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The Rise of the Mega-Vertical Supplier

In the outsourcing space for mobile phones, a new class of providers is emerging. **Nokia** calls them mega-vertical suppliers. These are companies that offer in addition to design and manufacturing an integrated supply chain of internally supplied components. Two companies, **Flextronics** and **Foxconn International Holdings**, have been following this paradigm for some time. Developments at other suppliers indicate that the mega-vertical concept is catching on in the mobile phone space. Indeed, Nokia tells *MMI* that the company definitely recognizes an industry trend toward mega-vertical suppliers that have the capability of providing a wider portfolio of components to Nokia. What's more, Nokia expects to see that kind of consolidation in the future.

It could be argued that the future is now because supplier consolidation in the outsourced mobile phone space has already begun. In three cases, an EMS provider or ODM has made or announced one or more deals to build a vertically integrated supply chain for mobile phones, while a fourth company has pledged to put together a vertically integrated solution through arrangements that will include M&A. Consider the following.

• **Lite-On Technology**, a Taiwan-based ODM and components supplier, intends to make a tender offer for **Perlos**, a producer of handset mechanics

with headquarters in Finland. According to a statement from Perlos, this deal, when closed, will form "a new powerhouse" in the handset supply chain. The product offerings of the two companies are described as complementary. For handset customers, Lite-On provides phone camera modules, LEDs, keypads, GPS, and various types of sensors. Perlos' capabilities are listed as handset mechanics, plastics, sheet metals, light guide applications, assemblies and antennas. But the combined offering will not include software or final assembly, according to a Perlos presentation.

• EMS provider **Jurong Technologies** (Singapore) has announced three investments that will enable it to act as a vertically integrated ODM for mobile phones (July, p. 5). In its most recent move, the company plans to add cell-phone design capabilities by acquiring a controlling interest in **i-Sirius Pte Ltd.**, which develops and sells GSM modules and designs handsets

based on these modules. On the mechanics side of the supply chain, Jurong acquired plastics supplier **Amould Plastic Industries** this year and entered into an agreement to purchase a majority interest in **SEB**, which engages in both plastics injection molding and metal stamping.

• Perhaps the most visible example of the mega-vertical trend in action is **Jabil Circuit's** acquisition of **Taiwan Green Point Enterprises**, a plastics supplier, early this year (Nov. 2006, p. 1-2; Jan. 2007, p. 6). This deal gave Jabil a vertical capability in electromechanical parts for mobile phones and other consumer products. The acquisition addressed the handset supply chain in particular, since when the deal was announced, Green Point had a 12% market share in handset casings.

Green Point is part of Jabil's newly formed Consumer Division, which goes into effect Sept. 1. The division will combine dedicated design resources with vertically integrated sup-

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ply chain solutions and certain existing and planned manufacturing operations to provide low-cost solutions for mobile phone and other consumer electronics customers. Jabil sees the needs of its consumer products customers as distinct from those of its other customers, who will be served by a separate EMS Division.

• **Elcoteq**, a top-ten EMS provider, is working on broadening its offering for terminal products customers, especially mobile phone manufacturers. Under its Integrated EMS strategy, Elcoteq is striving to add mechanics expertise and services as well as combine electronics and mechanics capabilities for product development (July, p. 4). Besides developing existing operating models, the company has said that certain M&A arrangements will be needed to carry out this plan. Another option is to look at various forms of collaboration with other companies

operating in the same field.

According to Elcoteq, mobile phone manufacturers need partners to independently manage a wider range of services because of more complex product structures and shorter product lifecycles.

Jouni Hartikainen, Elcoteq's president and CEO, told analysts in July he believes that the company can stop the trend in declining sales to Nokia with what is contained in Elcoteq's Integrated EMS plan. (Together, the Nokia and **Ericsson** groups accounted for 53% of Elcoteq's sales in Q2 2007.)

Nokia finds that several benefits accrue from utilizing a mega-vertical supplier. The company informs *MMI* that a consolidated supply chain adds some cost effectiveness, provides flexibility, and leads to smaller overhead costs for Nokia.

With Nokia's blessing, this mega-vertical trend is here to stay.

ture HP desktop PCs for the Russian market and that production will extend to LCD monitors and other computer devices.

According to Taiwan source *Digitimes*, a Hon Hai spokesman acknowledged in a Chinese-language daily that company intends to locate a PC factory in Russia.

Kommersant reports that based on an optimistic timetable construction could be begin in the fall and finish in twelve months.

