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Alternative Energy: An EMS Opportunity

There can be little doubt of the growth prospects for alternative energy technologies. Two of the growth drivers, the economics of high oil prices and the mitigation of global warming, can be found in nearly any newspaper. Peter Lindgren, **Celestica's** senior VP and GM for growth and emerging markets, adds two more: the spread of government incentives around the world and energy security concerns. Taken together, these growth promoters create enormous potential for forms of alternative energy. Will the EMS industry act as a bystander as these technologies advance or does it have a role to play? *MMI* contacted three of the largest EMS providers and found that all three are making a place for themselves in the alternative energy arena. Their efforts, which are beginning to produce results, show the emergence of an EMS opportunity in alternative energy.

"For us, it's more than EMS. It's actually some of our components business as well, enclosures and module fabrication and perhaps boards. I'm not sure about that. Certainly, it's an opportunity for everything we do," said Joe Bronson, president and COO of **Sanmina-SCI**, during an interview with *MMI*.

As alternative energy technologies move into the mainstream, they will need to ramp volume in multiple geographies and reduce their costs, two requirements that are central to the value proposition of EMS companies. "It's around pulling cost out. It's around process efficiencies, especially in these technologies that are in some cases very unstable and very immature," Lindgren told *MMI*. "It creates a real opportunity for us to apply our model and cut and paste it in multiple geographies to be able to get the scale and volume that we need."

Up to this point, the industrial segment within **Flextronics** has not seen a lot of alternative energy companies in need of its services. "They've been more in the technology development life cycle," said E.C. Sykes, president of Flextronics Industrial. But that is beginning to change. Sykes has noticed much more energy going into efforts to start deploying technology into the field. "As companies get to that part of their life cycle, then there will be more opportunities for those companies that are positioned to support them. And we think we got ahead of the curve on this one," he said.

Alternative energy may be in the "first inning" as a market for the EMS business, as Joe Bronson puts it, but opportunities in this market are beginning to turn into program wins. This month, Swiss-based **Oerlikon Solar**, which makes equipment for mass production of thin-film silicon solar modules, announced an agreement whereby Flextronics will provide capacity and supply chain solutions needed to accelerate the expansion of Oerlikon's global production capacity.

Manufacturing for providers of capital equipment to the solar industry is one of two solar segments being pursued by EMS companies. This segment is a natural extension for EMS providers like Flextronics who already build product for the semiconductor capital equipment market. "All the capabilities that we have to support the capital equipment market come into play," said Sykes.

Another provider has also made

Some articles in this issue

inroads here. Bronson reported that Sanmina-SCI is already manufacturing equipment for the solar industry.

The other piece of the EMS opportunity in solar lies in the production of photovoltaic (PV) modules, also called solar panels. Celestica is ramping business in solar panels for its first engagement in this area. The business is being ramped initially out of Celestica's facility in Spain, a country with a rapidly growing solar market. "We're looking at replicating and driving growth of that across other regions through our operating sites throughout the world. We have targeted specific facilities that we have invested in to have this type of capability," said Lindgren.

There is precedent for this kind of EMS activity in Germany, which promoted solar energy early on. A German EMS provider, **ml&s**, serves as manufacturing partner for Germany's **SOLON**, a manufacturer of PV modules. To further their relationship, SOLON took a 41% interest in ml&s last year.

Flextronics is involved in PV module assembly as well. "It's an assembly process that fits well within our general manufacturing capabilities. It has some technology pieces in it as you go through that manufacturing process, but they're pretty easy to pick up and transfer," said Sykes. The company has done some prototype work at the module level but has not announced any engagements.

Foxconn Technology Group, anchored by **Hon Hai Precision Industry**, the world's largest EMS provider, is also eyeing the solar energy space. Foxconn recently invested in **Infinia**, developer of a system that converts concentrated solar energy into electricity (May, p. 7).

Market research firm *iSuppli* recently stated that the market for PV cells is expected to grow by 40% a year until 2010. That projection squares with numbers provided by Celestica's Lindgren (39% CAGR for PV installation) and Sanmina-SCI's Bronson (40% a year for solar overall). But PV module manufacturing is almost exclusively done in-house. This fact is borne out in a forecast that outsourcing of module assembly will only rise to the 3% level by 2012, according to *The Worldwide Solar Panel Assembly Market*, a new report published by **Electronic Trend Publications**.

