

# Manufacturing Market™ INSIDER

inside the contract manufacturing industry

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## Big Drop in First-Half M&A

### Consolidation Deals Disappear

Deal making in the EMS industry fell off a cliff during the first half of 2009. Just six transactions closed in the period, compared with 30 in the first six months of 2008 (Chart 1). The number of deals done in the first half of 2009 dropped by 80% year over year, a decline of historic proportions. Moreover, you would have to go back about 15 years to find industry M&A at this level.

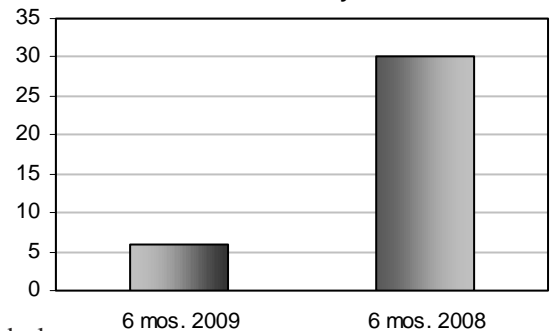
Clearly, the global downturn has taken a toll on industry deal making. During the first half, many EMS companies were hoarding cash to strengthen their balance sheets during this period of overall weak demand. Cash outlays for acquisitions along with other capital expenditures were to be avoided. Other factors were also at play, *MMI* believes. Credit markets had not completely thawed out during the first half, probably keeping some potential purchasers on the sidelines. Market uncertainty contributed as well to the paucity of transactions. Providers could not predict when their own businesses would return to growth, let alone project how an acquisition would do. If a potential buyer cannot project sales and earnings for an acquisition candidate, it's difficult to assign a value to that business.

It is unknown how many potential deals were abandoned or called off as

a result of market conditions in the first half. One case, however, has come to light. **Neways Electronics International** (Son, The Netherlands) recently announced that its intended acquisition of a part of the activities of **Bosch Security Systems** has been cancelled (Dec. 2008, p. 7-8). Neways said the deal was called off because of disappointing developments in the security products market, which in turn were a consequence of the current economic climate.

There had been talk that one source of M&A – consolidation deals – would increase as a result of the downturn. According to this view, the downturn would bring about a wave of consolidation deals as providers made opportunistic purchases of weakened competitors. In fact, just the opposite happened. The number of consolidation deals went from 12 in the first half

Chart 1: EMS Industry M&A Deals



of 2008 to zero in the first half of 2009. In physics terms, consolidation became a weak force during the period, overwhelmed by the downturn's strong forces.

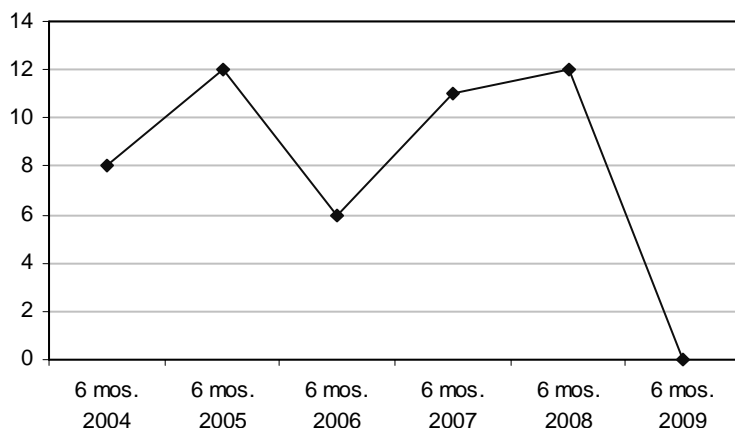
The absence of consolidation deals in the first half of 2009 not only was a drastic change from the year-earlier period, it represented a departure from a long-standing trend. Until this year, the loss of independent providers through acquisition had been an ongoing industry theme. Over the past five years, the number of independents that vanished in first-half consolidation

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## First-Half M&A

Chart 2: First-Half Consolidation Deals Over Time



deals ranged from six to 12 and averaged 9.8 a year (Chart 2).

In the first half of 2009, M&A transactions fell into four categories traditionally used by *MMI*. Consolidation deals comprise a major part of one of these categories. In this type of deal, one provider acquires another's operation. The acquired unit could be an entire EMS company or a part of one. Not only were there no consolidation deals in the first half, but there was not a single case of an EMS operation of any kind being acquired by a competitor.