Hon Hai's interest in Russia didn't just materialize. Indeed, the company was said to be planning an investment in Russia back in 2005 (Nov. 2005, p. 1). At that time, a Russian business newspaper reported that Hon Hai's spending in Russia would total up to \$2 billion.

Jabil has also given Russia an endorsement. At the company's shareholders meeting held this month, CEO Tim Main said it is likely that Jabil will have a site in Russia sometime in the next few years. For a company like Jabil that already manufactures in Po-

land, Hungary and Ukraine, Russia could be viewed as the next logical step.

Elcoteq paves the way

To the EMS industry at large, Russia is virgin territory. But one global provider, **Elcoteq**, has been manufacturing in Russia since 1998. Starting out with a small operation in St. Petersburg, the company opened a much larger 14,700-m² plant in the city in 2005. At that time, Elcoteq told *MMI* that the provider viewed Russia as both an emerging market and a low-labor-cost country (Nov. 2005, p. 1-2).

But success has been elusive for this facility, which is still a loss maker. "We have quite a lot of, let's say, room to improve in Russia still," said Jouni Hartikainen, Elcoteq's president and CEO, during a July conference call to discuss quarterly results.

Plant loading has not improved as the company thought it would. After moving some production to Russia, Elcoteq had planned to transfer more work to St. Petersburg as a result of closing some facilities. But customers had other ideas, and production went to China instead.

According to Elcoteq's website, its St. Petersburg plant employs about 500 people. At full capacity, the plant was expected to need about 1,500 employees (Nov. 2005, p. 1).

One obstacle to manufacturing in Russia arises in the duties assessed on imported components, especially those used in mobile phones. "It has been cheaper to bring [in] a complete phone than actually to bring the components in, and now they are changing it," said Hartikainen. To encourage mobile phone production for the Russian market, a government commission has decided to do away with duties on certain types of components, *Kommersant* reports. Hartikainen pointed out that it will take "quite a long time" to put this change into practice. According to the Russian daily, the decision followed

World Markets

EMS Plans for Russia

The only BRIC country that has not sprouted a cluster of EMS factories is the country that begins with an R – Russia. But the two top-six providers who have recently lent their imprimatur to Vietnam – **Hon Hai Precision Industry** and **Jabil Circuit** – appear poised to do the same for Russia.

Hon Hai (also known as **Foxconn**) plans to invest some \$50 million in a new plant to be built in or near St. Petersburg, Russia, according to two Russian news sources, *RIA Novosti* and *Kommersant*. They report that the plant will begin manufacturing for **HP**, and both sources agree that the facility will assemble PCs for this customer.

However, they differ somewhat on other details. *RIA Novosti* says the Russian plant will produce HP product lines including PCs, LCD monitors and network equipment to be sold domestically and globally. *Kommersant* reports that the facility will manufac-

lobbying by Elcoteq, which reportedly promised to manufacture up to 4 million phones for the Russian market.

Note, however, that duties on components used in products exported by Elcoteq may be treated differently.

Among Russia's other challenges is the country's bureaucracy. For example, dramatic changes in import and export custom clearance procedures in late 2006 caused major trucking delays for Elcoteq in early 2007, according to a company presentation of February 2007. At that point, Elcoteq had employed a logistics process set up specifically for its Russian operation. The process allowed Elcoteq to achieve 24-hour transit times from 2002 to 2006. Due to the number of changes and updates to codes and customs clearance procedures in Russia, the company has not yet resumed 24-hour transit times.

In July 2005, Elcoteq applied for Green Corridor status, which would allow for electronic information transfer for customs clearance. That application is still pending; according to Elcoteq, Russia has been stingy in granting this status.

As a source of low-cost labor, Russia will face competition from the likes of Ukraine and Romania, which are located closer to some markets in Western Europe. St. Petersburg does have one distinct advantage – some 23 technical universities that feed an educated labor pool (Nov. 2005, p. 2).

But the essential difference between Russia and other Eastern European countries is the potential to supply products for the Russian market. It can be assumed that assembling HP PCs for the Russian market had much to do with Hon Hai's decision to set up a plant in Russia. Perhaps more than anything else, the growth and demands of the Russian market, where local content is desirable for certain government-affiliated projects, will determine the course of an EMS industry in Russia.