Fuel cells are another alternative energy technology that is starting to create business for EMS providers. Celestica and Sanmina-SCI each have a fuel-cell customer that has gone public with its outsourcing relationship. Last year, *MMI* reported that an automated production line was set up in Celestica's Galway, Ireland, facility to manufacture fuel cell power packs for **Medis Technologies** (Nov. 2007, p. 8). **Neah Power Systems** has selected Sanmina-SCI to provide engineering and manufacturing support for commercializing Neah's fuel cell systems (June, p. 6).

In the alternative energy space, more money goes into wind installations than solar, yet only one of the three providers interviewed has any wind business. That provider, Sanmina-SCI, is pretty much doing what it calls component integration, which is akin to its semiconductor capital equipment type of business. The company has more than one wind customer.

Energy-efficient lighting is often grouped with alternative energy technologies under the more general heading of clean technologies. EMS providers are winning programs in this clean tech area as well. Earlier this year, **Ceravision**, developer of a high-efficiency lighting system powered by microwaves, selected Sanmina-SCI as its worldwide manufacturing partner (March, p. 8). Last month, **Carmanah Technologies** of Canada disclosed that it will outsource production of its solar technology products to Flextronics. Carmanah's products include solar-powered LED lighting and solar power systems, which make this win a program that straddles both lighting and solar energy. Celestica also has an LED lighting customer, for which Celestica provides manufacturing in highly automated environment.

But clean technologies present barriers to entry. These technologies can be capital intensive. They can also be problematic when there are competing technologies and winners must be selected.

What's more, the EMS business in clean tech is starting from such a small base that initial growth rates may not provide a true indication of what can be expected from this emerging market over time. Nevertheless, alternative energy and other clean technologies present an opportunity that some EMS providers cannot pass up.

Market Data

Some Q2 Results in Brief

Benchmark Electronics. Q2 revenue of $682 million fell below the company's guidance of $715 million to $750 million. This is the second quarter in a row that Benchmark has missed its revenue guidance (April, p. 5). The company said revenue was impacted by maturing programs at two to three customers declining at a more rapid pace than new programs ramped and by a soft macro environment. Sales from computing and test and measurement declined sequentially, while industrial controls, medical and telecom all showed gains from the prior quarter. Revenue for the quarter was down 9.8% year over year and flat on a sequential basis. Still, Benchmark raised its non-GAAP operating margin 30 basis points sequentially to 3.6%. Non-GAAP EPS for Q2 was $0.35 at the low end of guidance. After completing a $125-million share repurchase, the company announced a new $100-million buyback program.

Celestica. Adjusted EPS for Q2

amounted to $0.17 compared with $0.02 a year earlier. GAAP EPS also came in at $0.17 versus a loss of $0.08 per share in Q2 2007. Revenue of $1.88 billion was up 2.2% sequentially but down 3.1% year over year. Non-GAAP operating margin in Q2 improved to 3.0% from 2.7% in the prior quarter. Gross margin for the second quarter stood at 6.7%, up from 6.3% in Q1. Return on invested capital including intangibles amounted to 11.8% versus 10.5% in Q1 and 3.8% in the year-ago quarter. Celestica generated Q2 free cash flow of $54 million. The company's first-half sales of $3.71 billion were off 1.8% from the same period a year earlier.

Flextronics. For its fiscal Q1 ended June 27, sales totaled $8.35 billion, up 62% from the year-earlier period, which did not contain any sales from the **Solectron** acquisition. Adjusted net income increased 69% year over year to $227 million, while adjusted EPS grew 23% to $0.27. GAAP net income rose 22% from a year earlier to $130 million, as GAAP EPS decreased to $0.16 from $0.17 in the year-ago quarter. Adjusted operating margin held steady at 3.4% versus the prior quarter but improved by 40 basis points from the year-ago period. All of Flextronics' segments showed sequential gains in revenue. The company's board recently authorized a stock repurchase of up to ten percent of its outstanding ordinary shares. Guidance for fiscal Q3 implies that both sales and adjusted EPS will increase sequentially.