Acquiring a competitor's operation had grown increasingly popular over the previous two calendar years, reaching an eight-year high in 2008. In the first six months of 2008, EMS providers acquired 14 competitor operations (12 of which were consolidation deals where an entire company was purchased). What's more, this was the most common type of deal made in 2008. And yet no competitor operations were bought in the first half of 2009 (Chart 3).

A second category is characterized by a buyer outside the EMS industry acquiring an operation within it, resulting in a new industry player. One new-player deal closed in the first half. In this case, **Jurong Technologies** (Singapore), which is under judicial management, divested its PCBA operation in Tianjin, China, to a new EMS enti-

ty. By comparison, in the first half of 2008, four new-player deals took place. It is not surprising that just one outside buyer entered the industry in the demand-challenged first half of 2009.

Another kind of deal, dubbed the service or supply chain extension, drew the majority of first-half buyers. Here, an EMS provider makes an acquisition to extend its capabilities either horizontally or vertically. In the first-half of 2009, four such deals took place, compared with 11 in the year-earlier period. Although numbers were down by 64%, this kind of deal was still the only one to attract multiple providers willing to spend capital on an acquisition. **Enics** (Baden, Switzerland) acquired development capability for industrial customers; **NBS** (Santa Clara, CA) made a deal adding know-how in materials, project and business management; **Jaltek Group** (Luton, UK) bought a company specializing in remote asset telemetry and monitoring; and **Benchmark Electronics** (Angleton, TX) acquired precision machining capabilities through a small

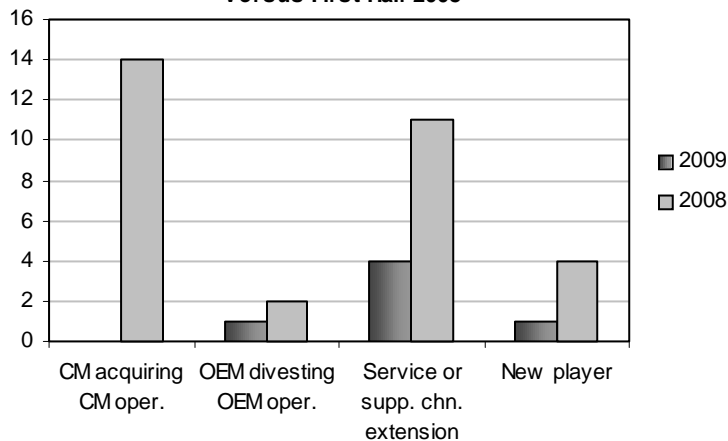
asset purchase.

An appealing quality of a capabilities extension is that a provider is often acquiring a company that is a good deal smaller than itself with a price tag that is commensurate with the size of the acquisition. Lower acquisition costs are obviously a selling point during a recession. Still, the drop-off in deals of this type indicates that in the business climate of the first half some providers either elected to put off acquiring a new capability or decided to develop it in-house instead.

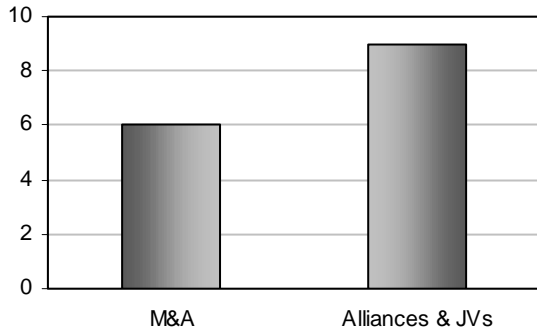
In the final deal category, an OEM divests assets to an EMS provider. During the first half, one such transaction was reported: **Sanmina-SCI** (San Jose, CA) acquired **JDSU's** manufacturing operations in Shenzhen, China. By comparison, two of these transactions occurred in the first half of 2008. OEM divestitures have been on the decline over the last two years, reflecting reluctance among providers to acquire OEM facilities, particularly those in high-cost locations, and a shrinking pipeline of divestiture opportunities.

