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MMI Unveils the Top 50 for 2012

Survey results are in, and once again *MMI* has released its annual list of the 50 largest EMS providers worldwide. As seen on pages 2-4, the *MMI* Top 50™ EMS providers for 2012 are ranked in order of calendar 2012 sales.

For the second year in a row, Top 50 sales surpassed \$200 billion as 2012 sales totaled \$223.9 billion. The scale implied by this number should scotch any speculation that the EMS industry could be vulnerable to a wave of insourcing. Imagine the number of new OEM plants that would be required to put an appreciable dent in this number. As embodied by the Top 50, the EMS industry has so permeated OEM supply chains that reducing dependence on the industry is not an option for most OEMs despite the friction that sometimes occurs in OEM-EMS relationships.

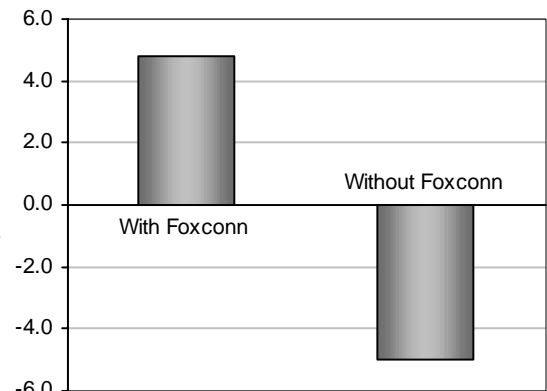
Though end market demand was weak or spotty in a number of OEM sectors last year, Top 50 sales still grew overall, rising 4.8% from the previous year. While this is a respectable result for a challenging year, there's more to it than meets the eye. That's because this growth can be attributed to just one company, EMS giant **Hon Hai Precision Industry**. Without Hon Hai's contribution, Top 50 sales would have fallen by 5.0% (Chart 1). Hence, Hon Hai was responsible for a 9.8-percentage point swing from a nega-

tive to a positive growth rate.

As has been the case in recent years, Hon Hai's size and above-average growth rate exerted an upward push on the overall growth of the Top 50. In 2012, Hon Hai generated consolidated sales of \$132.3 billion, representing a 59% majority of Top 50 revenue. The company's sales increased by 13% from the prior year, well above the Top 50 average of 4.8%. Hon Hai's sales growth may be slowing, but it is still high enough to give the rest of the Top 50 a major lift.

Hon Hai's heavy contribution to the Top 50 creates something of a dilemma. Should EMS providers benchmark themselves against Top 50 growth for 2012 since the Top 50 represents the vast majority of EMS industry sales? Or should providers use a Top 50 measuring stick that excludes Hon Hai, whose industry position is unique? It is

Chart 1: 2012 Growth of the Top 50 EMS Providers



understandable that a provider would exclude Hon Hai, but then the provider would be admitting that the space where it competes declined by around 5% last year.

Setting the bar

Making the Top 50 for 2012 was slightly more difficult than it was the year before. To qualify for the 2012 Top 50, an EMS provider needed a