Market Data

New Forecasts for Outsourcing Business

New forecasts of the outsourcing business, consisting of the EMS plus ODM sectors, show that the business will double in size. The only question is when. According to the latest projections from **Electronic Trend Publications** (San Jose, CA), the outsourcing market will double in five years, while new analysis from **Frost & Sullivan** predicts that the business will end up at more than twice its size in seven years.

A new report from Electronic Trend Publications (ETP) estimates that the outsourcing market will reach \$442.5 billion in 2011, up from a 2006 value of \$222.8 billion (Table 1).

years, the penetration rate will rise by more than ten percentage points to a predicted value of 34.6%, which still leaves room for more outsourcing (Table 1).

ETP has raised its 2006 to 2010 estimates from the firm's previous forecast issued last year (July 2006, p. 3). For example, the 2006 outsourcing estimate increased by \$9.8 billion, while the 2010 projection went up by \$62.7 billion.

As one might expect, the study forecasts that Asia's share of the outsourcing business will continue to increase over the forecast period, ending up at 67% in 2011 (Table 2). But ETP believes that the migration from high- to low-cost regions will occur at a more moderate pace as labor cost advantages decline when weighed against the total delivered cost including transportation and logistics.

	2006	2007	2008	2009	2010	2011	CAGR %*
Outsourcing market	\$222.8	\$268.5	\$308.0	\$351.5	\$391.1	\$442.5	14.7
Total assembly market	\$922.9	\$1,001.3	\$1,095.8	\$1,094.8	\$1,178.9	\$1,279.9	6.8
Penetration %*	24.1	26.8	28.1	32.1	33.2	34.6	

Source: Electronic Trend Publications *Supplied by MMI

These values correspond to a compound annual growth rate of 14.7% over the five years of the forecast period. This rate is more than twice the projected CAGR of the total assembly market of both outsourced and in-house manufacturing. Still, ETP predicts that total assembly value will exceed \$1 trillion this year.

According to the ETP study, the outsourcing business (EMS plus ODM markets) will grow by 20.5% this year to \$268.5 billion (Table 1). In subsequent years, sequential increases will range from 14.7% in 2008 to 11.3% in 2010.

Based on ETP's estimates, outsourcing achieved 24.1% penetration of the total assembly market in 2006. In five

Asia's gain, of course, is mostly North America's and Europe's loss. The ETP report projects that North America's share of the outsourcing market will decline to 16% in 2011 from 23% in 2006. Similarly, Europe's share will fall to 14% in 2011 from 19% in 2006.

ETP believes that the communications and medical segments of the outsourcing business will produce the strongest rates of growth over the next five years. The firm also predicts that the computer and defense segments

Year	N. America	Europe	Asia	Rest of World
2006	23	19	54	4
2011	16	14	67	3

Source: Electronic Trend Publications

will see substantial growth and, to a lesser degree, the consumer and industrial segments. ODMs will benefit from expansion in the communications and computer segments, writes ETP.

The communications segment will gain 11 percentage points of market share as segment revenue rises from 32% of the market in 2006 to 43% in 2011, according to ETP's forecast. While the medical sector will also generate robust growth, medical gains will not be enough to move the needle of market share, which will hold steady at 5%. Segments losing market share over the forecast period will be computer, dropping from 38% to 33%; consumer, sliding from 12% to 9%; industrial, slipping from 7% to 5%; and commercial aviation, falling from 2% to 1%. Automotive and defense/other will remain at 2%.

ETP's report rates the performance of EMS providers and ODMs based on a weighting of certain financial metrics. In 2006, **Jurong Technologies**, a publicly held EMS provider based in Singapore, earned the highest performance rating. The provider received high rankings in five-year revenue growth and net income improvement, but also scored well in ROA, ROE, revenue per square foot, inventory turns, and debt ratio. **HTC**, an ODM, dropped to second in 2006 after ranking number one in 2005. **Hon Hai** (Foxconn) rose to third place from fifth position the previous year.

According to ETP, the outsourcing industry (EMS + ODM) made substantially more money in 2006 than in any previous year.

Note that the report uses the term EMS market throughout its pages to refer to the total outsourcing space comprised EMS providers (the report calls them contract manufacturers) and ODMs. So the report uses EMS in a broader than sense than is otherwise found in *MMI*.

The new ETP report is entitled *The Worldwide Electronics Manufacturing*

Services Market, Fourth Edition.

For more information, email saberry@electronicstrendpubs.com.