Deal making is not the only way to achieve a provider's objective. A company can gain access to another's capabilities, technology, footprint or customers through an alliance or joint venture. These arrangements generally cost much less than acquiring a partner, an advantage that is underscored

Chart 3: Deal Breakdown First Half 2009 Versus First Half 2008



**Chart 4: First-Half M&A Versus Alliances and Joint Ventures**



during a recession. That's probably one reason why the number of industry alliances and joint ventures exceeded the number of M&A transactions for the first half of 2009. *MMI* counted nine alliances and JVs for the period versus six M&A deals (Chart 4).

#### **Hon Hai Precision Industry**

(Tucheng City, Taiwan) is a partner in four of the alliances and joint ventures. The world's largest EMS provider is involved in two green alliances, one involving **IBM** for carbon emissions in the Asia-Pacific region and the other

with **HP** for recycling in China (March, p. 7). In another case, Hon Hai invested in a biomedical company, with whom Hon Hai is reportedly setting up a joint venture in health care. What's more, the provider signed an MOU with Germany's **Metro Group** to form venture in retail. It's no wonder that Hon Hai has engaged in such a variety of partnerships, given the size and scope of its operations.

**Flextronics** (Singapore), the second largest provider and a Hon Hai rival, also entered into a joint venture. Formed with **Asia Optical**, this venture combines the digital camera businesses of the two partners (April, p. 5).

But an EMS provider did not need to be an industry giant in order to form a partnership. During the first half, **Alta Manufacturing** (Fremont, CA), **Distron** (Attleboro Falls, MA) and the medical unit of **Sparton** (Jackson, MI) each made an alliance to gain access to

design and/or engineering capability. Finally, EMS provider **Key Electronics** (Jeffersonville, IN) and plastics supplier **Genesis Plastics and Engineering** (Scottsburg, IN) joined forces in a venture that combines their offerings.

Last year, there were 22 alliances and other partnerships tracked by *MMI*. If partnerships continue to form at the rate they occurred in the first half, then the 2009 total would be 18. This projection, if it proves true, would show that such partnering held up pretty well during the global recession.

*Editor's note:* First-half 2009 statistics published here should be treated as preliminary. It is possible that *MMI* will come across additional first-half transactions after this article is published. Also be advised that this analysis excludes divestitures by EMS providers where the operations sold are not retained within the EMS industry. Private equity deals are omitted as well.

## Market Sector

### **EMS Providers Outnumbered on LCD-TV List**

#### **More LCD-TV outsourcing expected**

Among the top-ten providers of contract manufactured LCD TVs in Q1 2009, just two were EMS companies, according to a new quarterly report by **DisplaySearch**. **Jabil Circuit** and **Elcoteq** were the only EMS providers ranked by the report in the top ten.

Although the EMS industry is underrepresented among the largest contract manufacturers of LCD TVs, outsourcing in this space is significant among certain brands and is projected to grow overall next year. DisplaySearch reported that 25% of LCD TVs

shipped in the first quarter were farmed out to contract makers, and the firm says the outsourcing level is likely to increase to 30% or more in 2010.

Still, contract manufacturing of LCD-TVs in 2008 fell short of a projection made by another market research firm, **iSuppli**. The firm's results for 2008 showed that 28.7% of LCD-TVs were outsourced last year, compared with its earlier forecast of 35.2%. Expecting this trend to continue in 2009, **iSuppli** has lowered its 2009 forecast for outsourced production to 31.3% from the previous estimate of 37.0%. Likewise, the firm has reduced its forecast for the next three years. Contract manufacturers are now expected to supply 34.0% of LCD TVs in 2010, down from the prior projection of 38.8%. For 2012, the outsourcing penetration has been lowered to 38.5%.

LCD-TV outsourcing did not live

up to expectations primarily because of weakened demand resulting from the recession, said **iSuppli**. "Japanese and Korean OEMs needed to retain enough production in-house in order to rationalize their cost structures and to optimize their internal capacity utilization rates," stated Jeffrey Wu, senior analyst for EMS and ODM at **iSuppli**. Over the last two years, Japanese and Korean OEMs invested in TV manufacturing clusters, including LCD capabilities, in China and Eastern Europe, reported **iSuppli**. In the firm's view, this expansion of internal capacity resulted in a slowdown of outsourcing last year.