Plexus. Sales for its fiscal Q3 ended June 28 amounted to $456 million, exceeding the company's guidance of $430 million to $450 million. EPS of $0.41 was at the top end of the guidance range. The company posted an ROIC (as defined by Plexus) of 21%, gross margin of 10.7% and operating margin of 4.9%, consistent with Plexus' 20-10-5 model. Revenue increased 20% year over year but was up slightly from the prior quarter. Sequentially strong performance in the company's wireline/networking and medical sectors offset a modest decline in its industrial/commercial business and an expected $26-million drop in revenue from its large unnamed defense program. During the quarter, Plexus won 15 significant new manufacturing programs worth about $108 million in annual revenue as well as about $17 million in engineering business. At the midpoint of fiscal Q4 guidance, Plexus would enjoy sales growth above 19% for fiscal 2008.

Sanmina-SCI. For its fiscal Q3 ended June 28, the company's sales of $1.90 billion for continuing operations came in above guidance of $1.775 billion to $1.875 billion. Sales were up 4.7% quarter to quarter and 13.7% year over year. Sequential growth in communications and enterprising computing more than offset quarter-to-quarter declines in the company's other three segments. Non-GAAP gross margin was 7.4% compared with 6.9% in the prior quarter and 5.8% in the year-ago quarter. Non-GAAP operating margin equaled 3.2% versus 2.5% in the prior period and 0.6% a year earlier. Non-GAAP EPS improved to $0.05 from a year-earlier loss of $0.07. The provider generated free cash flow of $118.7 million. Sanmina-SCI's board of directors has authorized a reverse stock split, which must be approved by shareholders.

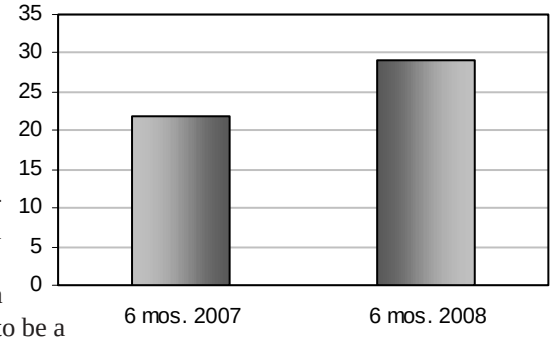
M&A

M&A Up in First Half

The difficulties of the U.S. banking sector did not put a lid on EMS industry deal making in first half of 2008. *MMI* counted 29 M&A transactions closed in the first half, up 32% from 22 deals done in the same period a year ago (Chart 1).

Does this increase reflect an increase in consolidation activity? Not according to *MMI's* data. The number of first-half consolidation deals – where one EMS provider subsumes another through acquisition – remained at the same level as reported for the year-earlier period. In both periods, 11 consolidation deals took place (Chart 2, p. 4). What's more, the 11 consolidation deals closed in the first half of this year were fairly close to an average of 9.6 first-half deals of this kind from 2004 to 2008.

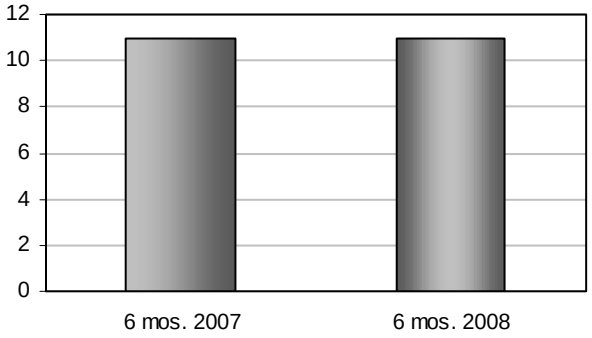
Chart 1: EMS Industry M&A Deals



Although consolidation activity varies somewhat from year to year, there is no discernible trend yet in the up direction (Chart 3, p. 4). Based on first-half data, industry consolidation on the acquisition side appears to be a relatively steady process, with some ups and downs, rather than a phenomenon that is progressively increasing.

MMI defines a consolidation deal as a transaction resulting in the loss of an independent EMS provider. For the most part, consolidation deals occur when one provider acquires another. But much less frequently, an OEM will sell off a manufacturing business used to supply both internal and external (EMS) customers. This constitutes consolidation as well. There were no deals of this type in the first half of 2008, but three went down in the year-earlier period. If you strip out the three OEM divestitures of EMS units in the 2007 period, then consolidation among

Chart 2: First-Half Consolidation Deals



independent EMS companies did increase to 11 transactions in the first half of 2008 from eight in last year's first half. Thus, consolidation deals among independents grew by 38%.

