Hon Hai	EMS	Taiwan	No	28,585.4	29,766.6	–4.0	31,525.7	–9.3	548.2	856.8	832.6	58,352.0	63,936.1	–8.7	1,405.1	1,803.7
Quanta	ODM	Taiwan	No	6,437.7	6,132.3	5.0	8,135.2	–20.9	108.5	112.4	109.3	12,570.1	14,693.0	–14.4	220.9	226.7
Pegatron	ODM/EMS	Taiwan	No	6,964.0	7,966.1	–12.6	7,063.1	–1.4	123.6	127.6	150.9	14,930.1	15,828.3	–5.7	251.2	353.1
Compal	ODM	Taiwan	No	5,360.8	5,488.7	–2.3	6,450.7	–16.9	53.8	49.8	48.8	10,849.6	12,782.2	–15.1	103.6	113.2
Flex	EMS	Singapore	Yes	4,332.3	5,772.7	–25.0	5,566.2	–22.2	77.9	61.3	110.9	10,105.0	11,517.8	–12.3	139.3	246.0
Wistron	ODM/EMS	Taiwan	No	4,545.3	4,185.2	8.6	4,734.3	–4.0	19.1	11.9	2.5	8,730.5	9,550.7	–8.6	31.0	25.6
Jabil	EMS	Florida	Yes	4,310.8	4,403.6	–2.1	4,358.6	–1.1	5.2	78.9	70.5	8,714.3	8,668.0	0.5	84.1	123.4
Inventec	ODM	Taiwan	No	3,358.2	2,963.1	13.3	2,939.4	14.2	43.8	38.3	37.9	6,321.2	5,793.4	9.1	82.1	84.4
Sanmina	EMS	California	Yes	1,669.5	1,611.2	3.6	1,539.3	8.5	29.5	30.4	24.5	3,280.6	3,066.8	7.0	59.9	39.2
Celestica	EMS	Canada	Yes	1,485.5	1,353.3	9.8	1,417.3	4.8	36.2	25.6	24.2	2,838.8	2,715.8	4.5	61.8	43.9
Cal-Comp Electronics	EMS	Thailand	No	688.3	966.0	–28.7	1,225.3	–43.8	7.5	12.4	9.8	1,654.3	2,617.8	–36.8	19.9	28.0
Qisda	ODM	Taiwan	No	977.1	987.0	–1.0	1,076.3	–9.2	24.7	16.0	23.3	1,964.1	2,112.7	–7.0	40.7	43.2
Universal Scientific Industrial	EMS	China	No	756.8	904.4	–16.3	890.1	–15.0	13.0	33.7	25.4	1,661.2	1,660.4	0.0	46.8	56.5
Plexus	EMS	Wisconsin	Yes	667.6	618.7	7.9	669.6	–0.3	26.1	16.8	23.8	1,286.3	1,320.9	–2.6	42.9	47.4
Benchmark Electronics	EMS	Texas	Yes	579.3	549.2	5.5	664.0	–12.8	12.7	11.1	21.2	1,128.6	1,285.0	–12.2	23.7	35.4
Shenzhen Kaifa	EMS	China	No	552.0	637.5	–13.4	656.8	–16.0	23.4	6.2	8.2	1,189.4	1,372.5	–13.3	29.6	14.4
Venture Corp	EMS	Singapore	No	507.7	468.4	8.4	490.9	3.4	32.2	26.6	26.8	976.0	934.6	4.4	58.9	50.5
Kinpo Electronics	ODM/EMS	Taiwan	No	1,020.9	879.0	16.1	371.1	175.1	13.1	13.9	18.8	1,899.9	764.4	148.5	27.0	32.6
Ability Enterprise	ODM	Taiwan	No	92.5	86.2	7.3	160.0	–42.2	1.6	(0.9)	6.2	178.7	308.6	–42.1	0.7	10.0
Amtran Technology	ODM	Taiwan	No	208.4	121.0	72.2	151.3	37.8	10.9	31.9	3.9	329.5	238.3	38.3	42.8	6.3
Total/avg.				**73,100.1**	**75,860.2**	**–3.6**	**80,085.2**	**–8.7**	**1,211.2**	**1,560.7**	**1,579.5**	**148,960.2**	**161,167.3**	**–7.6**	**2,772.0**	**3,383.5**
Total/avg. without Hon Hai				**44,514.6**	**46,093.5**	**–3.4**	**48,559.6**	**–8.3**	**663.0**	**703.9**	**746.9**	**90,608.2**	**97,231.2**	**–6.8**	**1,366.9**	**1,579.8**