Frost & Sullivan's take

A new study from Frost & Sullivan, *World EMS Provider and ODM Convergence Markets*, estimates that the global EMS market generated revenue of \$190.00 billion in 2006 and projects a market size of \$387.42 billion in 2013. These figures amount to a seven-year CAGR of 10.7%.

The \$190-billion estimate for 2006 is above other firms' previous estimates for that year, which averaged \$149 billion (Dec. 2006, p. 1). Lavanya Ram Mohan, a research analyst at Frost & Sullivan, explained that the firm's recent analysis of the global EMS market suggested that 2006 sales of the top 100 players in the market totaled well above \$150 billion and accounted for more than 80% of market revenues. The remaining tier-2 and -3 companies, numbering nearly 5,000 subcontractors, represent at least 15% of the EMS market, Mohan said. Frost & Sullivan's EMS market estimates reflect the responses of its research participants, which include most of the top 500 EMS companies worldwide, the analyst reported.

"Increased outsourcing from automotive and communication industries along with new outsourcing opportunities from the aerospace and defense, medical, and industrial applications industries will likely drive the future growth of the EMS market," Mohan stated.

On the ODM side of the outsourcing space, the firm's analysis pegs the worldwide ODM market at \$100.65 billion in 2006 and predicts this market will attain \$219.00 billion in 2013. These values correspond to a 7-year CAGR of 11.8%, little more than one percent point above the EMS market's projected CAGR. According to the study, ODMs' ability to offer design solutions with high quality and low

cost options will maintain the ODM market's growth rate, described as high, during the forecast period.

In the line with the trend toward more diversified EMS offerings, Mohan said EMS providers will likely establish partnerships with ODMs.

Combining Frost & Sullivan's EMS and ODM market estimates, *MMI* obtained an outsourcing market value of \$290.65 billion in 2006, which is projected to more than double to \$606.42 billion in 2013. The resulting CAGR for the period is 11.1%.

This study is part of the Electronic Manufacturing Growth Partnership Service. For more information, visit <http://www.frost.com>.

Nine-Month Estimate Shows Slippage

MMI's estimate of nine-month sales for six out of the seven largest U.S.-traded providers offers a somewhat disappointing outlook for the period. Collectively, this group of six large providers will not achieve double-digit growth in the period, if the estimate is borne out. Adding the midpoint of each company's Q3 sales guidance to actual sales for the first half, *MMI* came up with an estimated total of \$41.18 billion for the group, which amounted to a less than scintillating increase of 8.1% (Table 1, p. 5). The same group of six posted aggregate growth of 11.3% for the first half of 2007. So on a year-over-year basis, the nine-month estimate represents some three percentage points of slippage from first-half growth.

Based on the estimate, this publicly held group will have to pick up the pace in the fourth quarter in order to achieve double-digit growth for 2007. Indeed, if nine-month sales do come in 8.1%, then the group of six will need collective Q4 growth of at least 14.9% year over year to produce a two-digit growth rate for the full year.

Company	Q1-2 '07 sales	Q3 guidance	Q3 midpoint	Q1-3 '07 estimated sales	Q1-3 '06 sales	% estimated growth
Flextronics	9.83	5.3 - 5.6	5.45	15.28	12.29	24.3
Jabil	5.94	3.0	3.0	8.94	7.86	13.7
Sanmina-SCI	5.10	2.5 - 2.6	2.55	7.65	8.10	-5.6
Celestica	3.78	2.0 - 2.2	2.1	5.88	6.55	-10.2
Benchmark	1.51	730 - 770 M	750 M	2.26	2.17	4.1
Plexus	740 M	425 - 440 M	433 M	1.17	1.13	3.5
Total/avg.				41.18	38.10	8.1

Q1-3 estimates equal Q1-2 actual sales plus midpoint of Q3 guidance.

Estimated nine-month growth rates among the six providers, of course, vary. The largest company in the group, **Flextronics**, also has by far the highest projected growth rate of 24.3% for the period. Only one other provider, **Jabil Circuit**, is expected to reach double digits. What's more, **MMI** estimates that two providers, **Celestica** and **Sanmina-SCI**, will experience sales declines for the first nine months (Table 1).

On a sequential basis, the nine-month projection does supply some encouragement. Q3 sales for the group are estimated at \$14.28 billion, or 4.1% above actual sales in Q2.

Note that the forecast group now excludes **Solectron**, which has ceased issuing guidance in light of Flextronics' prospective acquisition of the company. **Nam Tai Electronics** is also absent from the group because it stopped providing quarterly guidance.