But this increase only accounts for a portion of the first-half growth in M&A. So what else could have driven up the number of first-half M&A transactions? For one thing, there was a marked increase in the number of transactions where a provider acquires a horizontal or vertical capability. Eleven of these service or supply chain extensions occurred in the first half of 2008 compared with six in the year-earlier period. That's an increase of 83% (Chart 4).

Capability deals appeal to EMS providers of all sizes, starting, of course, with the largest players. For them, one attraction is being able to pick up a capability often times for a relatively minor sum. **Flextronics**, the world's number-two provider by size, made three deals of this type in the first half. The company gained laptop ODM capability with its acquisition of **Arima** operations, broadened its medical capabilities with the addition of **Avail Medical Products,** and deepened its vertical capabilities in mobile phones through the purchase of **CEAG's FRIWO Mobile Power** unit. Indeed, Flextronics was the most active deal maker in the first half.

Smaller providers also engaged in this activity during the first half. For example, two providers in the northeast U.S., **IEC Electronics** and **Sunburst EMS**, both extended their capabilities by acquiring local companies that assemble wire harnesses.

There were also a few cases in which a contract manufacturer divested an operation to a competitor. *MMI* found two such deals in the first half compared with one in the year-earlier period. Add these two CM divestitures to 11 consolidation deals in this year's first half, and you end up with 13 instances where one contract manufacturer acquired operations from a competitor, versus nine such transactions in 2007 (Chart 4). The 44% increase in these deals primarily reflected consolidation among independent providers, as explained earlier.

Another contributor to M&A growth stems from companies outside the EMS industry acquiring an EMS operation. When an outside buyer takes over an EMS property, a new EMS player is created. *MMI* counted four instances of new-player deals, twice the number from the year before (Chart 4).

Given the competitiveness and thin margins of the industry, you would think that companies outside the industry would be dissuaded from acquiring

Chart 3: First-Half Consolidation Deals Over Time

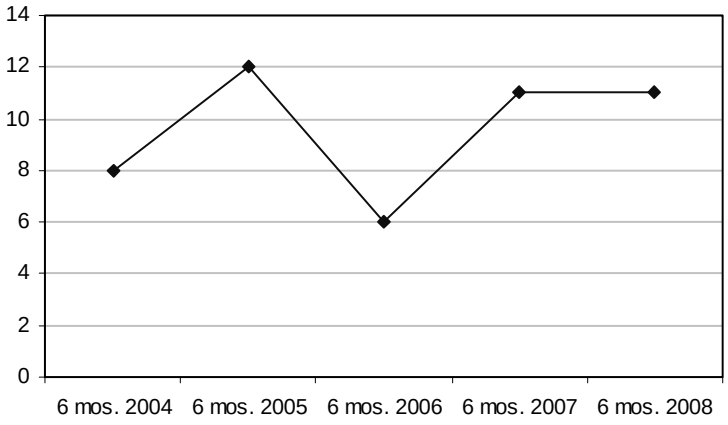


Chart 4: Deal Breakdown First Half 2008 Versus First Half 2007

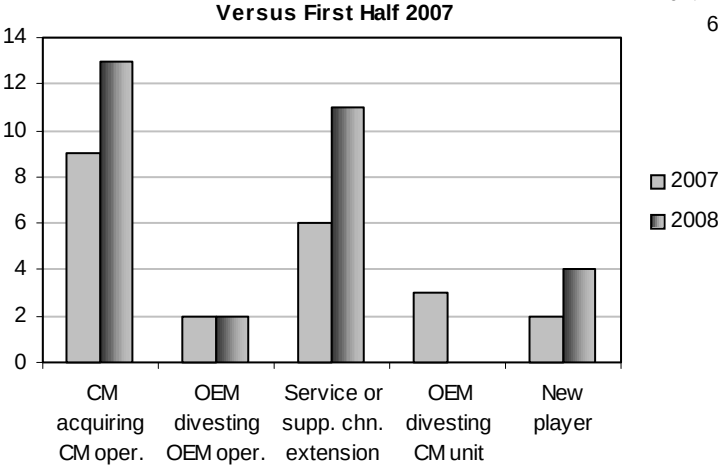
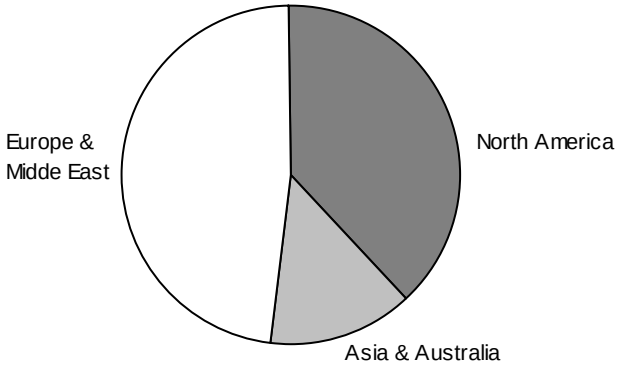