Results in non-US currencies were converted to US dollars by applying a three-month average exchange rate for the corresponding quarter. Average exchange rates were based on monthly 2016 and 2015 data from the US Federal Reserve. Company net profits shown here are attributable to shareholders. Net profit totals are approximate because not all companies follow the same accounting standard.

Wistron is another large player operating as both an ODM and an EMS provider, the latter function accounting for approximately 21% of revenue. Although the company has the reputation of being a major notebook ODM, Wistron has a history of doing business on both sides of the outsourcing street. Wistron has reportedly been selected to become part of the supply chain for Apple, Inc.'s next-generation, larger iPhone and was expected to start shipping the product in August this year. Previously, Wistron helped assemble Apple's iPhone 5C and iPhone 6, according to people who are familiar with the matter.

The third and final company placed in the hybrid group is Kinpo Electronics, of which the **New Kinpo Group** accounts for 70% of EMS revenue. The New Kinpo Group is a subsidiary of the holding company **Kinpo Group**, which owns and manages 23 subsidiaries (for example, the **Compal Group** and the **VIBO Services** companies), seven of which are publicly listed corporations. By first-half revenue, the hybrid providers comprise the smallest of the three groups into which the 20 CMs are divided. Sales of the hybrid CMs totaled $25.6 billion, or 17% of the combined sales of the group of 20. By far the largest share of total sales—60%—belonged to the EMS group, while the ODMs generated 23% (Chart 2, p. 3).

First-half sales of the 20 CMs amounted to $149.0 billion, a decrease of 7.6% year over year. *MMI* believes that this figure can be used as a proxy for the board- and system-level outsourcing space, since these 20 companies account for the vast majority of revenue from the space. Hon Hai Precision Industry, the EMS giant, did influence this result significantly. Without Hon Hai, the decrease would have been 6.8%.

Of the 20 CMs, 12 experienced first-half sales declines in US dollars ranging from slight to rather severe. In contrast, of the eight CMs that raised their first-half sales versus a year ago, two companies (Kinpo Electronics and Amtran Technology) achieved double-digit or better growth. Kinpo Electronics separated itself from the other CMs with a 148.5% gain.

Seven CM companies endured double-digit decreases, with **Quanta, Compal, Flex, Cal-Comp, Benchmark, Shenzhen Kaifa**, and **Ability Enterprise** suffering declines of over 10% (in US dollars) from a year earlier.

For the first six months, the 20 CMs together earned net income of approximately $2.77 billion. (Net income was approximate because not all companies follow the same accounting rules.) Net profit decreased about 18% year on year, in line with the afore-mentioned sales decrease of 7.6%. However, unlike the EMS and hybrid contingents, the ODM group improved its net income from a year earlier (Table 2 below). On the other hand, first-half net margin for the hybrid group came in at about 1.2%, compared with about 2.2% for the EMS group and 1.5% for the ODMs. Hon Hai contributed some 51% of total net income for the first half, while accounting for 39% of sales.

Second-quarter revenue for the entire group totaled $73.1 billion, down 3.6% from the prior quarter and down 8.7% from the year-ago period. Sequential decreases on the part of nine CMs outweighed increases produced by the others. Five companies, Cal-Comp Electronics, Flex, **Universal Scientific Industrial,** Shenzhen Kaifa, and Pegatron, experienced double-digit declines. Excluding Hon Hai, sequential decline in 2Q16 was around 3.4%.

In the year-over-year comparison, Q2 decreases from 14 companies more than offset increases by six CMs. Eight CMs faced two-digit drops in their revenue (expressed in US dollars), with Cal-Comp Electronics and Ability Enterprise showing the worst declines (Table 1). Kinpo Electronics stood out with its 175.1% growth since 2Q2015.

