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EMS-ODM Turf Wars Spreading

Time was when EMS providers and ODMs maintained their distance. They followed different models, which were generally suited to different product segments. ODMs earned their living in the PC industry, and most EMS providers looked elsewhere to make a buck. Today, that separation is disappearing as competition between EMS providers and ODMs is springing up in a growing list of product areas. The long-predicted collision of the two outsourcing sectors is becoming a reality.

It's debatable as to when the turf wars began between the EMS and ODM sides. One of the first areas to be contested was mobile phones. EMS providers made an early claim by doing mobile-phone PCBA; ODMs followed. Now two more product areas – one mature and one emerging – are igniting further competition.

As reported here last month, **Flextronics** has signed a letter of intent to acquire the notebook and server related operations of Taiwan's **Arima Computer** (Sept., p. 5). This deal will give Flextronics an ODM capability in notebooks that the company can use to challenge Taiwanese ODMs on their own turf. Flextronics is no longer willing to cede the notebook space to Taiwanese companies, who now control around 90% of the notebook business.

In an earnings conference call this month, Flextronics CEO Mike Mc-

Namara gave several reasons for wanting to take on the notebook ODMs from Taiwan. "We already have a lot of vertical pieces that we can apply to the notebook business," said McNamara, who cited Flextronics' ability to supply power supplies, plastics and metals as well as provide laptop repair and global BTO/CTO configuration. "We probably repair more laptops than anyone in the world today with the **Solectron** acquisition," he notes.

Of course, the size and growth of the notebook market also appeal to Flextronics.

What's more, the dominance of the Taiwanese ODMs in notebooks could work to Flextronics' advantage. "I think the fact that 90% of the business is in Taiwan is probably concerning to the big multinationals, particularly the U.S. guys," said McNamara.

Unlike some ODMs who have shown a willingness to develop their own branded products, such activity is not in Flextronics' business strategy.

"So I would view that as probably going to be positive for the American OEMs," he said.

Another fast growing, sizable market, flat panel TVs, is also creating EMS-ODM competition. At least five of the biggest EMS providers have ventured into the flat panel segment, where a large number of ODMs have also staked a claim. These five providers (in alphabetical order) are: **Celestica**, **Elcoteq**, **Flextronics**, **Jabil Circuit** and **Hon Hai**.

By one estimate, these providers as a group have a long way to go in order to catch up with the ODMs that produce LCD TVs. According to market research firm **iSuppli**, in 2006 EMS providers built just 6.8% of outsourced LCD TVs.

But judging by the performance of one EMS provider, the ODMs' market share is at risk. This month, Jabil reported that it is the seventh largest producer of flat panel TVs in the world today, based on a list put out by another

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er market researcher, **DisplaySearch**. No EMS competitor nor ODM made this list (which did not include **TPV**, a well-known ODM in flat panel TVs).

Jabil has four major customers in the LCD TV space, of which three are relatively new Japanese clients. The provider believes that OEMs in that space are ready to outsource. "The OEMs want to focus their differentiation on the screens," said Jabil president and CEO Tim Main during the company's analyst meeting this month. In Jabil's view, these TV OEMs will want their providers to supply everything but the LCD module.

Taking a page from the ODM book, Jabil is investing in a base platform approach that will allow the company to supply customized derivatives to a number of different customers. But Jabil is also drawing upon its EMS heritage as a global producer, something that ODMs are not known for.

The logistics costs associated with large-screen TVs dictate that TV assembly facilities be located close to or in the regions where these TVs are consumed. Jabil already operates a large-scale TV operation in Kwidzyn, Poland, and plans to ramp up a facility in India and an operation in Brazil.

Flextronics, which has been on a flat-panel TV mission for about a year, is also putting together a global network for TV production. A project has been underway to add mechanical capacity around the world, enabling Flextronics to supply some of its vertical capabilities for TV production. The company is also investing in ODM design aspects and is looking to expand some of its repair activities for flat-panel TVs.