Nevertheless, the economic pressures of the LCD-TV business will work in favor of more contract manufacturing. Count **Sony** among the LCD-TV OEMs expected to increase the extent of its outsourcing. In January, the company stated it would "pur-

sue further OEM/ODM deployment and a far-reaching asset light strategy” for its LCD-TV business (Jan., p. 5). Under corporate restructuring initiatives, Sony closed an LCD-TV plant in Pittsburgh, PA, in February. The company also planned to cease LCD-TV design and PCBA at Ichinomiya, Japan, in June and intends to close its LCD-TV plant in Mexicali, Mexico, in September. A **Macquarie Securities** analyst has estimated that Sony could outsource as much as half of its LCD-TV production, a *BusinessWeek* blogger reported. In Q1, the outsourcing ratio for Sony’s LCD-TVs was less than 20%, according to DisplaySearch data.

**Hitachi** is another OEM restructuring its TV business. This month, *The Wall Street Journal* reported that Hitachi will outsource TV production for the U.S. and Europe in an effort to stop losses at its TV unit. According to published reports, Hitachi has closed a flat-panel TV factory in the Czech Republic. In addition, Hitachi has ceased production at its two TV plants in Tijuana, Mexico, the *Journal* reported.

It is ironic that Jabil, the EMS leader in Q1 shipments of LCD TVs according to DisplaySearch, has reduced its exposure to the TV space. Displays, of which TVs form the main part, accounted for 3% of Jabil’s sales in its May quarter, down from 5% in the year-earlier period. Both **Elcoteq** and **Flextronics** have moved in the opposite direction toward increased penetration of the TV space (Jan., p. 4). Interestingly, Flextronics, which has been quite open about winning TV business from Sony, did not crack DisplaySearch’s top-ten LCD-TV contract manufacturers for Q1. Also conspicuously absent was the world’s largest EMS provider, **Hon Hai Precision Industry**.

Taiwan-based ODMs claimed four out of the first five spots in the top-ten list, based on Q1 shipments. **TPV Technology**, which reportedly supplies customers such as **Vizio** and **Philips**, earned first place with 20.6% of Q1 units, according to DisplaySearch, followed by Turkey’s **Vestel**, the only non-Taiwanese company in the first five, at 17.2%. Like TPV,

Vestel manufactures own-brand TVs as well as those that have been outsourced. But Vestel appears to act more like a branded-product OEM that also does private labeling for others. **AmTRAN**, another producer of Vizio TVs, was next with a 12.4% share in the DisplaySearch report. **Wistron** and **Compal** rounded out the top five with shares of 7.9% and 7.0% respectively.

As for the EMS providers, Jabil came in sixth with 5.4% of Q1 shipments, and Elcoteq was ranked ninth at 2.7%.

Of the top ten LCD-TV OEMs, only three outsourced more than 20% of their units shipped in Q1. Vizio was fully outsourced in keeping with its model, while **Philips** contracted out 62%, according to DisplaySearch.

**Toshiba’s** outsourcing level was between 30% and 40%, as indicated by a chart in DisplaySearch’s report.

The report, which is entitled *Quarterly LCD TV Value Chain Report*, found that the outsourcing penetration of TVs shipped in Q1 increased by one percentage point from the prior quarter.

## Forecast

### Report Predicts Return to Growth in 2010

After declining by an estimated 6.6% this year, the contract manufacturing market in 2010 will more than recover the revenue lost in 2009, according to a new report from **Electronic Trend Publications**. The ETP report estimates that this market, consisting of the EMS and ODM sectors, will drop from \$294.0 billion in 2008 to \$274.6 billion in 2009, but will resume growth in 2010. A forecasted 8.2% growth rate in 2010 will propel the contract manufacturing market to \$297.2 billion, which is slightly above its 2008 level. ETP believes that growth should return in 2010, as recovery from the economic downturn begins.

Annual growth rates will accelerate over the following three years, ETP predicts. In 2011, market sales will increase by a projected 10.3% to \$327.8 billion. Growth rates will then rise to 14.4% and 15.9% in 2012 and 2013 respectively, with market revenue expected to hit \$434.8 billion in 2013, the final year of ETP’s forecast (Table 1).

Over the period from 2008 to 2013, the contract manufacturing business will expand by a compound annual growth rate (CAGR) of 8.1%, based

on ETP’s forecast. In contrast, the global market for electronics assembly is expected to increase at a slower CAGR of 5.1%. The EMS industry rests on a bedrock principle that, given the growth enhancing power of outsourcing, contract manufacturing will have a higher CAGR than the overall assembly market will for the foreseeable future. Still, ETP’s report has the overall assembly market growing slightly faster than the contract manufacturing market in 2010 and 2011.