With regard to the year-over-year comparison, the EMS group's revenue decreased 9.9%, while the hybrid group's revenue increased 3% and that of the ODM group decreased 13.1%. When compared with the prior quarter, the EMS group's sales decreased 6.2%, whereas the ODM group had a 4.2% increase and the hybrid group a 3.8% decline (Table 2).

2Q2016 net income for the group of 20 was approximately $1.21 billion, down from about $1.56 billion in the previous quarter and down from about $1.58 billion a year earlier. Net income fell about 23.3% year over year. Ten CMs boosted their net income from a year ago, but this combined effort was not enough to counter the declines at the other providers. Without Hon Hai, the drop in Q2 net income would have been about 11.2% year on year instead of about 23.3%.

First-Half Decline for Asian Group

A group of 11 large and mid-sized EMS providers based in Asia produced a first-half sales decline that exceeded the declines of two other industry groups tracked by *MMI*. First-half 2016 sales of the Asia-based group fell 12.7% year on year. With respect to first-half sales, Asia-centric manufacturing did not prove to be an overall advantage for the Asian group. Nor, for that matter, did Asia-based production become a drawback in light of a growing trend toward on-shoring (keeping new programs in higher-cost geographies) and reshoring (relocating work from lower-cost to higher-cost regions). Indeed, it appears that a weak demand environment had virtually the same effect on each of the three industry groups in the publicly traded sector. Note that all of the EMS providers in this comparison are publicly listed or are part of a publicly traded company.

First-half revenue for the 11 Asia-based providers totaled $7.35 billion, down from $8.42 billion in the year-ago period. For the first six months, declines at seven EMS providers

Chart 2: First-Half Sales by Provider Type

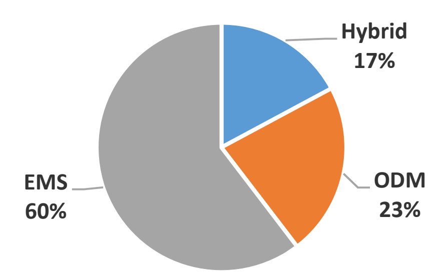

Table 2: Comparing Results Where Companies Are Grouped by Primary Business (M US$ or %)

No. of com-panies	Primary business	2Q2016 Sales	1Q2016 Sales	Qtr.-qtr. chg.	2Q2015 Sales	Yr.-yr. chg.	2Q2016 Net Inc.	1Q2016 Net Inc.	2Q2015 Net Inc.	Q1–2 '16 sales	Q1–2 '15 sales	Yr.-yr. chg.'	Q1–2 '16 net profit	Q1–2 '15 net profit
11	EMS	44,135.1	47,051.5	–6.2	49,003.8	–9.9	812.0	1,159.9	1,177.8	91,186.6	99,095.7	–8.0	1,972.0	2,488.4
6	ODM	16,434.8	15,778.4	4.2	18,912.9	–13.1	243.4	247.4	229.5	32,213.1	35,928.2	–10.3	490.8	483.8
3	ODM/EMS	12,530.1	13,030.3	–3.8	12,168.4	3.0	155.8	153.4	172.2	25,560.4	26,143.4	–2.2	309.2	411.3
20		73,100.1	75,860.2	–3.6	80,085.2	–8.7	1,211.2	1,560.7	1,579.5	148,960.2	161,167.3	–7.6	2,772.0	3,383.5

Net profit totals are approximate because not all companies follow the same accounting standard.

outweighed growth at three others. Six players—**Cal-Comp Electronics, PCI, Pan-International, Shenzhen Kaifa, WKK International**, and **Wong's International Holdings**—chalked up double-digit declines (in US dollars). On the other hand, two other providers—**Fabrinet** and **SVI**—grew their revenue by two-digit percentages (Table 3 below).

Two of the 11 Asian providers, WKK and Wong's International Holdings, report results only on a half-year basis. For the remaining nine players, sales for 2Q2016 amounted to $3.25 billion, down 10.6% sequentially and down 17.9% year over year. All but four of the nine providers increased their sales from the prior quarter, and three of these—Fabrinet, Pan-International, and SVI—achieved double-digit gains. But in the year-over-year comparison, six out of nine providers saw their sales drop, and two companies, SVI and Fabrinet, achieved double-digit gains (Table 3).