MMI has also tabulated GAAP Q2

and first-half 2007 results for the above six companies plus **Solectron** and **Nam Tai** (Table 2). Seven out of eight large providers showed sequential improvement in their Q2 sales. Revenue for the eight increased 3.9% in the aggregate over Q1. Versus a year earlier, combined Q2 sales were up 8.0%.

Flextronics led the group in year-over-year growth for the quarter, with Jabil and Solectron also posting double-digit increases. Half of the group – Celestica, Nam Tai, **Plexus** and Sanmina-SCI – saw their Q2 sales shrink from a year earlier.

Despite the group's overall growth, combined inventory of the eight providers shrunk by \$308.8 million, or 3.4%, in Q2 (Table 3, p. 6). Celestica turned in the group's best result with a double-digit drop in inventory. Five out of eight providers achieved inventory reductions in the quarter. As a key lever for improving cash flow, inven-

tory management has become an industry priority.

In the aggregate, GAAP margins in the quarter retreated from year-earlier levels, not an uplifting sign. Combined gross and operating margins fell 40 and 30 basis points respectively from Q2 2006 (Table 2). Nam Tai had the highest GAAP operating margin (6.0%) in this year's second quarter, followed by Plexus (4.8%). Only two providers, Celestica and Sanmina-SCI, improved their operating margins from a year earlier. (Note that we define GAAP operating margins as including amortization of intangibles. Flextronics, for one, does not follow this definition.)

Nevertheless, the group bettered its bottom line in Q2, both sequentially and year over year. GAAP net income amounted to \$202.7 million, up 52.9% from the prior quarter and 14.7% from the year-earlier period. The sequential gain largely resulted from the positive swings of two companies, Celestica and Nam Tai.

First-half results also showed improvement in combined net income. The group of eight together generated net earnings of \$335.3 million for the first two quarters of 2007, an increase of \$52.3 million, or 18.5%, over a year earlier. Aggregate sales rose 11.4% in the first half to \$33.18 billion.

Although this growth is in line with long-term projections for EMS industry (Dec. 2006, p. 1), it didn't come close to the non-consolidated sales

Company (in order of 6-mo. sales)	Q2 '07 sales	Q1 '07 sales	Qtr.- qtr. chg.	Q2 '06 sales	Yr.-yr. chg.	Q2 '07 gross marg.	Q2 '06 gross marg.	Q2 '07 oper. marg.	Q2 '06 oper. marg.	Q2 '07 net inc.	Q1 '07 net inc.	Q2 '06 net inc.	Q1-2 '07 sales	Q1-2 '06 sales	Yr.-yr. chg.	Q1-2 '07 net inc.	Q1-2 '06 net inc.
Flextronics	5,157.0	4,676.8	10.3	4,059.1	27.0	5.4	5.8	2.3	2.7	106.9	120.7	84.5	9,833.8	7,590.0	29.6	227.6	127.4
Jabil	3,001.9	2,934.9	2.3	2,592.5	15.8	7.3	7.2	1.1	3.0	6.2	13.9	64.2	5,936.8	4,907.5	21.0	20.1	133.2
Solectron	2,985.3	2,901.9	2.9	2,702.6	10.5	5.1	5.3	0.3	1.0	12.1	15.3	42.0	5,887.2	5,202.2	13.2	27.4	72.4
Sanmina-SCI	2,488.4	2,611.7	-4.7	2,707.9	-8.1	4.8	6.0	0.5	-0.6	(27.6)	(26.1)	(54.8)	5,100.1	5,376.3	-5.1	(53.7)	(130.9)
Celestica	1,937.0	1,842.3	5.1	2,223.5	-12.9	4.7	5.6	0.8	-0.5	24.9	(34.3)	(30.3)	3,779.3	4,157.5	-9.1	(9.4)	(47.7)
Benchmark	756.3	752.5	0.5	749.2	0.9	7.2	7.0	3.6	4.4	25.9	24.5	27.5	1,508.8	1,400.4	7.7	50.4	54.0
Plexus	379.6	360.2	5.4	397.4	-4.5	10.1	11.4	4.8	6.0	15.5	10.2	25.1	739.8	735.3	0.6	25.7	43.6
Nam Tai	197.8	191.6	3.2	213.7	-7.4	11.5	9.7	6.0	9.4	38.8	8.4	18.5	389.4	422.0	-7.7	47.2	31.0
Total/avg.	16,903.3	16,271.9	3.9	15,645.9	8.0	5.8	6.2	1.4	1.7	202.7	132.6	176.7	33,175.2	29,791.2	11.4	335.3	283.0