Providers such as Jabil and Flextronics are arming themselves with capabilities to engage ODMs in new turf wars.

to find new, talented youngsters for managerial and other positions too," says Mihály Tunkli, VP of business development at VIDEOTON. Somogy, one of Hungary's less industrialized counties, has a higher unemployment rate than the country's average of around 7%. The Hungarian provider is the largest industrial employer in this region.

Nevertheless, VIDEOTON, which operates plants at eight sites in Hungary, reports that this year the lack of qualified workers in the country is becoming more and more significant. Compared with recruiting these workers, the company has no such trouble hiring untrained workers with a basic education or graduates that lack the necessary skills.

"It is regretted that there are not enough skilled workers and technicians educated in Hungary," says Tunkli. He reports that Hungarian youth either stop their studies short of worker training or get diplomas without craftsmanship. In this regard, VIDEOTON has made PR efforts in recent years to promote skilled worker training as an educational alternative.

Another Central European country used by the EMS industry is Poland. Since Poland joined the EU, about 1.5 million workers or possibly more are estimated to have left the country. Yet official unemployment rates, which vary across the country, reach into the double digits in some places. Rates of 18 to 19% have been reported in depressed areas of the Northeast and Southeast regions, certain small towns in Central Poland and rust-belt cities such as Lodz, says Adam Sikora, a consultant to *MMI* who derives this information from the Polish press. In contrast, unemployment in cities such as Warsaw, Poznan, Krakow and Wroclaw is 4 to 5%. But "these statistics are unreliable, as it is estimated that at least half of the registered unemployed actually work 'in the black' while collecting benefits," says Sikora.

es from these providers reveal a lack of qualified workers in Hungary, more effort required to find qualified engineers in Poland, and job hopping by skilled workers in the Czech Republic and Poland. Still, EMS providers are generally long on ingenuity, and *MMI* learned of some creative approaches to heading off any potential hiring problems in Central Europe.

One approach centers on transportation. Hungary-based **VIDEOTON**, an *MMI* Top 50 EMS provider, owns a public transportation company in that country and uses it to recruit workers from a larger area if the local labor pool is insufficient. The transportation company allows workers to commute from greater distances. For workers coming from even farther away, VIDEOTON offers them accommodations in the company's own hostel.

At Kaposvár in the Hungarian county of Somogy, VIDEOTON has found no problem hiring the necessary number of employees to staff a 5,000-m² plant expansion. "What is more, to our greatest satisfaction, we succeeded

World Markets

Is There Enough Labor in Central Europe?

Two forces are working against the labor supply in Central Europe. EMS providers and other electronics manufacturers are expanding or putting in new plants there to take advantage of labor and other costs that are below those in Western Europe. But at the same time, there has been an exodus of workers, particularly those with skills, from Central Europe. They are seeking the higher wages in Western Europe that electronics manufacturers want to avoid. Entry of Central European countries into the EU has made this emigration possible. Has the labor supply become a problem?

Checking with several EMS providers that operate in Central Europe, *MMI* did not find any cases where the labor supply caused operational problems. However, this is not to say that EMS providers are having an easy time when it comes to hiring. Respons-

Reuters reported last month that the number of jobless workers in Poland has reached the lowest point since the late 1990s.

The exodus of workers from Poland has created labor shortages in the skilled trades. **Schlafhorst Electronics** (SE), a medium-sized EMS provider based in Germany, gained firsthand knowledge of these shortages during the recent construction of the company's extension building in Lubsko, Poland. Although SE used a Polish building contractor, the provider found more German workers than Polish on the construction site. "Certainly, the consequences of all that are increasing costs for construction projects in Poland, particularly due to increased labor costs," says Felix Meckmann, SE's head of marketing.

SE does not have any problems finding enough workers for its Polish site, Meckmann reports. However, for about 90% of the site's work force SE does not need skilled workers from the electronics sector, because the Polish operation mainly engages in labor-intensive activities such as manual assembly (through-hole) and device assembly. If there is a need for skilled workers, SE can draw upon its relationship with a local technical school. Indeed, the presence of this school was one of the reasons for choosing the Lubsko site.