In Q2, the nine providers together earned net income of approximately $148 million for a net margin of about 4.5%. (Net income was approximate because not all companies follow the same accounting rules.) The highest net margins in the quarter were turned in by SVI at 19.6% and Pan-International also at 19.6%.

Collectively, net income increased about 37.2% sequentially, whereas there was a 10.6% decrease in sales from the prior quarter. Sequential net income increases at five companies more than offset declines at four others.

On a year-over-year basis, combined Q2 net income for the nine companies grew, though sales declined. Net income rose about 5.4% compared with a sales decline of 17.9%. Significant profit growth at Pan-International and Shenzhen Kaifa drove the increase.

For the first six months, net profit of the nine providers totaled approximately $256 million for a net margin of about 3.7%. First-half net profit increased about 4.8% year over year due to a positive swing in net income at Pan-International and Fabrinet.

Some Quarterly Results

Fabrinet (NYSE: FN). Reported 4Q 2016 revenue of $276.4 million for the fourth quarter of fiscal year 2016, an increase of 34% compared to total revenue of $206.5 million for the comparable period in fiscal year 2015. GAAP net income for the fourth quarter of fiscal year 2016 was $19.7 million, compared to GAAP net income of $13.0 million in the fourth quarter of fiscal year 2015. GAAP net income per diluted share for the fourth quarter of fiscal year 2016 was $0.53, compared to GAAP net income per diluted share of $0.36 in the fourth quarter of fiscal year 2015.

Strong revenue growth of 34% exceeded market expectations for the fourth quarter. These results capped a year of significant growth for Fabrinet, which was driven by a combination of momentum in the optical industry, growing contributions from new customers, and increasing demand for advanced packaging and precision assembly capabilities.

Fabrinet is issuing guidance for the first quarter of fiscal 2017 ending September 30, 2016 wherein it expects first-quarter revenue to be in the range of $306 million to $310 million. GAAP net income per diluted share is expected to be in the range of $0.62 to $0.64, based on approximately 37.6 million fully diluted shares outstanding.

Integrated Micro-Electronics, Inc. (IMI). For first-half 2016 IMI announced that it posted $20.7 million (Php972.2 million) in operating income

Table 3: Six-Month 2016 Results for 11 Asia-Based EMS Providers (M US$ or %)

	Head-quarters	Reports in US$	2Q 2016 Sales	1Q 2016 Sales	Qtr.-qtr. chg.	2Q 2015 Sales	Yr.-yr. chg.	2Q 2016 Net Inc.	1Q 2016 Net Inc.	2Q 2015 Net Inc.	Q1–2 '16 sales	Q1–2 '15 sales	Yr.-yr. chg.	Q1–2 '16 net profit	Q1–2 '15 net profit
Integrated Micro-Electronics	Philippines	Yes	210.6	199.1	5.8	215.1	–2.1	8.4	6.5	8.2	409.7	416.3	–1.6	15.0	14.8
PCI	Singapore	Yes	38.9	44.3	–12.2	47.4	–17.9	0.7	1.4	14.1	83.3	94.9	–12.3	2.1	16.2
SVI	Thailand	No	83.3	59.8	39.3	68.6	21.4	16.3	0.8	33.7	143.1	111.5	28.3	17.1	42.1
Venture	Singapore	No	507.7	468.4	8.4	490.9	3.4	32.2	26.6	26.8	976.0	934.6	4.4	58.9	50.5
Cal-Comp Electronics	Thailand	No	688.3	966.0	–28.7	1,225.3	–43.8	7.5	12.4	9.8	1,654.3	2,617.8	–36.8	19.9	28.0
Universal Scientific Industrial	China	No	756.8	904.4	–16.3	890.1	–15.0	13.0	33.7	25.4	1,661.2	1,660.4	0.0	46.8	56.5
Pan-International Industrial	Taiwan	No	136.3	103.4	31.8	158.9	–14.2	26.7	–0.6	1.3	239.8	267.1	–10.2	26.1	–2.3
Fabrinet	Thailand	Yes	276.4	250.9	10.2	206.5	33.9	19.7	20.8	13.0	527.3	395.9	33.2	40.5	23.9
Shenzhen Kaifa	China	No	552.0	637.5	–13.4	656.8	–16.0	23.4	6.2	8.2	1,189.4	1,372.5	–13.3	29.6	14.4
Subtotal/avg.			**3,250.3**	**3,633.8**	**–10.6**	**3,959.6**	**–17.9**	**148.1**	**107.9**	**140.5**	**6,884.1**	**7,871.0**	**–12.5**	**255.9**	**244.1**
WKK International (Holdings)	Hong Kong	No									262.8	309.5	–15.1	1.6	1.5
Wong's International Holdings	Hong Kong	No									209.5	245.3	–14.6	26.2	60.4
Six-month total/avg.											**7,356.4**	**8,425.8**	**–12.7**		

