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inside the contract manufacturing industry

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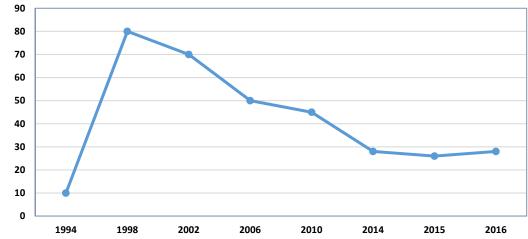
Annual Increase in M&A Deals

In 2016 the number of EMS industry mergers and acquisitions increased from the year before. A total of 28 M&A transactions closed during 2016, up 7.7% from a revised count of 26 in 2015. Transaction totals have been in decline since a postrecession high of 45 in 2010 (Chart 1). The lackluster macro environment and associated uncertainties that followed the recession have not encouraged deal making.

MMI's annual Scorecard of EMS industry M&A activity on pages 2 and 3 lists the transactions closed in 2016 and classifies them according to four categories developed by MMI.

The most common deal in 2016 was the service or supply chain extension (marked S on the Scorecard). With these transactions, EMS providers acquire a horizontal or vertical capability. Back in the pre-recession days, capability deals were more commonplace. Last year, there were 12 instances of EMS providers buying competitors' operations to extend service or supply chain capabilities, decreased from 20 the year before (Chart 2, p. 4). As the industry has matured and providers have built out their service offerings, fewer companies generally need to acquire capabilities.

Chart 1: EMS Industry Mergers and Acquisitions



EMS providers continue to acquire operations of competitors in substantial numbers. In 2016, this was the second most popular type of deal, as it was the year before. Last year, there were nine instances of EMS providers buying competitor operations (marked C on the Scorecard), up from five the year before (Chart 2). All of these 2016 deals resulted in consolidation, or the loss of an independent provider.

Industry consolidation persists, though the number of consolidation deals has bounced around from year to year (Chart 3, p. 4). The consolidation count of nine deals in 2016 was 36% below a 14-year average of 14.

In the early part of the 2000s, OEM divestitures contributed a significant number of deals. As the industry progressed, these deals, often in high-cost areas, became less and less

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	MMI Sc	orecard	d: EMS Industry Merge	rs and Acquis	itions in 2016
Deal Maker	Home Base	Туре	Target	Location	Some Details
Foxconn	Taiwan	C*	Sharp	Japan	EMS giant Foxconn acquired Japanese electronics company Sharp for about \$5.3 billion.
Foxconn Interconnect Technology	Santa Clara, California	0	Avago Technologies	California	Foxconn Interconnect announced that it has finished acquisition of the optical module business unit and related assets of US-based Avago Technologies.
Chemigraphic	UK	C*	CRS Electronics, Ltd.	UK	UK-based EMS provider Chemigraphic has acquired CRS Electronics, Ltd., a Hertfordshire-based contract manufacturing business, for an undisclosed sum.
SVI Public Company	Thailand	C*	Seidel Electronics	Austria	SVI acquired Austrian EMS provider Seidel Electronics Group. The transaction supports the expansion of SVI's business in European markets, in particular in the German-speaking regions where the company is currently underpenetrated.
Ingram Micro	California	S	NEXTUSA	Greenville, SC	Ingram Micro acquired NEXTUSA, a unified communications and collaboration value-added distributor focused on VOIP solutions and IP phones.
Schouw & Co.	Denmark	S	GPV International	Denmark	Schouw & Co. has acquired Danish EMS firm GPV International at the price of DKK400 million.
Tekmart Integrated Manufacturing Services	Mexico	S	Sanyo Plastics	Mexico	EMS provider Tekmart Integrated Manufacturing Services (TIMS) has continued its expansion in Mexico through the acquisition of the Sanyo Plastics operation in Tijuana.
Foxconn	Taiwan	S	TeleEye Holdings	Hong Kong	The acquisition of TeleEye Holdings will provide Foxconn with access to the network surveillance market as well as ownership of related hardware technologies.
PARPRO	Taiwan	C*	Cal Quality Electronics	Santa Ana, CA	PARPRO has acquired privately held Cal Quality Electronics. The acquisition will expand PARPRO's US-based EMS capabilities and complement PARPRO's "global ODM strategy."
NOTE	Sweden	0	Dynamic Precision AS	Norway	As part of NOTE's streamlining process, its unit in Oslo has been sold to Dynamic Precision AS of Norway. In 2015, the Norwegian operations generated sales of NOK52 million (€5.6 million).
Cemtrex	New York	S	Periscope	Germany	US-based Cemtrex entered into an agreement to acquire all the assets of Periscope, located in northern Germany.
Nokia	Finland	S	Withings	France	Nokia acquired Withings, a French consumer electronics company focused on digital health, for €170 million (\$191 million) in cash. The acquisition will significantly boost Nokia's portfolio of wearables and fitness devices.
Foxconn	Taiwan	S	Smart Technologies	Canada	Foxconn purchased Smart Technologies in an all- cash deal worth \$200 million.
Kimball Electronics	Indiana	S	Aircom Manufacturing	Indiana	Kimball Electronics purchased Aircom Manufacturing two months after buying a subsidiary of that firm, in two deals totaling \$11.8 million and involving 165 employees.
NEOTech	Chatsworth, CA	0	Flex's microelectronics business unit	Singapore	Flex has sold its high-mix microelectronics business unit in Valencia to NEOTech. Valencia supports complex, high-reliability products serving the medical and aerospace and defense markets.
Foxconn	Taiwan	0	Microsoft Mobile Vietnam, Ltd.	Vietnam	Foxconn acquired Microsoft Mobile Vietnam, Ltd. for a consideration of \$22 million to produce feature and smart phones in the southeast Asian country. The actual buyer of the Microsoft plant is Chief Expertise, Limited, a unit under FIH Mobile.
OKI	Japan	C*	Avio	Japan	OKI continued its push into EMS with an agreement to buy Nippon Avionics's (Avio) printed circuit board business.