Table 3: Inventory for Eight Large EMS Providers

Company (in order of 6-mo. sales)	Q2 '07 inven- tory	Q1 '07 inven- tory	Change
Flextronics	2,514.9	2,562.3	-1.8
Jabil	1,446.5	1,532.7	-5.6
Solectron	1,830.8	1,799.5	1.7
Sanmina-SCI	1,132.6	1,217.1	-6.9
Celestica	954.9	1,080.7	-11.6
Benchmark	500.9	512.5	-2.3
Plexus	253.8	244.1	4.0
Nam Tai	36.8	31.1	18.3
Total/avg.	8,671.2	8,980.0	-3.4

gain of **Hon Hai Precision Industry** (also known as Foxconn) for the first seven months of 2007. The world's largest provider racked up sales of NT\$607.22 billion (about \$18.5 billion), up 41.3% year over year. If Hon Hai's consolidated sales also grew at or near this rate, it has continued in

2007 to take more market share from this group of US-traded competitors.

Results for five smaller EMS providers, all U.S.-traded, also appear here (Table 4). Unlike the large US-traded providers, combined Q2 sales for this group dipped from a year earlier, albeit by less than 2%. **Suntron's** double-digit decline was largely responsible. In Q2, both **LaBarge** and **Nortech Systems** posted healthy double-digit increases year over year. In contrast with the group's year-over-year dip in Q2 sales, aggregate sales for the quarter rose by 2.2% sequentially, with Nortech reporting a two-digit gain.

These smaller providers produced a combined Q2 gross margin, 11.7%, that was double what their large counterparts achieved. Compared with the year-earlier quarter, aggregate gross margin for the smaller providers de-

clined by a mere 10 basis points in Q2, while group operating margin decreased by 20 basis points to 3.5%. Still, this operating result was 210 basis points above the combined margin of the large-provider group. **LaBarge** led the smaller providers in both Q2 gross and operating margin. **Key Tronic** and **Nortech** raised their operating margins year over year.

As for Q2 net income, all five of the smaller providers were in the black, although combined net earnings were down by \$3.7 million, or 37%, from the year-earlier quarter.

For the first half of 2007, total sales for the smaller providers slipped by 1.7% versus the year-ago period, but overall net income declined by 16.3%. Still, four out of five providers (**Key Tronic** was the exception) improved their bottom line in the first half from a year earlier.

Table 4: Q2 and Six-Month 2007 GAAP Results for Five Smaller EMS Providers, US Traded (M\$ or %)

Company (in order of 6-mo. sales)	Q2 '07 sales	Q1 '07 sales	Qtr.- qtr. chg.	Q2 '06 sales	Yr.-yr. chg.	Q2 '07 gross marg.	Q2 '06 gross marg.	Q2 '07 oper. marg.	Q2 '06 oper. marg.	Q2 '07 Q1 '07 net inc.	Q1 '07 net inc.	Q2 '06 net inc.	Q1-2 '07 sales	Q1-2 '06 sales	Yr.-yr. chg.	Q1-2 '07 net inc.	Q1-2 '06 net inc.
SMTC	66.1	69.5	-4.9	61.1	8.2	8.8	11.1	2.6	4.3	0.1	2.8	1.3	135.6	121.1	12.0	2.9	2.3
Suntron	64.2	65.2	-1.5	85.1	-24.6	9.2	7.3	-1.6	-0.4	0.3	(1.7)	(1.3)	129.4	180.9	-28.5	(1.4)	(2.4)
LaBarge	64.9	59.6	8.9	55.0	18.0	18.0	20.4	7.6	9.5	2.9	2.8	2.7	124.5	102.3	21.7	5.7	5.0
Key Tronic	49.2	47.2	4.2	52.5	-6.3	9.1	10.3	6.5	4.6	2.7	0.7	7.1	96.4	98.1	-1.7	3.4	8.0
Nortech	31.1	28.0	11.1	26.2	18.7	13.8	13.0	2.7	2.4	0.4	0.3	0.3	59.1	52.2	13.2	0.7	0.6
Total/avg.	275.5	269.5	2.2	279.9	-1.6	11.7	11.8	3.5	3.7	6.4	4.9	10.1	545.0	554.6	-1.7	11.3	13.5

News

Flextronics To Make Medical Deal

Flextronics (Singapore) has entered into a definitive agreement to acquire **Avail Medical Products**, a privately held manufacturer of disposable medical devices.