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MMI Top 50

The MMI Top 50 EMS Providers in 2012

Organization	Head-quarters	Sales calendar 2012 (millions)	Rank by 2012 sales	2011 rank	Sales calendar '11-'12 2011 (millions)	Growth in US\$ (%)	No. of people	No. of plants	Total facility sq. ft.	Percent space in low-cost regions	No. SMT lines	No. of customers and notable customers
Hon Hai Precision Industry (Foxconn)	New Taipei, Taiwan	\$132,263	1	1	\$117,249	13	>1,400,000	not avail.	not avail.	not avail.	not avail.	Apple, Dell, HP, Cisco, Sony, Amazon, Nintendo, Microsoft
Flextronics International	Singapore	\$24,644	2	2	\$29,752	-17	159,000 ¹	not avail.	26.7 M ¹	~73	not avail.	Alcatel-Lucent, Cisco, Ericsson, HP, Huawei, Lenovo, Microsoft, Xerox
Jabil	St. Petersburg, FL	\$17,516	3	3	\$16,797	4	141,000	60	24.1 M	~75	not avail.	~200: Agilent, Apple, Cisco, Ericsson, EchoStar, GE, HP, IBM, NetApp, RIM
New Kinpo Group	New Taipei, Taiwan	\$6,634 ²	4	5	\$6,510	2	36,903	18	11.51 M	80	274	>30: HP, Seagate, Western Digital, Panasonic, Toshiba, Hitachi, TI, Casio, Pace, Nikon, Pioneer, GE, IBM, Dell, EMC, Lenovo, Asus, ASRock, Gigabyte, Sony, Buffalo, Epson, Samsung
Celestica	Toronto, Canada	\$6,507	5	4	\$7,213	-10	~30,000	21	>6 M	~70	not avail.	>100: Alcatel-Lucent, Cisco, EMC, HP, Honeywell, Hitachi, IBM, Juniper, NEC, Polycom, Raytheon, Oracle
Sanmina	San Jose, CA	\$6,086	6	6	\$6,442	-6	~44,000	75+	11.843 M ³	~64 ³	not avail.	Uros, Ciena, eSolar, Thales, EchoStar, GigOptix, Satcon Technology
Shenzhen Kaifa Technology	Shenzhen, China	\$2,580	7	7	\$2,883	-11	17,000	5	4.0 M	100	100	>30: Seagate, Western Digital, Hitachi, Kingston, Samsung, ZTE, Huawei, Epson, ResMed, Siemens, ENEL, Reliance
Benchmark Electronics	Angleton, TX	\$2,468	8	8	\$2,253	10	~10,000	21	3.082 M	~57	134	~100: Emerson, IBM, Applied Materials
Plexus	Neenah, WI	\$2,308	9	9	\$2,195	5	9,211	18	2.712 M	59	104	~140: GE, Coca-Cola, Kontron, Cerner
Universal Scientific Industrial (USI)	Shanghai, China	\$2,110	10	10	\$1,965	7	>13,000	5	2.378 M	79	120	>100 (EMS)
Venture	Singapore	\$1,908 ⁴	11	11	\$1,940	-2	>12,000	not avail.	not avail.	not avail.	not avail.	183: ABB, Agilent, HP, IBM, Intermec, Micros, NCR, Qualcomm, Oclaro, Talaris, Waters
SIIX	Osaka, Japan	\$1,374	12	13	\$1,157	19	8,223	7 ⁵	1.059 M	not avail.	110	~200
Zollner Elektronik Group	Zandt, Germany	~\$1,114	13	12	\$1,215	-8	8,000	16	2.81 M	~58	47	>500
UMC Electronics	Saitama, Japan	\$1,082	14	14	\$992	9	9,631	7	1.228 M	not avail.	129	
Sumitronics	Tokyo, Japan	\$906	15	16	\$862	5	~3,300	25 ⁶	not avail.	not avail.	342	60
Global Brands Manufacture (GBM)	New Taipei, Taiwan	\$796	16	18	\$697	14	~10,000	3	~1.937 M	100	154	>100
Beyonics Technology	Singapore	\$779 ⁷	17	15	\$950	-18	not avail.	9	not avail.	100	not avail.	
Kimball Electronics Group	Jasper, IN	\$651	18	20	\$657	~0	3,305	6	992 K	63	35	>20: Johnson Controls, BWI Group, Nualight, HyGreen, FARO, Grundfos, Brose Automotive, Motorola Solutions, TRW Automotive, Volcano, WABCO, Cosworth, Cooper Bussmann

Note: Unless otherwise indicated, data represents 2012 year-end. ¹ As of March 31, 2012. ² Sales represent Kinpo Electronics, Cal-Comp Electronics and Acbel Polytech (power supplies). ³ As of Sept. 29, 2012. ⁴ ODM business contributed about 35% of revenue. ⁵ Does not include six plants operated by affiliates. ⁶ Includes partner plants. ⁷ Sales of Beyonics' EMS division for the fiscal year ended July 2012.