Deal Maker	Home Base	Туре	Target	Location	Some Details
STMicroelectronics	Switzerland	0	AMS	Austria	Chip maker AMS has sold its NFC and RFID reader product lines to STMicroelectronics. This acquisition builds on secure microcontrollers and gives ST all of the building blocks to create the next generation of highly integrated, secure NFC solutions for mobile devices and a broad range of Internet of Things devices.
Nokia	Finland	S	Gainspeed	Sunnyvale, CA	Through this acquisition, Nokia is seeking to diversify its product portfolio for cable access customers and expand its footprint in this market.
Analog Devices, Inc.	Massachusetts	C*	Linear Technology	California	Analog Devices acquired Linear Technology for \$14.8 billion, continuing the trend of big consolidations within the semiconductor sector.
Integrated Micro-Electronics	Philippines	S	Via Optronics	Germany	Integrated Micro-Electronics signed an agreement to acquire a 76% stake in Via Optronics for \$53.7 million.
Fabrinet	Thailand	C*	Exception EMS	UK	With its acquisition of Exception EMS, Fabrinet is establishing a strong foothold in Europe, which will allow it to grow its business with European customers, and give them access to its advanced low-cost manufacturing services in Thailand.
Zentech Manufacturing	Windsor Mill, MD	S	Interconnect Design Solutions	South Carolina	Zentech Manufacturing announced the acquisition of an electronics design engineering company, extending the EMS company's reach into front-end services.
TE Connectivity	Switzerland	S	Intercontec Group	Germany	TE Connectivity announced an agreement to acquire the Intercontec Group. The acquisition represents an important step in TE becoming a full solution provider, particularly for factory automation and machinery customers.
HP, Inc.	Palo Alto, CA	0	Samsung's printer business	South Korea	HP, Inc. agreed to buy Samsung Electronics Co.'s printer business for \$1.05 billion, a deal designed to bolster the Silicon Valley company's offerings in the market for high-volume devices that handle printing and copying for office work groups.
Hindley Circuits	UK	N	Opsol UK	UK	The UK EMS market has a new player, Hindley Circuits, backed by Andrew Lapping of Hamilton Capital Partners, which has acquired the trade and assets of Opsol UK, and with that saved the jobs of 23 staff members.
Samsung Electronics	South Korea	C*	Harman International Industrie	s Stamford, CT	Samsung Electronics acquired Harman International Industries for approx. \$8.0 billion. The transaction will immediately give Samsung a significant presence in the large and rapidly growing market for connected technologies.
Aimtron	Palatine, IL	C*	Target Corporation	Wisconsin	Aimtron Corp. announced the acquisition of Target Corporation (including its Cardion Electronics Division), which is involved in manufacturing and servicing military equipment, for over \$1 million in cash.