Results in non-US currencies were converted to US dollars by applying a three-month average exchange rate for the corresponding quarter, except for the two Hong Kong–based companies, whose results were converted by using six-month average exchange rates. Average exchange rates were based on monthly 2016 and 2015 data from the US Federal Reserve. Company net profits shown here are attributable to shareholders. Net profit totals are approximate because not all companies follow the same accounting standard.

for the period of January to June 2016—19 percent higher than that for the same period of 2015, despite a slight decrease in revenues to $409.7 million (Php19.3 billion) from $416.3 million.

The company's reported net income after tax for the first half of 2016 of $15 million (Php703.3 million) is slightly lower, by 1.4 percent year over year.

Capital investments in the first half reached $23.2 million, mainly in Mexico, Bulgaria, China, and the Philippines to support line expansion. Production volume ramp-up in IMI's automotive and industrial lines will commence in the fourth quarter of the year.

IMI's Europe and Mexico operations recorded $153.4 million in revenues in the first half, an 11.5 percent improvement year over year, as demand for the automotive body controls and lighting systems that IMI assembles in Bulgaria and the Czech Republic increased. In Mexico, revenues increased by 8.5 percent due to the strong performance of IMI's plastic injection and assembly lines.

The company's China operations posted $130.4 million in revenues, down 10.7 percent year on year mainly due to weak performance of the consumer electronics lines. The telecommunications infrastructure business, however, grew 6.8 percent year on year.

Revenues for IMI's EMS operations in the Philippines remained flat at $109.6 million. Lines for automotive cameras, security and access controls, asset tag sensors, and lighting controls continued on the growth path, partially offsetting the weak storage device business.

The company's balance sheet at the end of June 2016 remained healthy, with current ratio and debt-to-equity ratio at 1.44:1 and 0.55:1, respectively.

At **WKK International** (Holdings), its OEM Manufacturing Division brought in first-half sales of HK$2 billion, representing a reduction of approximately 15% compared to the same period last year. The Group's profit attributable to shareholders was HK$8.2 million, which included a profit of HK$7.8 million on the disposal of a non-core subsidiary that owned a yacht berthing right. This compared to a profit attributable to shareholders of HK$9.9 million for the same period last year.

The turnover of the Group's Industrial Products Trading Division for the first half of 2016 was HK$0.8 billion, reflecting a reduction of approximately 9% compared to the same period last year. The Division's operating profit was HK$10.8 million, representing a decrease of approximately 41% compared to the same period last year. This was mainly due to a decrease in demand for the industrial products distributed by the Group as a result of the sluggish market environment.

The Division's operations in Taiwan and its trading in printed circuit board–related products both continued to perform well and contributed a major part of the Division's profit. However, the Division incurred operating losses at its trading operations in the PRC and in its trading of electronic assembly–related products.

The turnover of the Group's OEM Manufacturing Division decreased by approximately 17% to HK$1.2 billion in the first half of 2016 compared to the same period last year due to the prevailing weak global economic situation. However, the Division's operating profit increased by HK$4.5 million to HK$16.6 million as compared to the same period last year, largely as a result of a shift in its sales mix toward higher margin products combined with benefits realized from cost-cutting measures.

With global demand still weak, the Directors expect that demand for the industrial products distributed by the Group will continue to slow down for the rest of this year. The Group's OEM Manufacturing Division is endeavoring to approach new customers and broaden its product range. However, given the orders on hand and the uncertainties in the global economic recovery, it is expected that the Division's level of business over the whole year will be lower than that of last year.