Because of the demand for skilled workers, they can switch to the highest bidder for their services, a phenomenon that has occurred before in other low-cost geographies when the supply was tight. But the job hopping is not confined to Poland. "In general, particularly skilled workers from the Czech Republic and Poland show a much higher readiness to change to another company because of a better salary even after they worked for a company for a short time only," says Meckmann. He compares these countries to Germany, where staff members are much less likely to change employers.

Having started with 20 workers in 2005, SE's Polish operation has doubled its employee count to 40. With the launch of the new extension, SE expects to hire more staff by the end of the year.

"Due to the location advantages in Poland, we were able to acquire well-known customers from Germany and the adjoining countries," says Meckmann.

Sweden's **PartnerTech**, a Top 50 EMS provider, also operates in Poland. PartnerTech, which has two Polish sites, finds that the labor market is still competitive, but the cost level is rising. "Our view is that the salaries won't increase at the same speed as in other European countries due to the size and employment situation in Poland," PartnerTech's Lars-Gunnar Nilsson tells *MMI*.

Poland's labor market has not affected the company's operations there. "But hiring qualified engineers is not as easy any longer," says Nilsson.

Dell is hiring people for its new plant in Lodz, Poland, scheduled to open this fall and expected to employ around 1,000 people initially. Are investments by electronics manufacturers such as Dell causing greater competition for labor in Poland's electronics industry? This is likely, but PartnerTech works with local universities to build networks and attract suitable graduates, Nilsson responds. The company's largest site in Poland is located near the Technical University in Lodz, and PartnerTech has a close relationship with this school.

Another solution in the provider's tool bag is the PartnerTech Competence and Resource Center, whereby skilled resources in one plant can support the needs of other units. This program enables skilled people to work for short or long periods at different PartnerTech sites.

Poland was among the low-cost countries where major player **Jabil Circuit** invested in building expan-

sions during its August quarter. In Central Europe, the company also operates reduced-cost facilities in Hungary. Jabil informed *MMI* that the provider is not experiencing labor shortages in Poland or Hungary.

A third Central European country, the Czech Republic, has also attracted large EMS providers. Chief among them is **Hon Hai Precision Industry** (also known as Foxconn), the world's largest EMS provider. According to *Czech Business Weekly*, Hon Hai has started construction of a new factory in Kutná Hora, Czech Republic, and other reports have described the plant's mission as manufacturing LCDs and computer components (June, p. 7). Hon Hai is already a major employer in that country through its large facility in Pardubice. The new plant is expected to employ a work force of 5,000.

This head count, presumably the plant's full capacity, exceeds the number of unemployed reported in April for the Kutná Hora area by more than 2000. In an interview with Jim Chang, managing director of Hon Hai's Czech operation, *Reuters* reported recently that he "is now scouring the country" for workers to staff the plant.

Market Data

EMS Growth Projected Above ODM Rate

The ODM sector will no longer enjoy a growth advantage over the EMS industry. A new forecast from **Technology Forecasters** (Alameda, CA) leads to this conclusion. TFI is projecting a five-year CAGR (compound annual growth rate) for the EMS business that is slightly above the ODM rate.

For the period 2006 to 2011, the firm forecasts a CAGR of 11.9% for EMS providers versus 11.4% for ODMs. These numbers signify steady, but unspectacular growth for both sides. TFI projects that EMS revenue

EMS and ODM Revenue Forecast, 2006-2011 (billions US\$)							
	2006	2007	2008	2009	2010	2011	CAGR %
EMS	147.2	165.8	185.1	205.9	230.2	257.7	11.9
ODM	100.2	110.9	123.4	137.1	153.2	171.7	11.4

Source: Technology Forecasters

will grow from \$147.2 billion in 2006 to \$257.7 billion in 2011, while ODM revenue will increase from \$100.2 billion to \$171.7 billion over that period (see table).

Without the effect of the world's largest EMS provider, **Hon Hai Precision Industry**, the EMS industry CAGR would drop to 6 to 7%, notes TFI.

Why will the high-flying ODM business come back to earth? According to TFI, ODM attempts to diversify product offerings have met with mixed success. TFI predicts that over the forecast period, spin-offs of own brand operations, relative maturity in systems markets, mixed success in entering new product markets, and competition with Hon Hai will together retard growth in this sector.