ETP projects that total electronics

**Table 1: ETP’s Contract Manufacturing Market Forecast, 2008-2013 (billions US\$)**

	2008	2009	2010	2011	2012	2013	CAGR %*
Contract manufacturing market**	\$294.0	\$274.6	\$297.2	\$327.8	\$375.1	\$434.8	8.1%
Total assembly market	\$963.7	\$835.0	\$916.4	\$1,030.2	\$1,138.7	\$1,235.9	5.1%
Penetration %*	30.5	32.9	32.4	31.8	32.9	35.2	

Source: Electronic Trend Publications. \*Supplied by MMI. \*\*EMS+ODM.

**Table 2: Contract Manufacturing Market Forecast by Segment (% of total market)**

Segment	2008	2013
Automotive	2	2
Communications	30	29
Computer	36	39
Consumer	17	16
Industrial	7	6
Medical	5	5
Commercial aviation	1	1
Defense/other	2	2

Source: ETP

assembly market will grow from \$963.7 billion in 2008 to \$1.24 trillion in 2013. Over the same period, outsourcing penetration of the total assembly market will start at 30.5% and end at 35.2% (Table 1, p. 4).

EMS providers (called contract manufacturers in the ETP report) will see the best growth in the medical, consumer and computer segments, according to ETP. ODMs will benefit primarily from expansion in the computer, communications and medical segments. In all, the contract manufacturing business will see strong growth with medical, computer and consumer market segments leading the way, ETP writes in its report.

Only one of these three segments is

projected to pick up market share over the forecast period. The computer segment, which accounts for the largest slice of the contract manufacturing pie, will get a share increase from 36% of the total in 2008 to 39% in 2013.

The communications and consumer sectors, the second and third largest segments respectively, are each expected to lose a percentage point of market share over the forecast period. ETP predicts that the industrial segment will also give up a share point. Medical business will represent 5% of the contract manufacturing market both in 2008 and in 2013. In the ETP forecast, the automotive, defense/other and commercial aviation will also hold steady over the forecast period (Table 2).

ETP notes that the shift of production from high-cost regions into low-cost regions is starting to wane, as labor cost advantages are declining when weighed against the total cost of production, including transportation and logistics. Although migration will still take place, it will occur at a more moderate pace. The firm's report shows Asia gaining four percentage points of market share over the forecast period and ending up with 66% of the contract manufacturing market in

came in at 2.8%, compared with 2.3% for Q1. GAAP EPS for Q2 amounted to \$0.18 versus \$0.33 for the year-earlier period. Non-GAAP EPS for the quarter was \$0.19.

Revenue increased sequentially in all of Benchmark's sectors except computing, where sales dropped by 18%. Product life cycles, generally lower demand for enterprise IT, and the unknown impact of pending M&A transactions all contributed to the impact on computing sales. Through a merger agreement, **Oracle** intends to acquire **Sun**, which was just below a 10% customer for Q2. Computing represented 38% of Benchmark's sales in

**Table 3: Contract Manufacturing Market Forecast by Region (% of total market)**

Year	N. America	Europe	Asia	Rest of World
2008	19	14	62	5
2013	17	12	66	5

Source: Electronic Trend Publications

2013. Asia will gain at the expense of both North America and Europe, which are each projected to lose two share points over the period. North America's share will decrease to 17% in 2013, while Europe's portion will slip to 12% at the end of the forecast period. The rest of world's share will start and finish the five-year period at 5% (Table 3).

ETP's report rates the performance of EMS providers and ODMs based on a weighting of certain financial measures. In 2008, Taiwan-based **Delta** earned the highest performance rating, followed in order by two more Taiwanese companies, **Wistron** and **HTC**. EMS providers **Kitron** and **LaBarge** came in fourth and fifth respectively. **Foxconn**, the winner in 2007, dropped to sixth place.

The new report is entitled *The Worldwide Electronics Manufacturing Services Market, Sixth Edition*. It covers both EMS providers and ODMs under its definition of the EMS market. For more information, email [saberry@electronicstrendpubs.com](mailto:saberry@electronicstrendpubs.com).