The MMI Top 50 EMS Providers in 2012

Organization	Head-quarters	Sales Rank			Sales Growth		No. of people	No. of plants	Total facility sq. ft.	Percent space in low-cost regions	No. SMT lines	No. of customers and notable customers
		calendar 2012 (millions)	by 2012 sales	2011 rank	calendar 2011 (millions)	'11-'12 in US\$ (%)						
Asteelflash	Paris, France	\$638	19	17	\$766	-17	5,678	23 sites	1.925 M	38	56	~250
Integrated Micro-Electronics, Inc.	Laguna, Philippines	\$616 ⁸	20	24	\$502	23	13,088	15 sites	2.1 M	90	130	>250: Bosch, Japan Climate Systems
Fabrinet	Pathumthani, Thailand	\$608	21	19	\$668	-9	4,700	3	1.2 M	100	16	JDSU, Oclaro
3CEMS Group	Guangzhou, China	\$566	22	23	\$510	11	12,000	7	2.274 M	100	48	198: Asus, Panasonic, Finisar, Fujifilm, Goodman Air Conditioning and Heating, Honeywell, Sony, Tridium
Creation Technologies	Burnaby, BC, Canada	\$517	23	21	\$546	-5	~3,000	13	821 K	15	36	~200
Enics	Zürich, Switzerland	\$503	24	22	\$524	-4	3,100	8	756 K	50	not avail.	ABB, Atlas Copco, Bombardier, Danfoss, Gambio, Getinge, Honeywell, KONE, Leica, Roche Diagnostics, Schneider Electric, Vaisala, Varian Medical
éolane	Le Fresne sur Loire, France	\$468	25	31	\$363	29	3,300	19	1.378 M	29	37	450: Dassault, Thales, Safran, EADS, Alstom, Schlumberger, France Telecom, SFR, Atlas Copco, Areva, DGA, Somfy, Fukuda, PSA, Renault, Valeo, Mentor, Rolls Royce, Philips
Di-Nikko Engineering	Nikko, Japan	\$452	26	new	\$470	-4	4,500	13 ⁹	668 K	61	65	38: Canon
VTech Communications	Hong Kong	\$446	27	27	\$417	7	4,000	1	650 K	100	19	75
VIDEOTON Holding	Székesfehérvár, Hungary	\$444	28	26	\$455	-2	7,000	11	5.9 M	100	20	>50: Braun, BSH, Electrolux, 3M, Philips, Bosch, BWI, Continental, Delphi, Valeo, Visteon, ABB, GE, Alstom, Carrier, Eaton, Emerson, Hager, Itron, Kopp, Legrand, Barco, NCR, Sensus, Siemens, Linak
Ducommun LaBarge Technologies	St. Louis, MO	\$437	29	39	\$288	52	2,000	13	860 K	3	10	175: Raytheon, Owen-Illinois, Schlumberger
WKK Technology	Hong Kong	\$435	30	29-30	\$388	12	6,147	1	1.5 M	100	35	35
Wong's International (Holdings) Limited	Hong Kong	\$430	31	25	\$497	-13	~3,900	2	1.023 M	100	55	35
V.S. Industry	Senai, Malaysia	\$397	32	32-33	\$350	13	5,115	9	1.404 M	100 (estimated)	32	66: Dyson, Itron, Valeo Thermal Systems JPN, Panasonic, Keurig
KeyTronicEMS	Spokane Valley, WA	\$367	33	41-42	\$281	31	2,926	10	945 K	80	8	48
Topscorn Technology	Hong Kong	~\$360	34	29-30	\$320 ¹⁰	13	6,000	3	2.153 M	not avail.	60	100: HP, Philips, Cisco
Neways Electronics International	Son, The Netherlands	\$354	35	28	\$395	-10	2,052	13	not avail.	40	19	~640: ASML, FEI, Philips, Rhein Metal, ThyssenKrupp

Note: Unless otherwise indicated, data represents 2012 year-end. ⁸ Does not include IMI's sales of power semiconductor assembly and test services.

⁹ Includes six partner plants. ¹⁰ Original 2011 figure supplied by the company was higher.