This forecast represents a departure from first-half 2007 results presented by *MMI* as well as ODM performance in recent years. For the first six months of 2007, 11 of the largest ODMs grew their combined sales by 24.9% year over year (Sept., p. 1-5). By contrast, TFI predicts that ODM revenue in 2007 will total \$110.9 billion, an increase of 10.7%. For 2008, the firm estimates that the rate of ODM revenue growth will rise a bit to 11.2%, with revenue reaching \$123.4 billion. The highest year-to-year growth in the ODM forecast is 12.0%, which is projected to occur in 2011.

On the EMS side, the computer, communications, and medical segments will post the strongest growth rates over the forecast period, says TFI. The most important EMS driver continues to be growth in the computer systems market, according to the firm.

The TFI forecast shows that EMS sales will amount to \$165.8 billion this

year, up 12.6% from 2006. This sales figure represents an increase of about \$7 billion from the firm's previous forecast for 2007 (Oct. 2006, p. 5). Still, TFI's 12.6% estimate for 2007 falls below first-half growth of 16.3% calculated for 21 large EMS providers (Sept. p. 1-2). For 2008, TFI foresees EMS growth decreasing slightly to 11.7%, which will produce EMS revenue of \$185.1 billion. Projected year-to-year growth rates in subsequent years range from 11.2% to 11.9%.

TFI's look into the future also covers merger and acquisition activity. Despite the acquisition of Solectron, TFI does not anticipate an acceleration of M&A activity in the EMS segment because there is a lack of buyers. Furthermore, current volatility and deleveraging in capital markets make it less likely that a financial buyer such as private equity will step in.

Total outsourcing in 2006, a combination of EMS and ODM revenue, stood at \$247.4 billion, estimates TFI, and the firm expects this outsourcing business to hit \$429.4 billion by 2011. These beginning and end points translate into a CAGR of 11.7%. Another firm, **Electronic Trend Publications**, recently put forth a five-year CAGR that was three percentage points higher (Aug., p. 3).

According to TFI, the total available market (TAM) in 2006 was \$1.17 trillion, of which \$247.4 billion was outsourced. That equates to a penetration rate of 21%. By 2011, the TAM will rise to \$1.6 trillion, with outsourcing at \$429.4 billion. The resulting penetration rate will then be about 27%, given TFI's forecast. Assuming TFI is right, it is in some respects remarkable that by the end of the forecast period not even a third of the

TAM will be outsourced.

Asia will continue to increase its share of outsourced manufacturing, and TFI predicts that the Asian portion of contracted production will increase to 69% by 2011 from 55% in 2006. Asia's gain, of course, will come at the expense of the Americas and Europe. The Americas will see their share of outsourced production drop to 17% by 2011 from 25% in 2006, while the European slice of this pie will shrink to 14% at the end of the forecast period from 20% at the beginning.

ODM production will remain largely in Asia, although TFI projects that the Asian share of this production will decline to 90% in 2011 from 96% in 2006. At the end of the forecast period, the Americas and Europe will each end up with 5% of the ODM total.

TFI's forecast appears in its "Electronics Manufacturing Outsourcing Report: Five Year Forecast of EMS and ODM Industries by Market Sector and Geography." The report is available to members of TFI's Quarterly Forum.

News

Flextronics Closes Solectron Deal

Flextronics (Singapore) has completed its acquisition of **Solectron** (Milpitas, CA), which makes Flextronics much larger than all but one of its EMS competitors. The deal creates a more diversified company with about 200,000 employees and more than \$30 billion in annual revenue (June, p. 1-5).

To obtain Solectron's outstanding shares, Flextronics will pay about \$1.07 billion in cash and issue about 221.8 million of its ordinary shares. Based on its final share price of \$11.18 on Sept. 28, the trading day before closing, the deal was worth \$3.55 billion.

Among other things, the acquisition extends Flextronics' market segment

reach and increases its vertical integration opportunities through greater scale, according to the company. Solectron also adds strong capabilities in high-end computing and telecom.