According to Flextronics, the addition of Avail combined with the medical capabilities afforded by the pending **Solectron** acquisition will significantly broaden Flextronics' offerings in the medical segment and establish Flextronics as a leading supplier in that segment.

Closing is expected before the end of the year.

Update on the Flextronics-Solectron deal... Solectron (Milpitas, CA) will hold a special meeting of its stockholders on Sept. 27 to consider and vote upon the pending acquisition of the company by Flextronics (June, p. 1-5). The acquisition has been cleared by both U.S. authorities and the European Commission.

Although Flextronics modeled in a potential revenue loss of \$1.5 billion from shared customers moving business out of the combined company, CEO Mike McNamara told analysts in July that "we're going to beat that number very substantially."

Creation Acquires Two U.S. Providers

Creation Technologies (Burnaby, B.C., Canada), has made two deals that expand its presence in the U.S. The Top 50 EMS provider has purchased one EMS company, **SMC** of Lexington, KY, and finalized the acquisition of another, **Taytronics** of Saint Peter, MN. The latter deal was announced previously (July, p. 5). These acquisitions expand Creation's footprint in the Central U.S. and extend it into the Eastern U.S.

In addition, the transactions firmly position Creation among the top 15 providers in North America, says Cre-

ation, and mark the fourth and fifth in a series of acquisitions that the company has made in the U.S. in the past four years.

"These companies fit well with Creation's current businesses, as both have cultures, leadership styles, people skills and experiences, service and technical capabilities, profit momentum, and revenue growth opportunities that match ours," stated Arthur Tymos, president and CEO of Creation.

The Taytronics operation, Creation's eighth business unit, will be renamed **Creation Technologies – Saint Peter**, while the SMC activity, the company's ninth business unit, will become **Creation Technologies – Lexington**. General managers John Makela and Greg Howard will continue to oversee employees in the Saint Peter and Lexington facilities respectively.

Employing 325 people, SMC has been servicing OEMs in the Central and Eastern U.S. regions since 1994. Earlier this year, SMC announced plans to add 18,000 ft² to its 55,000-ft² facility (April, p. 7).

Divestitures by EMS companies...

Jabil Circuit (St. Petersburg, FL) has sold a switching power supply business, **Celetronix Power India Private Limited** (Mumbai, India), to **Red Rocket** (Camarillo, CA). Jabil obtained this business as part of its **Celetronix** acquisition in 2006....**Sanmina-SCI** (San Jose, CA) has divested its Perth, Australia, operation, which generated sales of about \$35 million in 2006. **Startronics**, an EMS provider based in Sydney, Australia, bought the operation for about \$30 million. The deal will form the largest EMS company in Australia, according to Startronics. This operation is one of a few nonstrategic plants that Sanmina-SCI has decided to sell.

New business... In Q2, Flextronics began delivering commercial chassis

subassemblies to **Insulet** (Bedford, MA), a manufacturer and marketer of an insulin management system.

...Under a new multiyear contract, Solectron will provide manufacturing services for **LSI's** Engenio storage systems. LSI will complete the transfer of operations to Solectron by the first half of 2008. Terms of the deal were not disclosed.... Sanmina-SCI's Defense and Aerospace Division has received a U.S. Air Force contract to redesign the F-15C/D Integrated Communication Control Panel. This redesign will utilize Sanmina-SCI's third-generation FireComm intercommunications system for digital audio and data processing. Upon successful qualification, the division hopes to see the FireComm system integrated into the entire F-15C/D fleet....**NeuroMetrix** (Waltham, MA) has engaged **Sunburst EMS** (West Bridgewater, MA) to manufacture NeuroMetrix's new neurodiagnostic instrumentation.

New Player in China

Nova ETS, a supplier of customized components, security systems and tracking products, has set up an EMS division in China called **EMS Nova ETS** offering vertically integrated services from four production sites in the Guangdong and Shenzhen regions.

In July, Nova ETS bought two factories in China, bringing its total EMS work force to 2000 people, according to the EMS division's website.

At the moment, EMS Nova ETS is mainly producing digital set top boxes. The EMS provider has also announced some new major orders from Ukraine and Russia for other projects.

Established in 2001, Nova ETS has offices in the UK and Taiwan.