MMI Top 50

The MMI Top 50 EMS Providers in 2012

Organization	Head-quarters	Sales calendar 2012 (millions)	Rank by 2012 sales	2011 rank	Sales calendar 2011 (millions)	Growth '11-'12 in US\$ (%)	No. of people	No. of plants	Total facility sq. ft.	Percent space in low-cost regions	No. SMT lines	No. of customers and notable customers
OnCore Manufacturing	San Jose, CA	\$352	36	32-33	\$350	-0	1,500	9	611 K	29	40	~100
Hana Micro-electronics	Bangkok, Thailand	\$335	37	return-ee	\$320	5	8,500	2	910 K	100	91	150: Synaptics, Avago, Lumiled, Sensata, HID, Safenet
PartnerTech	Vellinge, Sweden	\$332	38	34	\$358 ¹¹	-7	1,391	11	890 K	32	13	>200: Tomra, CybAero, Dignitana, BAE GCS, ABB, Safetykleen
SMTC	Markham, Ontario, Canada	\$296	39	48	\$220	34	2,300	5	600 K	72	38	36: IMAXDI, FICOSA, Alstom Transport
Kitron	Billingsstad, Norway	\$291	40	36	\$296	-2	1,169	7	>431 K	28	15	Kongsberg, HMS Industrial Networks, Lely, Rheinmetall Defence, Badger Meter
SMT Technologies	Sungai Petani, Kedah, Malaysia	\$284	41	41-42	\$281	1	1,402	2	308 K	100	23	14: Western Digital, Dyson, OJE
Orient Semiconductor Electronics	Kaohsiung, Taiwan	\$282	42	return-ee	\$269	5	2,165	6	590 K	99	78	90
Selcom Elettronica	Bologna, Italy	\$276	43	37-38	\$294	-6	not avail.	7	646 K	not avail.	not avail.	75: BSH, Electrolux, Indesit, KONE, GD, Gambro, Denso, Sanyo Energy
CTS Electronics Manufacturing Solutions	Lisle, IL	\$273	44	35	\$309	-12	1,300	5	350 K	37	20	80: Qualstar
SVI	Bangkadi, Pathumthani, Thailand	\$259	45	43	\$279	-7	2,664	5	1 M	100	21	26: ABB, Danfoss
MC Assembly	Palm Bay, FL	\$257	46	45-46	\$235	9	1,500	3	353 K	25	22	~40
Scanfil EMS	Sievi, Finland	\$234	47	37-38	\$294	-20	1,653	5	1.238 M	78	not avail.	
PCI	Singapore	\$218	48	47	\$232	-6	not avail.	not avail.	not avail.	not avail.	not avail.	
LACROIX Electronics	Vern-sur-Seiche, France	\$216	49	45-46	\$235	-8	1,800	4	~377 K	~45	20	
EPIC Technologies	Norwalk, OH	\$210	50	49	\$214	-2	1,350	4	380 K	65	20	41

Note: Unless otherwise indicated, data represents 2012 year-end. ¹¹ Original 2011 figure supplied by the company was lower.

minimum of \$210 million in revenue. By comparison, the bar for 2011 was set a bit lower at \$208 million. The 2012 cutoff fell well short of the 2010 minimum of \$233 million, the highest barrier to entry recorded so far (Chart 2, p. 5). Sales declines at the bottom rungs of the Top 50 kept the cutoff from rising.

Two providers from the 2011 list, **Alco Electronics** and **Connect Group**, endured sales declines that dropped them below the 2012 cutoff. In addition, a third provider, **SRI Holding**, came off the list because it

filed for insolvency in 2012.

Three departures meant that there were three additions to the Top 50, and all are based in Asia. Two of them, **Hana Microelectronics** and **Orient Semiconductor Electronics**, returned to the list after a one-year absence. Japan's **Di-Nikko Engineering** joined the Top 50 club for the first time.

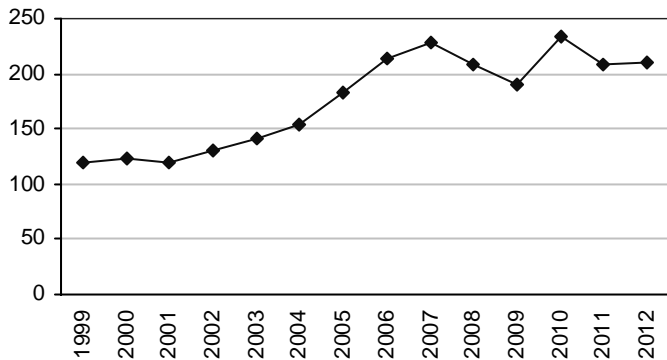
Top ten countdown

The makeup of the top ten providers did not change from 2011, but two companies swapped places. Hon Hai,

of course, retained its virtually unsailable number-one position. **Flextronics** and **Jabil** ranked second and third respectively, as they did in 2011. **New Kinpo Group** moved up one position to fourth place, while **Celestica** dropped one position to fifth. Next came **Sanmina**, **Shenzhen Kaifa Technology**, **Benchmark Electronics**, **Plexus** and **Universal Scientific Industrial** in that order, which was unchanged from 2011.