As part of the acquisition agreement, Flextronics will appoint to its board two directors designated by Solectron and approved by Flextronics. In connection with these additions, expected to occur in Q4, former CEO Michael Marks and former chairman Richard Sharp intend to retire from the board. Ray Bingham, a current board member, will take over the duties of chairman from Marks.

Rationalizing the footprint

After the deal closed on Oct. 1, various media reports appeared identifying plants said to be targeted for closure. When asked by *MMI* to confirm these reports, Flextronics declined to comment. Flextronics has said the deal would require it to rationalize the footprint of the combined company but has yet to reveal the extent of its restructuring plans. Here is what has been reported so far.

According to local media, Flextronics intends to close its pre-existing factory in Youngsville, NC. Flextronics spokesperson Renee Brotherton reportedly confirmed this plan in an emailed statement cited by the *Charlotte Observer*. The acquisition of Solectron greatly enlarged Flextronics' footprint in North Carolina. Flextronics gained Solectron facilities at three locations in North Carolina containing 1.25 million ft² of total space (June, p. 4).

Another U.S. plant is also slated for closure, according to an industry source. Employees and customers of the former Solectron operation in Wilmington, MA, have told this source that Flextronics plans to shutter the operation. It was part of Solectron's **FinePitch Technology** unit, which specialized in prototyping and low-volume gateway work.

In Europe, Flextronics intends to

close the former Solectron facility in Canéjan, France, according to the *Associated Press* and a French trade union blog. These sources reported that the Canéjan operation employs 540 people. *AP* listed the operation's main customers as **Schneider, Thales Avionics and Thomson**, while the blog mentioned just the first two companies.

Furthermore, two additional locations – Montreal, Canada, and Istanbul, Turkey – were identified for closure in the *AP* report.

Reportedly, Canéjan would be the second facility in France that Flextronics has designated for closure. Earlier in September before the Solectron deal closed, *Agence France Presse* reported that Flextronics plans to cease operations in Chateaudun, France. According to the *AFP* story, 3G integration work that the plant performed for **Alcatel-Lucent** will be done in-house by the customer, and **Nortel** is moving production to Poland. Flextronics acquired the site from Nortel in 2005 as part of a larger outsourcing agreement. Plant personnel number about 500, including temporary workers, reported *AFP*.

In every case, it is not always clear which plant closures would have occurred anyway without the acquisition and which ones are caused by redundant capacity arising from the deal. In June, Flextronics CEO Mike McNamara told analysts that he thought the acquisition would accelerate footprint rationalization that Flextronics and Solectron could have done apart from the deal (June, p. 4).

Financial implications

In connection with the Solectron acquisition, Flextronics has entered into a \$1.759-billion term loan facility, of which \$1.109 billion was borrowed on the closing date.

The acquisition constitutes a change in control under an off-balance sheet arrangement. As a result, **Solect-**

tron Global Finance is exercising its right to redeem or repurchase, as the case may be, its 8% senior subordinated notes with a total face value of \$150 million. In addition, Flextronics intends to initiate a change-in-control purchase offer for all of Solectron's 0.5% convertible senior notes whose principal totals about \$450 million. Flextronics will refinance these notes through a term loan, which could come from the facility mentioned above.

ECI Telecom deal addressed

During an earnings conference call this month, McNamara responded to a question about a reported transfer of employees and business from Israel's **ECI Telecom** to Flextronics. Without providing any specifics, McNamara acknowledged that Flextronics is seeking to build a stronger relationship with **ECI Telecom**, a longtime customer, and help ECI with its supply chain. He pointed out that Flextronics already has a large presence in Israel.

Last month an Israeli newspaper reported that Flextronics was working on a deal to acquire three ECI operations in Israel (Sept., p. 5). Later, *Globes [online]*, the English version of an Israeli business daily, posted a story saying that ECI will transfer 700 production workers to Flextronics, some on a temporary basis.