## Market Data

### Some Q2 Results in Brief

**Benchmark Electronics.** For the second quarter, Benchmark rang up sales of \$481.8 million, off 3.0% quarter to quarter and 29.4% year over year. Non-GAAP gross margin for Q2 was 7.2%, up 80 basis points from the prior quarter. At the Q2 sales level, this margin exceeded Benchmark's expectations due to a better product mix, the company's operating efficiency and its control of costs. Benchmark believes that this gross margin is sustainable at the current revenue level. Non-GAAP operating margin for Q2

Q2, down from 48% in the year-earlier quarter.

Benchmark booked 13 new programs with estimated annual revenue of \$92 million to \$116 million. The company has seen the pipeline of opportunities increase in recent weeks, but remains guarded about the overall economy.

Benchmark expects Q3 revenue to be in a range of \$470 million to \$520 million, which at the midpoint would amount to a 2.7% increase from Q2. The company estimates that non-GAAP EPS will be in a range of \$0.17 to \$0.22 for Q3.

**Celestica.** Q2 revenue totaled

\$1.40 billion, down 4.6% sequentially and 25.3% year over year. Despite the year-over-year sales decline, Celestica's Q2 gross margin of 7.3% increased by 60 basis points from a year earlier. Compared with the prior quarter, gross margin was off by 30 basis points. Non-GAAP operating margin for Q2 stood at 2.7% versus 2.9% in the previous quarter and 3.0% in the year-ago period. Non-GAAP net earnings for Q2 amounted to \$0.11 per share, compared with \$0.13 for the first quarter and \$0.17 for the same period last year. GAAP net earnings came to \$0.02 per share, compared with \$0.17 a year earlier. Celestica achieved an ROIC of 15.3% in Q2.

On a sequential basis, the company's consumer segment showed the largest decline, primarily due to product transitions, while the storage segment showed strong quarter-to-quarter growth resulting from a new program ramp.

Celestica has decided to increase capacity utilization throughout its global network by implementing a new restructuring program with \$75 million to \$100 million in charges. Currently, the provider's average utilization is approximately 50%. This program will focus on some sites that are smaller and less strategic than the company's eight megasites. The company said it would like to see the rest of the industry aggressively reduce their idle capacity as well.

For Q3, Celestica anticipates that revenue will be in a range of \$1.425 billion to \$1.575 billion, and adjusted EPS will fall in a range from \$0.11 to \$0.17. At guidance midpoint, sequential growth would be 7%, and the implied operating margin (non-GAAP) would be 3%, mix permitting.

**Elcoteq.** Q2 revenue of 436.0 million euros was down 51.8% from 904.8 million euros reported for the same period a year ago. A large part of the year-earlier business was related to **Nokia**, and now that piece is very

small following Nokia's re-allocation of its manufacturing (April, p. 5). Also contributing to the revenue drop were a market demand issue and questions about Elcoteq's credibility in the long term. The company reported a Q2 operating loss of 11.5 million euros, an improvement from the prior quarter's loss of 38.3 million euros but still below the year-earlier income of 0.6 million euros. For Q2, Elcoteq's net loss amounted to 21.8 million euros.

Cash flow after investing activities turned positive in the quarter and totaled 72.2 million euros. The company reduced its net debt by 25% from the prior quarter.

The provider believes that Q3 revenue will be slightly lower than the Q2 result, mainly due to the sale of a majority of operations in Tallin, Estonia, to **Ericsson** (June, p. 1-2). Also, Elcoteq expects operating income to improve from Q2 and cash flow to remain positive.

Elcoteq and **Shenzhen Kaifa Technology**, a separately listed member of Chinese government-owned **China Electronics Corporation Group**, have signed a letter of intent calling for Kaifa to invest 50 million euros in Elcoteq through the purchase of new shares in the company. CEC has been Elcoteq's joint venture partner in China since 2002. Kaifa's investment is contingent on Elcoteq's creditors agreeing to a debt restructuring, which will include a partial debt-to-equity swap.

Elcoteq recently disclosed that it had been in discussions with a limited number of equity investors under a project to strengthen its balance sheet (June, p. 7). During this month's earnings conference call, the company said it needs capital investment to strengthen its financial position for future growth. "Our balance sheet is too weak for that at the moment," said president and CEO Jouni Hartikainen. Also, with access to the capabilities of CEC companies Elcoteq can more easily

attain vertical integration, a customer requirement that had been made difficult by the company's weak balance sheet. Finally, mobile phone development companies within the CEC Group combined with Elcoteq's global manufacturing create an ODM offering.