To become a member of the top 10, a provider had to generate sales of at least \$2.11 billion, compared with

Chart 2: Top 50 Cutoff (Millions USD)



\$1.97 billion for 2011. The bar for admission went up by 7%, making it clear that any provider with less than \$2 billion in sales need not apply.

For 2012, the top 10 accounted for 90.7% of Top 50 sales, showing how top-heavy the EMS industry has become. The top 10's share remained essentially unchanged from 2011, when the top 10 garnered 90.6% of total revenue. Top 10 growth came in at 5.1%, slightly above the Top 50 average of 4.8%.

Climbing the ranks

A total of 11 companies moved up in the standings from 2011. In two other cases, it is unclear whether providers advanced or stayed put because of ties that occurred in 2011. There was less upward mobility in 2012 than in 2011 because sales growth was not as great and fewer open slots were available.

Ducommun La-Barge Technologies (29th), a unit of Ducommun, jumped 10 places, the greatest advance of any Top 50 provider in 2012. The unit benefited from a full year of sales from Ducommun's 2011 acquisition of La-Barge. **SMTC** (39th) moved up nine positions,

while **KeyTronicEMS** (33rd) climbed by eight or nine spots in the standings.

As in 2011, a 52% majority of the 2012 Top 50 had sales of less than \$500 million. But unlike the previous year, the largest number of providers resided in the \$300 million to \$499 million bracket. Interestingly, there were more companies in the \$1 billion to \$10 billion bracket than in the \$500 million to \$999 million bracket (Chart 3 below).

Two participants in the Top 50 survey reported revenue that was below the Top 50 cutoff. They are **Alco Electronics** (\$202 million) and **DBG Holdings Limited** (\$176 million), both based in Hong Kong.

Ratios for benchmarking

Top 50 data yield several productivity ratios. Take revenue per employee. Employee counts for 47 companies

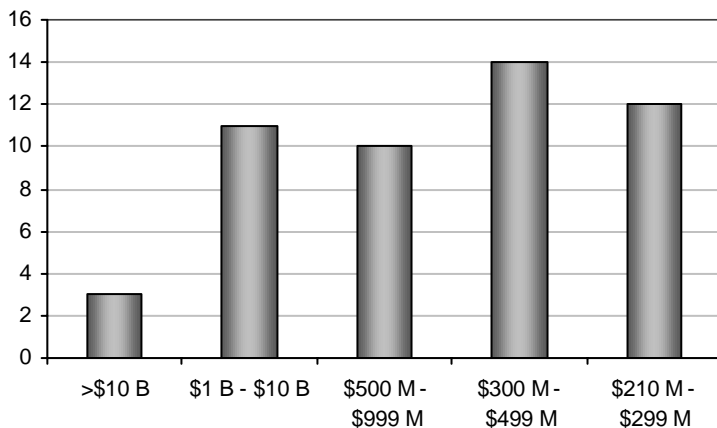
totaled some 2.0 million people, more than 1.4 million of which worked for Hon Hai. If one were to assume 1.4 million employees for Hon Hai, the revenue per employee for these 47 providers works out to \$111,900 (versus \$115,700 for 2011). But this ratio is skewed by the economics of Hon Hai's massive Chinese workforce. With Hon Hai excluded, revenue per employee increases to \$150,500, nearly the same as the 2011 ratio of \$150,700 based on a somewhat different group of 46 companies that also excluded Hon Hai. Despite the difference in makeup of the two groups (four companies in the 2012 ratio were not represented in the 2011 ratio), this metric changed little, lending some credence to its value.