Chart 5: Acquisitions (Home Base) by Region



operations within it. But in two cases, an outsider obtained an EMS operation as part of a larger acquisition. For example, **Parker Hannifin**, a large player in motion and control technologies, took over an EMS business unit as part of its acquisition of **Vansco Electronics**. In the other two transactions, an EMS provider divested an operation to a buyer, who then turned the operation into an independent EMS business. As an illustration, **Elcoteq** sold its German subsidiary to a holding company, **BAVARIA Industriekapital**, which now operates the business under the name **Xenterio**.

At the turn of the century when industry M&A deals were at peak levels, OEM divestitures of outsourced operations were an important part of the mix. Today, that is no longer the case. Just two transactions of this type were recorded in the first half, which was on par with what occurred in the year-earlier period (Chart 4, p. 4). One of these, **SMS Electronics'** UK acquisition of a **Siemens** after-sales operation, was classified as both an OEM divestiture and a service extension.

As has been written here in the past, EMS providers are generally averse to taking on OEM plants in high-cost areas, where the bulk of outsourcing originates. Still, when existing OEM operations are outsourced, an EMS provider often will transfer some OEM inventory along with equipment if needed to the provider's operations. OEM personnel may or may not be part of these "divestiture-lite" deals, which are not always reported. So the lack of OEM divestitures in *MMI's* first-half statistics is not a good indicator of how many OEM operations were outsourced.

More acquired operations were based in Europe or the Middle East than in any other region (Chart 5, p. 4). Of the 29 transactions tallied for the first half, 14, or nearly half, involved buying EMS assets in Europe or the Middle East. All but one of these acquisition targets were in Europe. Although Europe's EMS production is the smallest of the three major EMS markets, this result is not out of line. *MMI* estimates that among EMS providers more restructuring activity is now taking place in Europe than in the other two regions. Restructuring breeds M&A as providers and OEMs attempt to sell off unwanted operations. Six of the European deals resulted from divestitures by OEMs or EMS providers. In addition, the EMS industry in Europe is not as mature as that in North America. Hence, Europe has a proportionately greater propensity for deal making at this stage of its evolution.

North America was home to 11 acquired operations, or 38% of the total. The remaining four acquisitions, or 14%, were based in Asia.

Editor's note: First-half 2008 statistics published here should be treated as preliminary. Chances are that *MMI* will come across additional first-half transactions after this article is published. Four such deals were added to first-half data presented in the July 2007 edition.

Also be advised that *MMI's* method is to count only M&A transactions occurring within the EMS industry. This analysis excludes divestitures by EMS providers where the operations sold are not retained within the industry. Private equity deals are omitted as well unless they result in a new player.

News

Flextronics and LEGO To End Pact

Construction toy maker **LEGO Group** (Billund, Denmark) will phase out its outsourcing agreement with **Flextronics** (Singapore) during 2009. LEGO, which has decided to mainly focus on internal production, will take back manufacturing from Flextronics.

According to a statement from LEGO, the two companies have jointly decided that LEGO will take over its production currently handled by Flextronics in Juárez, Mexico, and Nyíregyháza, Hungary. LEGO is negotiating with Flextronics to acquire the Nyíregyháza plant and its employees. LEGO wants to conclude these discussions by the end of the month. The Juárez production will move to a new site in Monterrey, Mexico, during the first quarter of 2009, and the site is expected to be operational in the second quarter.

"Jointly, we have now come to the conclusion that it is more optimal for the LEGO Group to manage the global manufacturing setup ourselves," stated Iqbal Padda, LEGO executive VP in charge of the company's global supply chain.