For the first six months, **Wong's International Holdings** reported sales of HK$1,625.2 million, as compared to HK$1,903.0 million for the corresponding period last year. Operating profit for the six months ended 30 June 2016 was HK$81.9 million, or 5.0% of revenue, as compared to HK$74.6 million, or 3.9% of revenue for the corresponding period last year. The operating profit for the interim period under review was maintained at a stable level owing to a slight improvement in gross profit percentage and cost-control measures.

Revenue for the EMS Division for the six months ended 30 June 2016 was HK$1,625.2 million, as compared to HK$1,901.9 million for the corresponding period last year. The segment profit attributable to the EMS Division was HK$98.0 million, a 5.2% increase as compared with HK$93.1 million for the corresponding period last year. The increase in the segment net profit was attributable to a slight improvement in gross profit percentage and cost-control measures.

Based on the current level of orders received and the forecasts provided by its customers, the company expects that sales for the EMS business in the second half of 2016 will be comparable to those in the first half. The company is cautious about the general business and economic conditions. The outcome of the referendum in the United Kingdom in June 2016 in favor of leaving the European Union implies an important downside risk for the global economy. The investment environment becomes more complex and difficult. This continues to present challenges to its EMS business in terms of its impact on consumer and business sentiment, investment decisions, commodity prices, operating expenses, and, ultimately, competitiveness.

Company News

Hanza Strengthens Its Cluster Concept in China

Swedish EMS provider **Hanza** is coordinating its production plants in China according to the group's cluster concept, and is also strengthening their local management.

Hanza Holding AB has two production plants outside Shanghai, China. In order to further enhance support to customers in need of local production in China, management of the plants is being coordinated in accordance with the company's cluster concept. Hanza has recruited a new manager, Marco Gentili, who has experience in running a business in China.

Hanza's cluster concept is to coordinate various manufacturing technologies in geographical areas that are important to the company's customers. The cluster concept has been strengthened in Europe and now in China, as reported by *Evertiq*.

Flex Subsidiary Just Bought a Machine Learning Start-Up

Flex (previously Flextronics), through its solar gear subsidiary **NEXTracker**, has acquired a young start-up called **BrightBox Technologies**, which builds predictive modeling and machine learning software.

Flex itself bought NEXTracker last year for $330 million. Now, NEXTracker is acquiring BrightBox Technologies, a three-year-old company based in Berkeley, California that has developed software to optimize heating and cooling systems in buildings.

Given the lack of financial details, and the repurposing of BrightBox's software, the deal sounds potentially like an "acquihire," a term referring to an acquisition motivated by recruiting talent rather than just product and intellectual property.

The deal is also further evidence of the growing Internet of Things movement for connected sensors and devices. Companies like Flex and **GE** are increasingly turning to data and algorithms to make their machines run better, as reported by *Fortune*.

New Owner for Compal's Polish Facility

Compal Electronics has concluded an agreement to transfer ownership of Compal Electronics Europe sp. z o. o., an LCD-TV manufacturing factory located in Wroclaw Poland, to Vestel Ticaret A.Ş. of Turkey (Vestel).
There are still some items to get in order before the agreement is concluded. The completion of the transfer is expected to happen in the fourth quarter of 2016, after necessary approvals from relevant authorities are obtained and conditions are met.

Looking forward, Compal will continue to expand its TV and display market with more new IoT linking and smart TV design to enhance its product offering, value-add to customers, and its overall profitability, as reported by *Evertiq*.

Executive changes… To strengthen operations in Sweden, **Enics** has appointed new General Managers for both business units in Sweden.
Mr. Peter Back will take over the role of General Manager for the Enics Malmö business unit as of 1 September. Mr. Anders Hynén will become General Manager of the Enics Västerås business unit. Mr. Hynén has worked in several leading positions within recognized OEMs, and will join Enics Västerås in the General Manager role on 1 October 2016. He holds Ph.D. and MSc degrees in Industrial Engineering. Mr. Leif Johansson, the previous General Manager of Enics Sweden in Malmö and Västerås, will be retiring after 11 years of holding different leadership roles in Enics and 38 years in the electronics industry.