Jabil & Nokia Siemens Reach Agreement

Jabil Circuit (St. Petersburg, FL) and **Nokia Siemens Networks** (Espoo, Finland) have signed an agreement by which Nokia Siemens will transfer its manufacturing operations in Cassina de Pecchi and Marcanise, Italy, to Jabil. *MMI* reported last month that Nokia Siemens intended to divest these operations to Jabil, and that the European Commission was reviewing the deal (Sept., p. 5). The EC has now cleared the divestiture, and closing is expected to occur on

Nov. 1.

At closing, Jabil will sign a four-year agreement to manufacture certain telecom products for Nokia Siemens, according to a Form 8-K filed by Jabil. The provider estimates that revenue from the first 12 months of this agreement will be about 350 million euros (\$500 million).

The Marcianise site's main manufacturing lines are GSM and EDGE radio access equipment, while the Cassina site produces microwave devices for wireline and wireless networks. Employees total 335 at Marcianise and 277 at Cassina.

Jabil will not be acquiring plant buildings in this deal, information that *MMI* was not privy to for its prior report. Under a short-term lease, Jabil will take control of the two manufacturing sites whose activities will continue. At some unspecified time, Jabil will move these operations into its Italian sites in Bergamo and Marcianise.

The provider expects to offer jobs to the 612 Nokia Siemens employees working at the two operations being acquired.

Although this is not a brick-and-mortar purchase, Jabil is acquiring some assets. The company is buying Nokia Siemens machinery, equipment and inventory with an estimated book value of about 40 million euros (\$57 million).

Hon Hai said to have touch panel plans... Through subsidiaries, **Hon Hai Precision Industry** (Tu-Cheng, Taiwan) has purchased 42.4% of the stock of **G-Tech Optoelectronics** (Tong-Lo, Taiwan), an optical glass processor. Hon Hai units paid a total of NT\$ 810 million (\$24.8 million) in a private placement. A Hon Hai spokesman told Taiwan source *DigiTimes* that G-Tech and Hon Hai will work together to develop touch panels.

New business... Flextronics has confirmed that it will produce a new line

of Zune media players for **Microsoft**. Also, Flextronics and **Insulet** (Bedford, MA) have expanded their manufacturing relationship. Flextronics, which has been providing subassembly of components for Insulet's disposable insulin infusion device, will manufacture the device itself (Aug., p. 7).

...**Celestica's** operation in Brazil is producing handsets for Taiwan-based **High Tech Computer**, which will use the operation to supply Latin America, according to online source *cellularnews*, which in turn cited a Brazilian newspaper, *Valor Economico*.

...**Elcoteq** (Espoo, Finland) has become the global manufacturing partner for **Telsima** (Sunnyvale, CA), a developer of WiMAX solutions. Elcoteq has started volume manufacturing of Telsima WiMAX CPEs (customer premises equipment) at its facility in Bangalore, India....**Alenia Aeronautica**, a **Finmeccanica** (Rome, Italy) company, has selected the FireComm intercommunications system, developed by the **Sanmina-SCI Defense and Aerospace Division** (Huntsville, AL), for integration into the C-27J Joint Cargo Aircraft....*DigiTimes* has identified **Wistron** (Hsinchu, Taiwan) as the manufacturer of a new version of an industrial PDA sold by **Motorola**.

...**BAE Systems** has awarded **LaBarge** (St. Louis, MO) a \$5.7-million contract to produce electronic assemblies for the Advanced Gun System on the U.S. Navy's new Zumwalt class of destroyers....**Probe Manufacturing** (Lake Forest, CA) is serving as EMS provider for electronics used in electric/hybrid drive systems of **Arens Controls** (Carpentersville, IL). These drive systems are intended for medium- and heavy-duty trucks.

New capacity... Hon Hai plans to add 1,400 workers over the next two years at its **Q-Edge** computer assembly operation in Plainfield, IL, *The Indianapolis Star* reported. The operation currently employs 300 people, the

newspaper noted....Also in the U.S., **I. Technical Services** has added a new SMT line at its new facility in Alpharetta, GA. The Georgia-based EMS provider has also procured additional equipment to support expanded manufacturing and repair operations.

...Another American company, **Light-speed Manufacturing**, has expanded its manufacturing and engineering area in Methuen, MA, by a third. Light-speed, an EMS provider and BGA technology specialist, reported that sales in 2006 increased by 100%.