In 2006, LEGO agreed to outsource the greater part of its production to Flextronics. But in August 2007, LEGO announced that it would delay further transfer of molding activities to Flextronics due to the need for increased capacity. Then in February 2008, LEGO said it would take back production in Kladno, the Czech Republic, where Flextronics had acquired operations from LEGO (Feb., p. 8).

*Deals done…***Sanmina-SCI** (San Jose, CA) has completed the transition of its personal computing BTO/CTO operations and associated logistics services in Australia, Hungary, Mexico and the U.S. to **Foxteq Holdings**, a member of the **Foxconn Technology Group**. This sale, which was announced earlier, completes Sanmina-SCI's divestiture of its PC business (Feb., p. 6; June, p. 4)….**Neways Electronics International** (Son, The Netherlands), a Top 50 EMS provider, has agreed to acquire **i-Products** (Leende, The Netherlands), which specializes in the development and engineering of high-technology electronic

components and systems. With 15 developers and engineers, i-Products matches Neways' desire to strengthen its development capabilities, further enhancing the company's one-stop provider offering….**Kitron** (Billingstad, Norway), another Top 50 provider, has concluded a deal to acquire a factory and the underlying land lease in Kaunas, Lithuania, for 3.4 million euros. Kitron currently conducts its operations at this property. The investment is in line with the company's strategy to increase its production capacity in Lithuania. Kitron plans to double the floor space from about 5,000 m^2 today and substantially increase production capacity within the next few years.

*Change of ownership…***Houstech** (Houston, TX), which specializes in PCB assembly services, has been sold to Mike Dennis, a Houston-based private investor with experience in the circuit board field. The company's owner had decided to retire.

*Divesting and acquiring…***Jurong Technologies Industrial Corp.** (Singapore) has entered into an agreement to sell its plastics business consisting of **SEB**, **Amould Technologies** and related companies to **MAP Technology Holdings**, a Singapore-listed provider of EMS and components for disk drives. The selling price is S$26.3 million ($19.3 million) in new MAP shares. JurTech will hold about 22.7% of MAP's stock including a previous interest in MAP and gain exposure to the hard disk drive sector. In addition, the divestment will allow JurTech, a Top 50 EMS provider, to focus on its fast growing ODM business, according to a clarification issued by the company. JurTech has only owned SEB and Amould since last year. These divestments have not kept JurTech from making another acquisition. The company recently signed an agreement to purchase **Priver Electric** from Taiwan-based **Priver Corp.**, a metal parts supplier that manufactures in China. JurTech will pay S$4.7 million ($3.3 million) in cash.

*Joint venture in Bulgaria…*A Dutch-Bulgarian joint venture called **Rommtech-3S** was recently created to offer contract manufacturing in Vratza, Bulgaria. Housed in a 1,900-m^2 facility, production activity includes electronic and electromechanical products, plastic details, metal boxes and cable harnesses. Venture partners are **Rommens Instrumenten en Apparatenbouw,** an EMS provider in Halsteren, The Netherlands, and **Security Smart Systems**, a Bulgarian company.

*New business…***Shiron Satellite Communications** has engaged Sanmina-SCI to produce broadband satellite communication devices called VSATs (very small aperture terminals) in Hortolândia, Brazil, according to *SatNews.com*, a satellite news website….**Benchmark Electronics** (Angleton, TX) has landed a contract from **iRobot**, reflecting a new relationship between the two companies. The customer specializes in robots that help people complete complex and dangerous tasks such as those faced by the military in Iraq and Afghanistan. …**LaBarge** (St. Louis, MO) has secured a $2.7-million contract from **BAE Systems** to continue to produce the Ethernet Switch Unit for its Bradley A3 combat vehicles. Also, LaBarge has received a $1.7-million award from **Sikorsky Aircraft** to keep providing PCB assemblies for various models of Black Hawk helicopters. …**Proton Data Security** (Miami, FL) has chosen **API Alliance** and **Northern Apex**, both in Fort Wayne, IN, for the manufacturing of Proton's data destruction products. API is a contract manufacturer, while Northern Apex focuses on RFID design and integration services. Both companies formerly operated as one entity….**Prism Electronics** (St. Ives, UK) has received an initial order of 400 PCBs from **ERB South Africa**, which is manufacturing rail signaling equipment for the Gautrain Rapid Rail Link project. This project will support the 2010 FIFA World Cup (soccer) in South Africa.