Facilities expansion… **AWS Electronics Group** has announced a further significant expansion at its low-cost manufacturing center in Námestovo, Slovakia. The GBP1 million investment—AWS's third phase of development at the site—almost doubles the available production space, enabling a second automotive line to be located at the facility. Revenue growth at the Slovakia plant is now growing at around 25% year on year, and while the automotive sector is one of the main contributors to growth and a major driver for the expansion, other sectors such as scientific instrumentation, medical, lighting, and general industrial are also showing healthy growth.… **Leyard** is expanding with a new factory in Europe. The new plant, near Prešov, Slovakia, strengthens Leyard's European presence as the digital display manufacturer continues its international expansion. The 3,119-square-meter building, slated for completion in early 2017, will enable Leyard to meet the growing demand for its digital displays and video walls from European customers, especially those who prefer to purchase digital display solutions built in the European Union (EU). The new factory will supplement Leyard's existing facilities in Albi (France), Shenzhen and Beijing (China), and Beaverton, OR (USA).… **Lite-On Technology** reportedly has signed a deal with the Taiwan government to invest more than $300 million toward a new factory for automotive electronics production. The EMS company will build in the Nantze Export Processing Zone (EPZ), located in southern Taiwan. Construction is scheduled to begin in January 2017 and run through 2019. The firm will spend an estimated $315 million on the campus, which will employ 1,000 workers and is expected to add revenues of $700 million a year. Lite-On has another factory in the Nantze EPZ. It's unclear whether that site will remain open following the launch of the new campus.… **LeEco** launched a $7 million smart phone manufacturing unit in Taiwan. The 200,000-square-foot facility employs 200 and has the capacity to initially produce some 60,000 phones monthly, according to reports. By the end of 2016, LeEco plans to ramp production up to approximately 200,000 "superphones" monthly. The firm is investing $2 million to automate the site. The company collaborated with **Compal Electronics** to set up the facility.

Contract and Order Wins… **Orbit International** has received a finalized purchase order from a major contractor for approximately $1 million for its switch panels. The company initially received a letter contract in June 2016 for $275,000 to commence the procurement of material while negotiations were ongoing for the final purchase order. Deliveries of the completed units are expected to commence in the fourth quarter of 2016 and continue through the second quarter of 2017.… **PKC Group** has won new rolling stock business contracts from Bombardier Transportation (BT) following the recently signed global partnership agreement in the amount of approximately €50 million as fixed orders and an additional approximately €150 million as options. The business contracts comprise electrical cabinets for a BT customer in central Europe and includes long-term deliveries until the late 2020s, subject to realization of the options. The deliveries may include up to 17 different types of electrical cabinets per double-decker intercity train. The deliveries on this contract will commence immediately and will continue with the fixed portion of the contract until 2019. In addition, PKC Group has been awarded a first contract by BT to enter the UK railway market, which is expected to grow strongly in the coming years. The value of the first UK contract is estimated to be a maximum of €5 million. Deliveries are expected to begin during the remainder of 2016 and continue until 2019.

Vizio Acquisition Expected to Push LeEco-Foxconn Partnership

With **LeEco Global**'s (LeTV) acquisition of **Vizio**, some market watchers believe **Foxconn Electronics** (Hon Hai Precision Industry), which has a tight relationship with LeEco and has been making frequent contact with the China-based maker recently, will likely push the establishment of a new TV platform ecosystem with LeEco's partnership.

Foxconn is also a shareholder of Vizio, having an 8% stake in the US-based TV vendor, and it manufactures products for the company. LeEco has been cooperating with Foxconn to outsource its product manufacturing, and the two have established a joint venture for content and hardware integration.

In addition to its investment in **Sharp**, Foxconn has been looking to provide more services to its clients and its partnership with LeEco to acquire more content is expected to allow Foxconn to further expand into the LCD-TV market, as reported by *DigiTimes*.

Foxconn Dissolves Sharp's OLED Panel R&D Unit

Foxconn is dissolving Sharp's Japanese unit that handled research and development on organic light-emitting diode panels. The unit's engineers have moved to **Sakai Display Products**.

Recently purchased by Foxconn, **Sharp** planned to start mass production of OLED panels as early as 2018, but there may be delays. With a Foxconn investment, Sharp intended to spend nearly $2 billion on its OLED business, but this dollar amount may change.

Sharp is considering building a line in a Sakai Display Products plant for large LCD panels in Osaka Prefecture, a joint venture with Foxconn.