...**NEPCON Manufacturing Technologies**, an EMS provider based in Yavne, Israel, recently completed construction of a new manufacturing facility in Alexandria, Romania. The company invested \$1 million in setting up the 1,500-m² plant, a joint venture with **Electortel**, a local company. NEPCON wants this new facility to spearhead its European operations.

Expansions in India... **Incap's** factory in Tumkur, India, has installed an SMT line to triple capacity of automatic PCB assembly. Earlier this year, Incap (Oulu, Finland) acquired the Tumkur operation from **TVS Electronics**, which will build a new factory building for Incap as part of that deal (March, p. 5; June, p. 6). Current production will be transferred to the new building, which will also enable the Indian operation to expand production in the future. Incap estimates that the operation will generate 6 million euros in revenue from June to December, down from an earlier estimate of 8 to 10 million euros. The company's target is to gain 40 million euros in the Asian markets by 2010. An executive with the Indian unit said India will be the fastest growing market for Incap....**Nestronics** (Singapore) expects to be running a third line soon at its Chennai, India, plant and plans to install 12 more there by 2010, *The Hindu Business Line* reported. The EMS company, formerly known as **Nera Electronics**, was acquired by

NE Holdings in 2006 and delisted from the Singapore Stock Exchange earlier this year, completing the process of taking the company private. It is interesting that both Nestronics and Incap have chosen India, not China, for low-cost manufacturing sites in Asia.

European alliance... **Jaltek Systems** (Luton, UK), an integrated design and manufacturing services provider, has formed an alliance with **Connect Systems**, the EMS arm of **IPTE** (Genk, Belgium). The pact will enable Jaltek to offer its customers access to Connect Systems' volume manufacturing facilities in Western and Eastern Europe. Jaltek will also take over Connect Systems' UK sales activities.

Suntron Going Private

Thayer-Blum Funding, Suntron's principal stockholder, intends to take the EMS company private. Thayer-Blum has formed a new subsidiary to merge with and into Suntron (Phoenix, AZ) as a means of acquiring the Suntron shares held by the public. The subsidiary owns 90.1% of Suntron's outstanding shares. Suntron will be the surviving entity of the merger, and its shares will no longer be publicly traded when the merger becomes effective. Subject to the completion of financing, the merger is expected to occur in December.

Suntron gave several reasons for going private. The company will no longer incur the costs associated with being a public company; it will save about \$3.5 million in SOX compliance and other costs in 2008. With no quarterly reporting required, management will have greater freedom to focus on long-term business goals. In addition, the market for Suntron's stock has been highly illiquid.

A Form 10-K amendment, filed April 30, listed Thayer-Blum as the

beneficial owner of 89.1% of Suntron's shares.

Going public... Shares of **Nippon Manufacturing Service** are expected to begin trading this month in Japan on the JASDAQ exchange. NMS is an outsourcing service provider, mainly engaged in consignment EMS work and technical staffing, according to a profile posted on *JCN Network*, a website for corporate news in Japan.

More financial news... So far this year, Hon Hai's non-consolidated revenue has grown at a rate that continues to impress. For the first nine months of 2007, the world's largest EMS provider reported that revenue (excluding subsidiaries such as **Foxconn International Holdings**) was NT\$822.75 billion (\$25.2 billion at current exchange rates), up 39.5% from the year-earlier period.... **Fitch Ratings** (New York, NY) has lowered three credit ratings for Jabil to a non-investment grade level, but states that the rating outlook is stable. The downgrade reflects increased leverage from Jabil's acquisition of **Taiwan Green Point**, new risk that Fitch believes results from Jabil's change to vertical integration for a portion of its consumer business, industry pricing pressure, and expectations for continued instability in the competitive environment.