FIH Expanding in Northern China

To avoid the increased labor costs of southern China, **Foxconn International Holdings**, the handset subsidiary of **Hon Hai Precision Industry** (Tucheng City, Taiwan), is adding capacity in two provinces of northern China. Two new plants, one at Langfang in Hebei province and the other at Taiyuan in Shanxi province, are slated to begin production in this year's third quarter, according to an Asian news source.

In FIH's outlook released earlier this year, the company stated that it would continue to expand its manufacturing bases in Langfang and Taiyuan as well as India. No mention was made of southern China, where the company's Shenzhen facility, its largest, is located. It would appear that if the FIH did have plans to build a factory at Huizhou in southern China's Guangdong province, as published reports indicated last fall, those plans have been shelved (Nov. 2007, p. 7).

*More new facilities…*Benchmark Electronics will move its Romania operation into a new 10,000-m^2 facility leased in an industrial park being developed in Brasov, according to an online report from *BURSA*, a Romanian news source. The report said the new space is due to be up and running at the end of January 2009. Benchmark's Romania unit currently operates in two buildings totaling 60,000 ft^2 (5,574 m^2) in a former tractor factory in Brasov….Also in Romania, a subsidiary of Top 50 EMS provider

Connect Systems Group (Kampenhout, Belgium) has opened a new 16,000-m^2 plant in Oradea. The plant was constructed together with and on the land of **Centrum Romania**, a division of the Belgian company **H. Essers group** and a logistics supplier of Connect Systems. With more than 750 employees, the Romania factory has become Connect Systems' largest production facility. Because of steady growth over the years, this is the third time in five years that the Romania operation has increased its floor space. Its previous facility in Bors offered up to 6,000 m^2….**Catalyst Manufacturing Services** has opened a contract manufacturing operation in Tijuana, Mexico. The provider will begin shipping production there in mid July from a newly renovated 60,000-ft^2 facility. This facility will operate as a full-service turnkey operation working with customers in several market segments including medical, aerospace and industrial….The India subsidiary of EMS provider **ProWorks** (Santa Clara, CA) was granted Special Economic Zone Unit status, and the company has entered into an agreement to lease a 42,000-ft^2 facility within an SEZ park in Sriperumbudur. Construction and fit-out schedules allow the India facility to be operational as early as Q1 2009.

Facility expansions...**Silicon Forest Electronics** (Vancouver, WA) has acquired an additional 20,000 ft^2 of manufacturing space. The provider has also reconfigured two manufacturing lines to gain speed and flexibility for quick-turn, low-volume production, while adding high-speed equipment to increase capabilities for customers with higher volume orders. The additions in capacity will move SFE from an overall machine capacity of about 3 million placements per month to over 7 million per month. SFE is planning to expand capacity further by 2 to 4 million monthly placements in late 2008….**AWS Electronics Group** (Worcester, UK) has added 1,500 m^2 to its Slovakia facility and is putting in a second SMT line along with other equipment, reported *Electronicstalk*, a UK-based website.

*Some results from EMS providers based in Europe and Asia…*The first six months of cumulative revenue for Hon Hai Precision Industry, the world's largest EMS provider, amounted to NT$615.40 billion, up 20.5% from the year-earlier period. This rate is well below the company's non-consolidated sales growth of 36.2% (in NT$) recorded for 2007. Note that Hon Hai submits non-consolidated revenue monthly to the Taiwan Stock Exchange….**Elcoteq** (Luxembourg) reported Q2 2008 sales of 904.8 million euros, down 6.6% from the same quarter a year ago. The company said the euro/dollar exchange rate was partly to blame for the sales decline. Although sales were 0.4% lower in Q2 than in Q1, operating income turned positive in Q2, as expected. Q2 sales from home communications and communications networks rose sequentially, while personal communications revenue declined from Q1. Elcoteq recorded a Q2 loss per share of 0.42 euro compared with a year-earlier loss per share of 0.64 euro. First-half 2008 sales amounted to 1,813.6 million euros, representing a 5.6% decrease year over year. The company's outlook calls for Q3 sales to be below the Q2 level and for full-year sales to be lower than in 2007. Still, Elcoteq expects that operating income will improve substantially in 2008 over 2007….The CMS (contract manufacturing services) business of **VTech Holdings** generated revenue of $248.3 million for the fiscal year ended March 31. Revenue increased 6.5% over the prior year and accounted for 16.0% of VTech's total sales. This growth was driven by new customers in professional audio equipment, which became the largest segment of the CMS business, and RF products. The CMS unit manufactures in China.