A second ratio, revenue per square foot, was derived from 44 providers that supplied facility space data. On average, their facilities generated \$685 of revenue per square foot. This 2012 ratio is 4% below the 2011 average of \$716, which was computed from 42 providers. Note that these two ratios are approximate: they incorporate some data that are imprecise or correspond to different time periods.

Top 50 data can also be used to calculate revenue per SMT line. Of the 50 providers, 39 companies reported the number of SMT lines that they operate. Revenue per SMT line for these companies averaged \$12.7 million, which was down slightly from the 2011 ratio of \$12.9 million per line computed for a somewhat different group of 39 Top 50 providers. Note that revenue per SMT line is highly variable, depending on the speed and productivity of a line, whether it's single- or double-sided, and the amount of EMS revenue generated by box build.

Methodology. Where information was not publicly available, *MMI* depended on companies to provide accurate data. Companies were asked to convert sales in non-US currencies

Chart 3: Distribution of Top 50 Providers by 2012 Sales



into US dollars, if necessary, by using an average annual exchange rate corresponding to the sales year. Where possible, sales of non-EMS businesses were excluded. A number of the largest providers do not break out the sales of their non-EMS businesses. Hence, the Top 50's total revenue is not purely EMS. For a further discussion of this topic, see the Last Word column on pages 7-8.

News

Deal done... Recently, **Jabil** (St. Petersburg, FL) acquired **CHAD Industries** (Anaheim, CA), a privately owned maker of automation equipment for board assembly, semiconductor wafer handling, solar cell automation and other applications. CHAD's "technical talent is a great addition to our automation team. Automation is a keen area of interest for Jabil and an ever-advancing capability, a capability which is most impactful to our business," said Jabil's new CEO, Mark Mondello, during the company's earnings call this month. The company completed the deal in December 2012 but did not disclose it until the earnings call. Financial details have not been made public. This disclosure follows on the heels of Jabil's **Nypro** announcement last month (Feb., p. 7-8).

Deal not done... In the end, **Hon Hai Precision Industry** (Tucheng City, Taiwan) and **Sharp** did not come to terms regarding the sale of Sharp's TV factory in Mexico to Hon Hai, reported *Digitimes*. Earlier reports indicated that the two companies had reached an agreement that would provide for the sale of Sharp's TV plants in Mexico, China and Malaysia to Hon Hai (Dec. 2012, p. 7). Sharp is negotiating the sale of its China and Malaysia plants with separate buyers, one of which may be **Lenovo**, according to a *Bloomberg* report relying on a Japanese newspaper.

Alliances... According to published reports from Asia, Hon Hai will enter into a joint venture with **LeTV.com**, an online video portal in China. Reportedly, Hon Hai will manufacture LeTV-branded large-screen TVs and Internet TV boxes under this alliance. The partnership with LeTV.com is one of Hon Hai's endeavors to merge software and content delivery with large-screen TVs, reported Taiwan's *Central News Agency*, citing the adult son of Hon Hai chairman Terry Gou.... Under a new agreement with **Plexus** (Neenah, WI), EMS provider **U.S.R. Electronic Systems** (Karmiel, Israel) will support the needs of Plexus' customers requiring manufacturing and engineering solutions within Israel. In addition, Plexus will present USR customers with Product Realization solutions in locations where USR does not currently operate, including North America, Europe and the Asia-Pacific region.... EMS provider **ES-CATEC** (Penang, Malaysia) has formed a partnership with **UID**, a German design company that specializes in user experience analysis and user interface development. Together, the two companies are offering customers a complete solution that is fully integrated through every stage of product design and manufacturing.... **Ryder Industries** (Hong Kong), a Swiss-owned EMS provider, has teamed up with Taiwan-based **JUSTING Technology**, a developer of LED lighting. JUSTING will provide technical resources for design, engineering and testing of LED lighting products and power-saving control devices, while Ryder will be the primary manufacturer.