IMI Acquires Majority Stake in Via Optronics

Integrated Micro-Electronics, Inc. has signed an agreement to acquire a 76% stake in **Via Optronics** for $53.7 million. The acquisition is expected to be accretive to IMI's earnings per share starting in 2017. The transaction, which will be financed through debt, is expected to close in the third quarter of 2016. Via founder Jürgen Eichner will retain a 24% ownership and will remain as managing director, reporting to Arthur R. Tan, IMI's chief executive officer.

With headquarters in Schwarzenbruck, Germany-based Via develops products for optical bonding and display markets. It has approximately 290 employees across its research facilities and manufacturing sites in Mörsdorf, Germany, and Suzhou, China.

Benchmark Appoints Paul Tufano President and CEO

Benchmark Electronics has named Paul J. Tufano as President and Chief Executive Officer, replacing Gayla J. Delly, who has resigned from her positions as President and CEO and as a member of the board of directors to pursue other interests. Mr. Tufano has spent over 35 years in the technology and telecommunications industries, most recently serving as Chief Financial Officer of the Alcatel-Lucent Group, from 2008 through 2013.

Taiwan Supply Chain Makers to Benefit from Release of PS4 Neo

Taiwan-based makers in **Sony**'s PlayStation (PS) supply chain, particularly lens maker **Kinko Optical** and ODMs **Foxconn Electronics** and **Pegatron**, will benefit significantly from the debut of PS4 Neo and PS4 Slim scheduled for September 7 in New York.

Demand for camera lenses from Kinko, the sole lens supplier for PS4 consoles, is expected to triple in 2016, as it needs more lenses to enable VR (virtual reality) games on PS4 devices, according to a Chinese-language *Economic Daily News* (EDN) report.

Chicony Power Technology, a major supplier of power supply devices for the new PS4 consoles, is expected to see its revenues grow by a double-digit rate in the third quarter on increasing shipments to Sony, the paper added.

Foxconn and Pegatron, the two EMS firms responsible for assembly of the consoles, will also see their revenues moving upward in the second half of 2016, noted the paper.

Shipments of PS4 consoles are expected to reach 22.5 million units in 2016 and further increase to 27.7 million units in 2017, EDN said, citing sources from securities investment houses.

The paper also estimated that Sony will ship about 10 million PS4 virtual reality units within one year, through the fourth quarter of 2017.

Vendors to Shift More Orders Away from BYD

ASUSTeK Computer and **Huawei** are expected to shift more of their existing orders for notebooks and smart phones away from China-based **BYD**, which is having difficulty fulfilling its promises in product quality and shipment schedules to clients, according to sources from the upstream supply chain.

The sources added that these orders are expected to be shifted to Taiwan-based CMs, including **Foxconn Electronics** (Hon Hai Precision Industry), **Pegatron Technology**, and **Quanta Computer**. However, these companies declined to comment on their orders.

The sources pointed out that Foxconn has been aggressively looking to further tighten its partnership with Huawei, and the China-based vendor is likely to outsource more orders to Foxconn due to BYD's issues.

Although China-based makers have advantages in costs, issues over quality and delivery schedules are starting to prompt clients to resume their partnerships with Taiwan-based makers.

ASUSTeK is planning to shift its notebook orders back to Taiwan ODMs, but some of its smart phone orders are expected to stay with China-based makers because the company's smart phones are mainly targeting the entry-level market and cutting costs is still the priority, the sources added, as reported by *DigiTimes*.

Acer Invests in Two Start-Ups to Expand Cloud-Based Service Business

Acer has made investments in two start-ups as it strives to continue expanding its cloud service business.

Acer has invested in Wi-Fi pet camera maker **Pawbo**. The interactive wireless pet cameras rolled out by Pawbo allow users to monitor, interact with, and feed their pets remotely through Acer's cloud-based services.

Acer also committed equity investment in a parking application developer. The application helps drivers to find the nearest parking space available, as well as listing parking rates and business hours.

Acer was expected to showcase applications developed by Pawbo and the parking lot application start-ups during the IFA conference (Berlin, Germany), September 2016.

The new investments were implemented by Acer's newly established investment holding company. The holding company has also invested in IT solution and service provider **grandPad** and announced plans to set up a joint venture with game developer **Starbreeze**, as reported by *DigiTimes*.

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