Kaifa aims to be the biggest single shareholder of Elcoteq with a minimum ownership of 30%. The Chinese company mainly develops, manufactures and sells computer and electronic communication products, but is also engaged in EMS, a business that Kaifa is expanding. According to Elcoteq, Kaifa has customers interested in production outside of China.

**Flextronics.** For its fiscal Q1 ended July 3, the provider generated sales of \$5.78 billion, up 3.6% quarter to quarter, but down 30.7% year over year. Non-GAAP gross margin for the quarter increased sequentially by 30 basis points to 4.5%, while non-GAAP operating margin rose by 70 basis points to 1.6%. The latter improvement was driven primarily by cost savings from restructuring and by actions to reduce discretionary spending. Still, the fiscal Q1 operating margin was 180 basis points below the corresponding margin of the year-earlier quarter. Non-GAAP EPS for fiscal Q1 was \$0.08, compared with \$0.03 for the prior quarter. Including \$65 million in restructuring charges and a \$107-million impairment charge for certain non-core investments and notes receivable, Flextronics recorded a GAAP net loss of \$154.0 million for fiscal Q1.

The company reported sequential growth in its computing, mobile and consumer digital segments, led by consumer digital with a 16% increase. Infrastructure sales remained flat, while revenue in the industrial/medical/automotive/other category decreased 7% from the prior quarter. Flextronics is still facing erosion in two big accounts, **Nortel** and **Sony Ericsson**. The provider has observed signs of stabilization in most end markets dur-

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ing the last three months.

Flextronics calculated an ROIC of 14.2% for fiscal Q1, up from 9.7% in the prior quarter. Inventory fell sequentially by \$325 million, as the company generated free cash flow of \$68 million in fiscal Q1. Since June 2008, the company has reduced its debt from \$3.7 billion to a projected \$2.6 billion at the end of July.

For fiscal Q2, the company expects revenue to be in a range of \$5.2 billion to \$6.0 billion, and non-GAAP EPS to be in a range of \$0.07 to \$0.11.

**Sanmina-SCI.** For the company's fiscal Q3 ended June 27, sales totaled \$1.21 billion, slightly up from \$1.20 billion in the prior quarter and down 36.5% from \$1.90 billion in the year-earlier period. Sanmina-SCI achieved a non-GAAP gross margin of 6.4% for the quarter, a sequential improvement

of about 50 basis points, reflecting the company's cost reduction efforts. Non-GAAP operating margin for the quarter was 1.4%, up 40 basis points from the prior quarter, but 180 basis points below the year-earlier margin. For fiscal Q3, Sanmina-SCI recorded a non-GAAP loss of \$0.02 per share versus a loss of \$0.06 per share in the previous quarter and earnings of \$0.05 per share in the same period a year ago. The company generated free cash flow of \$57 million in its June quarter and bought back \$10.1 million worth of its stock.

Compared with the previous quarter, sales in the industrial/automotive/defense & aerospace segment increased 11.5%, and enterprise computing revenue rose 4%. The communications and multimedia segments yielded essentially flat sales quarter to

quarter, while medical was down 4.1%.

Although Sanmina-SCI expects restructuring-related expenses of between \$8 and \$10 million in fiscal Q4, the company reported that restructuring is physically completed, and no new restructuring is currently anticipated.

The company said short-term visibility has improved, and it continues to see signs of stabilization across its customer base. For fiscal Q4, Sanmina-SCI is forecasting revenue of \$1.2 billion to \$1.3 billion and a non-GAAP loss per share in a range of (\$0.03) to (\$0.01). Estimated breakeven is around \$1.3 billion in quarterly revenue.

This month, Sanmina-SCI's board authorized a reverse stock split of its common stock at a ratio of one for six, effective Aug. 14.

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## News

### *Flextronics Expands in ODMs' Backyard*

**Flextronics** (Singapore) has launched a notebook R&D facility in Banciao, Taiwan. By setting up a notebook R&D center in Taiwan, Flextronics will be competing with the Taiwanese ODMs for design talent on their home turf. Flextronics can also take advantage of Taiwan's well-established supply chain for notebooks.