Targeting UK Defense and Aerospace

US-based EMS providers aren't the only ones looking for growth from do-

mestic customers in the defense and aerospace sector. Two EMS providers in the UK are also involved in efforts to increase sales in the sector.

TT electronic manufacturing services, an EMS provider based in Rog-erstone, UK, is part of a new defense and aerospace initiative launched by its parent company, **TT electronics**. The parent has formed a single supply source to deliver to integrated solutions to the company's UK-based defense and aerospace customers. Also participating in this initiative are TT subsidiaries **AB Connectors**, **MMG MagDev** (magnetics), and **Welwyn Components** (resistors and microelectronic assemblies).

Following the start of this initiative, TT electronics has won new contracts including systems for the latest phase of the Eurofighter program.

Then there's **Axiom Manufacturing Services**, a provider operating in Newbridge, UK. Axiom has invested an additional £1 million in production and test technology as it steps up its presence in the UK aerospace and defense market. The company said it has already forged links with key industry players.

New facilities... Taiwan's **Hon Hai Precision Industry** (also known by its **Foxconn** trade name) has signed an agreement with local authorities to develop a software base in Nanjing, China, according to a report on the Nanjing City website and other sources. Reportedly, the company's goal is to attract 30,000 software engineers in five years, and the site has already begun operations. News sources say Hon Hai signed a letter of intent early this year. In Vietnam, Hon Hai has opened two plants at the Que Vo Industrial Park in northern Bac Ninh province, a Vietnamese newspaper reported. The factories, Hon Hai's first in Vietnam, will focus on making camera modules, motherboards and connectors, according to the newspaper *Nhan Dan*. Hon

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Hai is said to be planning an industrial park, a residential area, a golf course, a hospital and an amusement park for the province. In Bac Giang, the other Northern Vietnam province that Hon Hai has slated for investment, the company will reportedly build a similar complex. The company is also investing in central Binh Dinh province and Ho Chi Minh City, Vietnam news sources have reported, as part of a \$5-billion investment in the country (July, p. 7). What's more, **Innolux Display**, an affiliate of the Hon Hai group, is aiming to put an LCD facility in Vietnam, reports Taiwan source *Digitimes*. ...*Interfax China* reports that Flextronics has agreed to invest \$10 million to set up a mobile phone R&D center in Chengdu, located in China's Sichuan Province. ...Thai EMS provider **Cal-Comp Electronics**, part of the **New Kinpo Group** (Taipei, Taiwan), intends to form a joint venture for producing CDMA cell phones in India, according to *Digitimes*.

People on the move... Sanmina-SCI has named Joseph Bronson president and COO, a position that has been vacant since the departure of Randy Furr in 2005 (Oct. 2005, p. 7). Bronson was also elected to the company's board. He most recently served as president and director of **FormFactor**, a manufacturer of wafer probe cards, and also

spent 20 years at **Applied Materials**, where he ended up as executive VP and CFO. Another new member of Sanmina-SCI's board is Joseph Licata, president and CEO of **SER Solutions**, which does business in call management and speech analytics. In addition, Sanmina-SCI has hired Walt Hussey as president of its Technology Components Group. Most recently, Hussey was VP of global manufacturing and distribution for **Symbol Technologies**, now part of **Motorola**. ...Jabil, which is splitting its EMS operations in two, has appointed John Lovato executive VP and CEO of its new Consumer Division (see also p. 1). Likewise, the company has named William Muir executive VP and CEO of its EMS division, also a new entity. Both men are Jabil veterans. In addition, Scott Brown, senior VP of **Jabil Technology Services**, will become VP of strategic planning. ...**Elcoteq** (Espoo, Finland) has promoted Mikko Puolakka to CFO. He replaces Teo Ottola who is moving to another company. ...John Haydon will join **Brecon-Ridge Manufacturing Solutions** (Ottawa, Canada), an *MMI* Top 50 EMS provider, as president and COO, effective Sept. 10. Formerly **Nortel's** chief procurement officer, Haydon held a number of senior management positions during his 25-year career at Nortel. ...Jim Williams has joined

Contract Manufacturing Consultants (Bellevue, WA) as a senior consultant. He has over 15 years of senior management experience with **Celestica** and **Sollectron** and worked on the vice-president level at both companies. ...**Lincoln International** (Chicago, IL), a mid-market investment bank, has brought in John McManus as a senior director in its global Electronics Group. McManus, a well-known Wall Street analyst and banker, has spent his career covering the electronics industry. EMS is among the segments in which he developed expertise.

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