Some new business... **Flextronics** (Singapore) will manufacture and provide design support for the system components of a mobile diabetes management system developed by **Cellnovo** (Swansea, Wales, UK). The system includes an insulin pump, cartridge

and touch-screen handset.... **Volcano** (San Diego, CA), another medical device company, has selected **Kimball Electronics Group** (Jasper, IN) to produce a 19-in. medical-grade display monitor, which Volcano will provide to hospitals around the world for checking vital signs. Kimball Electronics said it won the business based on past performance and a prior relationship with Volcano. Manufacturing will take place at Kimball Electronics' Tampa, FL, operation. In addition, **Brose Automotive** (Coburg, Germany) has awarded Kimball Electronics an additional automotive assembly contract. The new multiyear, multi-million dollar contract includes manufacturing of PCB assemblies for electronic switch controls used in vehicle windows. Kimball Electronics will produce assemblies for this contract in Nanjing, China, and Reynosa, Mexico.... **HMS Industrial Networks** (Halmstad, Sweden) has chosen **Kitron** (Billingstad, Norway) as EMS provider for HMS's industrial network products under the Anybus and Netbiter brands. The three-year contract is worth NOK 100 million (\$17.3 million). Kitron's factory in Lithuania will handle manufacturing. Also, **Lely** (Maassluis, The Netherlands), an agricultural machine maker, has engaged Kitron to deliver electronics for Lely's milking robots. Like the HMS contract, production will occur at Kitron's factory in Lithuania.... **IMAXDI**, a Spanish biomedical engineering company, has engaged **SMTC** (Markham, Ontario, Canada) to build a mobile communications medical device that captures vital sign data through a series of portable wireless sensors. SMTC's San Jose, CA, facility will support the launch of the product. For product design, SMTC will utilize the skills of its design partner, **Idneo**, to provide IMAXDI with accelerated product compliance and certifications. Idneo is a product design subsidiary of **FICOSA International** (Barcelona,

Spain), an SMTC customer in the automotive field. (See also Dec. 2012, p. 7-8.)

People on the move... At Jabil, the board of directors has promoted William Peters to president and William Muir to COO, effective March 1st. Both executives have been with the company for more than 20 years, and both held the title of executive VP since 2010. Muir succeeds former COO Mark Mondello, who became CEO on March 1st (Oct. 2012, p. 8). Peters' new role as president was formerly combined with the CEO position. In addition, Scott Slipy has joined Jabil as executive VP, Human Resources and Human Development. As seasoned HR veteran, Slipy most recently served as VP of Compensation, Benefits and M&A at **Cisco Systems**. Last month, Hannu Keinänen took the reins as president and CEO of **Enics Group** (Zürich, Switzerland). Keinänen joined Enics from Finnish technology company **Ensto Oy**, where he served as a business unit president. His resumé includes a 10-year EMS stint at now defunct **Elcoteq**. Keinänen succeeded Dirk Zimanky, who became senior VP responsible for Market Execution, overseeing customer relationship management, sales and marketing. Also, Petri Helin, who had been senior VP of customer relationship management and acting head of Supply Chain for Enics, has assumed the full-time role of senior VP, Supply Chain of Enics. **Scanfil** (Sievi, Finland) has appointed Petteri Jokitalo as its new CEO effective April 1st. He takes the place of Harri Takanen. Currently, Jokitalo is the sales director for the company's contract manufacturing business. **OnCore Manufacturing** (San Jose, CA) has promoted David Brakenwagen to senior VP of worldwide sales and marketing. At **Nortech Systems** (Wayzata, MN),

Richard Wasielewski has moved up to the new position of president and COO. SMTC has appointed Fernando Ibanez VP and GM of its Mexican manufacturing facility in Chihuahua. With over 30 years of management experience in electronics manufacturing, Ibanez had served as VP and GM for a tier-one EMS provider in Monterrey, Mexico, before joining SMTC. Pierre Ball has joined **LA-CROIX Electronics** (Vern-sur-Seiche, France) as a GM of its German facility in Willich near Düsseldorf. **I. Technical Services** (Alpharetta, GA) has promoted Lauren Thompson to GM. She is the daughter of founder and CEO Michael Thompson. Gregg Mozdy has joined **Cirtronics** (Milford, NH) as VP of business development. Most recently he was VP of business development at **Senior Systems Technology**, an EMS provider that folded last year. Björn Wigström has given notice that he is resigning from his position as CFO of Kitron. The company is searching for a replacement. Knud Andersen, CEO of **BB Electronics** (Horsens, Denmark) will be leaving the company, as it reorganizes following the loss of production from a large customer. COO Carsten Christensen replaces him as of March 1st.