*People on the move…*Jouni Hartikainen, president and CEO of Elcoteq, will take over management of the company's personal communications business area in place of Anssi Korhonen, who is leaving Elcoteq for a position outside the company. This area represents more than 70% of Elcoteq's sales. Hartikainen will retain his chief executive duties but give up HR responsibility, which he assumed in October 2007. HR oversight is being passed to Sándor Hajnal, who has been appointed VP, human resources. …**Key Tronic** (Spokane Valley, WA) has promoted Doug Burkhardt to VP of worldwide operations and Larry Bostwick to VP of engineering and quality. Also, Efren Perez has retired from his position as VP of Southwest operations….At **Winland Electronics** (Mankato, MN), Thomas Goodmanson was elected chairman of the provider's board of directors. He replaces Thomas de Petra, who stepped down from the chairmanship when he became Winland's CEO and president….Silicon Forest Electronics has hired Jim Yeager as quality assurance manager and Jay Schmidt as sales and marketing manager. Prior to joining SFE, Yeager was director of quality and engineering at EMS provider **Suntron**, while Schmidt's most recent positions were VP, operations at **OECO** and plant manager for **Tyco-Precision Interconnect**.

Company news…**Jabil Circuit** (St. Petersburg, FL) is considering its options as to where to locate its headquarters and a new manufacturing facility, according to two Florida newspapers, which quoted Jabil spokesperson Beth Walters. The *St. Petersburg Times* reported that $34.4 million worth of state, city and county incentives have been put together to convince Jabil to remain in St. Petersburg.

New Life in Regional Production

Most companies, and people for that matter, avoid risk. Business decisions are often made in favor of the "safe" choice. In recent years, many OEM executives viewed China as a safe bet to lower costs and further job security. But that was then; today is different. Economic forces are undermining the idea of China as a nearly universal destination for outsourcing and breathing new life into regional manufacturing.

The costs of outsourcing to China are going up, as last month's cover story pointed out. First, China's heated economy has created inflation, which translates into a general increase in the cost of doing business there. Part and parcel of this inflation are wage increases, which have rippled throughout the supply chain. China's new labor law is adding to worker costs. A second cost driver is the declining value of the U.S. dollar against the Chinese yuan. According to data from the U.S. Federal Reserve, from May 2007 to May 2008 the dollar declined by 9.2% versus the yuan. That means costs, when converted from Chinese to U.S. currency, effectively rose by about 10%, everything else being equal. Thirdly, China's new corporate tax law is increasing taxes paid in China. Thus, wage and other inflation, dollar decline and taxes all work against cost reduction of products offshored to China.

Another aspect of landed cost is logistics. Ocean shipping, the standard method of transport from China, has become more expensive with the high cost of fuel. Fuel surcharges are the norm. And the longstanding drawback of sea transport is that it's not geared for rapid changes in demand. But heaven help the OEM that must resort to air shipments for satisfying an upside. With the skyrocketing cost of jet fuel, OEMs now pay an even greater penalty for expediting by air.

As reported in last month's cover story, a survey of North American EMS providers found that 80% of respondents are seeing new opportunities as a result of the rising costs of offshoring to China. To *MMI*, this indicates growing interest in regional manufacturing.

There is more evidence that regional manufacturing is on the upswing. During Flextronics' earnings conference call this month, CEO Mike McNamara reported, "This is going to be the first [fiscal] year in a long time where our Mexico operations and Latin American operations are going to grow faster than our operations in Asia."

Landed cost increases are not the only reason that an OEM might decide against China. The survey found other reasons as well. But these other reasons have not changed. What's new is that economics have begun to work against China.

Of course, regional manufacturing doesn't work for every product. High-volume consumer products made in Asia will probably never come back unless ocean transport becomes prohibitively expensive. The OEM universe is too variegated to be making blanket statements about which products should be produced regionally.

Nevertheless, regional manufacturing, which always been a part of the EMS industry, is back in vogue.

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