The company's new Computing Segment Notebook Center provides ODM/JDM products and services for notebook OEMs. It expands Flextronics' presence in Taiwan, where the company already has operations in Chungli and Wugu. The latter site, called the Computing Segment Design Center, focuses on ODM/JDM products and services for OEMs selling servers, storage, desktops and other computing-related products. Taiwan serves as the geographic hub of R&D capabilities for Flextronics' Computing Segment.

Flextronics anticipates growing its "notebook engineering capacity to 1,500 engineers over the next couple of years," said Mike McNamara, the company's CEO, during its earnings conference call this month.

The provider expects to hit a notebook revenue run rate of about \$1.5 billion to \$2 billion by the end of its current fiscal year.

*Certifications...* **Sanmina-SCI's** enclosure facility in Shenzhen, China, has attained certification to AS9100, the quality system standard for the aerospace industry.... **Hansatech EMS**, an EMS company in Poole, UK, has also earned AS9100 accreditation.... Japan's **SIIX Corp.**, a Top 50 EMS provider, announced that its European production facility in Slovakia achieved certification to ISO/TS 16949:2002, the international quality standard for the automotive industry. Operating under the name SIIX EMS Slovakia, the facility is located in Nitra and provides European customers with PCBA, kitting and electronic components as well as customized logistics

solutions.... **Suntron** has received NADCAP (National Aerospace and Defense Contractors Accreditation Program) certification in electronic manufacturing processes for its Southwest Operations in Phoenix, AZ, where the company is also based.

... **Colonial Electronic Manufacturers** (Nashua, NH), a New England EMS company, has passed an audit resulting in the upgrade of its certification from ISO 9001:2000 to the new ISO 9001:2008 standard for quality management systems.

*Year end results...* **SigmaTron International** (Elk Grove Village, IL) reported net income of \$1.95 million on sales of \$133.7 million for the fiscal year ended April 30.

*Correction...* The lead article of the June issue on page 3 referred to the wrong company as flouting the principle that OEMs will never restart their own operations after outsourcing that capability. As identified elsewhere in the article, the company is NCR, not NEC. Note that the electronic version of the June issue was corrected.

## Ecology and EMS

Projecting what the EMS industry will look like down the road can always provide grist for someone's word processing mill. Over the years, crystal ball gazers have expressed a recurring theme: the industry will be dominated by a few megaplayers and otherwise will be populated by small niche providers. EMS companies in the middle will disappear according to this thinking, which is influenced by the history of other industries.

But EMS is not like other industries. The massive consolidation that took place in industries such as automobiles and accounting has not occurred in EMS. *MMI* believes there is a basic reason why the EMS industry has not coalesced as other industries have. The EMS industry reflects the needs of its customers, and their needs are diverse. In evolving to meet those needs, the EMS industry in essence has become a rather complex ecosystem. Because this ecosystem has developed in response to the OEM environment, it is a system that cannot be destroyed without earth-shaking changes in that environment. Absent such seismic events, the EMS ecosystem will continue to evolve gradually.

As in any ecosystem, each type of EMS provider has its place. To make this point, here is a somewhat simplified breakdown of the industry. Let's begin

with small providers, which can readily handle engineering changes made by local customers during the NPI phase. These providers also appeal to OEMs that don't have the volumes to attract larger members of the ecosystem. Then there are the EMS companies with multiple or large facilities in a single region. Companies of this type can devote more resources to engineering and design and can aggregate some buying, while still operating in the low-volume, high-mix arena. Next are the mid-level providers that operate in multiple regions of the world. These companies can offer both high- and low-cost manufacturing to customers whose business would otherwise be insignificant in the portfolios of the largest global providers. Atop the industry, the largest providers attract major multinational OEMs where programs can be big and may involve multiple regions.

OEMs obviously select their providers based on other criteria as well. For example, some look for providers that specialize in a certain market segment such as medical, military, aerospace or automotive. Market specialization is another way that differentiation takes place in the EMS ecosystem.

One might assume that the global downturn would have rocked the ecosystem and precipitated a rash of strong providers gobbling up weak ones. As shown in the article on page 1, this as-

sumption has so far been debunked by the fact that not a single consolidation deal occurred in the first half of 2009. Indeed, the downturn seems to have worked against consolidation deals, which had averaged about 16 a year over the previous six years.

It would be foolhardy to think that consolidation deal making has somehow ended. This activity will probably will return to levels of recent years at some point. But barring multiple mergers or acquisitions among the largest players, the EMS ecosystem will retain its basic form for years to come.

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