New facility... OnCore Manufacturing is opening its second production facility in Tijuana, Mexico, in response to customers' requests for additional manufacturing in the fast growing North of Mexico area. Services offered by the new 84,000-ft² facility include NPI, high-mix quick-turn-around manufacturing, systems integration and direct order fulfillment.

Operations being closed in Europe... **Neways Electronics International** (Son, The Netherlands) intends to terminate the activities of its operating company Neways Electron-

ics Echt, an EMS operation in Echt, The Netherlands, specializing in industrial control electronics. Neways the parent said the decision was prompted by the continuing volatility in the EMS market and the ensuing persistent imbalance in capacity utilization within the Neways group. The Echt operation books annual sales of around 15 million euros. All of its activities, including the entire inventory of machines, will be redeployed to other Neways operating companies. **Stadium Group** (Hartlepool, UK) has decided to close its plant in Rugby, UK, and to transfer production to its other UK site in Hartlepool and to Asia, according to reports out of the UK.

Last Word

When EMS Is Not Enough

Jabil's prospective acquisition of **Nypro** (Feb., p. 7-8) will be one of the largest deals made by an EMS provider in recent years, yet Nypro, a major plastics manufacturer, operates entirely outside the EMS industry. The Nypro deal is perhaps the most visible sign that a number of the largest EMS providers have been diversifying not only within the EMS space but also outside it. What this trend means is: As providers reach a certain size, they become less likely to follow a pure-play EMS model. It is perhaps ironic that these large diversified providers, which account for the majority of EMS industry sales, do not want to be entirely dependent on the EMS market.

Large providers have opted to move into or develop a variety of non-EMS businesses such as plastics, PC boards, power supplies, machining and mechanical work and aftermarket services (AMS), to name some of the more salient examples. But when it

Last Word

comes to diversification outside the EMS industry, gigantic **Hon Hai Precision Industries** is in a class by itself. Hon Hai's tentacles reach many different industries and businesses including components, software, channel sales, ODM PCs, retail outlets, solar power plants and reportedly railroads.

A major motivation for diversifying beyond the EMS industry is the ability to raise margins above EMS levels. When non-EMS businesses are running right, they will in most cases deliver margins above what can be expected from EMS work. Of course, when demand is weak, as during the Great Recession, these businesses can also act as a drag on margins. They can also be subject to other problems. So non-EMS businesses are not risk-free, and some ventures outside the EMS industry have been divested or shut down. Still, the largest providers have the size and financial wherewithal to wait out periods of slow demand or correct other problems that might arise.

There are other reasons for pursuing business outside the EMS space. Non-EMS activities expose providers to markets and growth potential that they would not otherwise have access to. In some cases, these businesses can provide a synergistic add-on to an EMS offering. Think EMS plus AMS or in the case of medical customers

disposable plastics combined with EMS. In other cases, these activities can provide vertical integration within a supply chain.

This trend of diversification outside the EMS industry presents some challenges for the likes of *MMI*. When responding to *MMI's* annual survey to find the Top 50 EMS providers, the largest providers typically do not exclude their non-EMS businesses. See this month's cover story. Some information on EMS versus non-EMS sales is publicly available, but not enough to list each of these providers in order of EMS sales. For ranking the largest companies in the 2012 Top 50, *MMI* continued to use total sales, an imperfect metric, but the only solid number available in a number of cases.

What to call these companies is another issue. No longer are they strictly EMS providers since they engage in other activities as well as EMS. Problem is, these other activities vary from company to company. Tim Main, former CEO and current chairman of Jabil, recently described Jabil as a global manufacturing services company whose diversification necessitates dropping the 'E' from its former EMS moniker. Another provider uses the term integrated manufacturing services, which also implies more than EMS. Due to competitive positioning and differences among busi-

ness models, one cannot expect providers to start using the same language to describe themselves. But at the top of the industry, descriptive language will evolve in ways to recognize non-EMS as well as EMS activities, *MMI* believes.

Jabil and others who have ventured outside the EMS industry can still be considered EMS providers. But they are no longer pure-play EMS companies.

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