Nam Tai reorganizing... Through a series of transactions, **Nam Tai Electronics** (Macao, PRC) intends to reorganize the group structure of its subsidiaries. Nam Tai believes that this reorganization will result in a more simplified group structure, better understanding of Nam Tai's operations by investors and analysts, centralized allocation of resources, lower overhead costs, and stronger management control. The new structure will centralize all of Nam Tai's manufacturing businesses under one subsidiary, **Nam Tai Electronic & Electrical Products**, which will more than double in

scale. The parent company's **JIC Technology** subsidiary, whose holdings currently engage in LCD product manufacturing, will see its mission change to software development and investments. Both subsidiaries are listed on the Hong Kong Stock Exchange.

People on the move... Marty Neese, who had been Solectron's executive VP of operations, and Warren Ligan, who was the company's chief accounting officer, have joined Flextronics as a result of its acquisition of Solectron. According to **Ingalls & Snyder** analyst Alex Blanton, Neese and Ligan are the only members of Solectron's "top management group" who will be working at Flextronics.... Celestica recently appointed Craig Muhlhauser, president and CEO, to its board of directors.... Mikael Jonson, CEO of **PartnerTech** (Malmö, Sweden) for nine years, has decided to leave the company to pursue new challenges, according to a statement from the company. Rune Glavare, a member of PartnerTech's board, will serve as acting CEO until a new CEO is hired. Also, Lennart Evrell has been elected to fill a vacated position on the board.... **Zentech Manufacturing**, a privately held EMS provider in Baltimore, MD, has appointed Matt Turpin president and COO. Turpin, who has 26 years in electronics manufacturing, joined Zentech in May 2006 as executive VP.... **IEC Electronics** (Newark, NY) has hired Stephanie Martin as VP, supply chain. Her industry resume includes working as VP of materials at **Reptron Electronics**, which was acquired by **Kimball Electronics Group**.... **Axiom Manufacturing Services** (Newbridge, UK) has brought in Steve Wilks, a 25-year EMS veteran, as commercial director.

Still more restructuring... Local media are reporting that Sanmina-SCI plans to close its Fountain, CO, plant.

Labor Quest

The EMS industry has a history of looking for places that would reduce labor costs. Today is no different. Providers are expanding into Eastern Europe because wages in Central Europe's Hungary, Poland and the Czech Republic are higher by comparison. Vietnam offers lower labor costs than in China, and the flood gates are beginning to open for EMS investment in Vietnam. However, to say that the industry is merely chasing low-cost labor around the globe misses the point. What providers are seeking is the lowest delivered cost of customer product. Harnessing a low-cost labor pool is only the first step toward this goal.

In a typical scenario for a new low-cost location, a provider would line up one or two customers who would commit production to the new facility when built. There is an unwritten industry rule that says EMS providers don't build plants on spec. When the new facility goes live, it would usually start with products that are high enough in labor content that the customer would see a net cost reduction. But the vast majority of products where labor content is low would not be good candidates for this plant. That's because, as the EMS world knows all too well, the cost of a cus-

tomers' product in most cases is largely driven by the materials content of the BOM. Unless the new location would result in a lower cost BOM, the provider would have a hard time selling many customers on this location. That's where a local supply base comes in.

More than once, *MMI* has presented the need to develop a local supply base for such low-cost locations. China is now so dominant in the EMS business because it combines low labor and material costs. But building up a local supply base can take years.

In the case of Vietnam, the typical playbook for low-cost greenfield operations is being tossed aside by **Hon Hai Precision Industry**. For one thing, Hon Hai is not starting with a modest investment in one site. Reportedly, the company intends to invest in five or six different locations in Vietnam under a \$5-billion plan to single-handedly develop Vietnam into a major center for EMS in Asia. Hon Hai is also departing from the norm by planning this huge investment ahead of customer demand. It would be far fetched to assume that Hon Hai has customers lined up already to justify its investment in five or six industrial parks and associated amenities.

Because of the scale of this devel-

opment, Hon Hai will need to create a local supply base to feed its manufacturing sites. This is no small task, but Hon Hai has supplier clout and affiliated companies to bring to bear. What's more, these sites must be able to demonstrate fairly quickly that customer quality levels won't suffer. Vietnam could be Hon Hai's biggest challenge yet.

The quest for low-cost labor continues, while Hon Hai makes its own rules for the pursuit.

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