C = CM acquiring or merging with CM operation. O = OEM divesting OEM operation. S = service or supply chain extension. N = new player. *Consolidation deal.

attractive. But they didn't go away completely. For 2016, *MMI* counted six OEM divestitures (marked O), up—surprisingly—from one the year before.

One might think that a mature EMS industry, notorious for low margins, would not attract any new players.

However, that has not been the case. One company, Hindley Circuits, entered the EMS industry via acquisition last year (marked N), versus none the year before.

MMI also keeps track of alliances and equity partnerships, which are an

alternative to M&A deals. In 2016, there were 15 of these partnerships, up from 12 formed the year before (see Table 1, page 4).

Note that the M&A Scorecard does not include private equity deals or divested assets sold to industry outsiders.

	T	able 1: EMS Industry	/ Alliances	and Equity Partnerships in 2016
Company	Home Base	Partner	Location	Some Details
LACROIX Electronics	France	MicroEJ	France	LACROIX Electronics and MicroEJ have entered into a partnership to accelerate the development and production of Internet of Things (IoT) devices and embedded electronic products for the European market.
Sanmina Corporation	San Jose, CA	Nokia	Finland	EMS provider Sanmina Corporation (San Jose, CA) will collaborate with Nokia (Finland) for the delivery of a range of data center solutions to enable operators to harness the cloud.
InvenSense	San Jose, CA	Avnet	Phoenix, AZ	InvenSense, Inc., a provider of MEMS sensor platform solutions, announced the extension of its strategic distribution agreement with Avnet, Inc., a technology distributor, increasing its footprint and expanding the "Internet of sensors."
Ericsson	Sweden	Quanta Computer	Taiwan	Ericsson and Quanta Computer have entered into a strategic partnership to scale the design, development, and manufacturing of an expanded next-generation data center solution based on the Ericsson Hyperscale Datacenter System 8000.
Inventec	Taiwan	Advantech	Taiwan	Inventec and Advantech announced the establishment of a joint venture, AlMobile, for R&D, production, and marketing of industrial wireless mobile devices for retail, automotive, and medical applications at an initial paid-in capital of NT\$1 billion (US\$30.3 million).
Vexos	LaGrange, OH	cms electronics	Austria	Vexos and cms electronics have entered into a strategic partnership agreement. The agreement aims to strengthen the global reach and scale of each company and give customers additional ability to more easily start locally and scale globally.
MediaTek	Taiwan	NavInfo	China	lem:lem:lem:lem:lem:lem:lem:lem:lem:lem:
Integrated Micro-Electronics	Philippines	Macnica Europe GmbH	Germany	Philippines-based EMS provider Integrated Micro-Electronics, Inc. has entered into a value-added reseller partnership with Macnica Europe GmbH.
HANZA	Sweden	Free2move	Sweden	Swedish EMS provider HANZA has signed a cooperation agreement with Free2move regarding industrialization and manufacturing of the company's current and future products.
PKC Group	Finland	Bombardier Transportation	Germany	PKC Group has signed a global partnership agreement with Bombardier Transportation related to electrical systems deliveries. The agreement makes PKC a strategic supplier partner to Bombardier.
Invensas Corporation	San Jose, CA	Jabil	St. Petersburg FL	t, Tessera Technologies subsidiary Invensas Corporation and EMS provider Jabil have completed the first phase of qualification of Invensas's Bond-Via-Array (BVA) interconnect technology.
Brighter	Sweden	Sanmina	San Jose, CA	Brighter has entered into a partnership with Sanmina to produce the first generation of Actiste, a connected diabetes device that allows users to monitor blood sugar, inject insulin, and log blood sugar levels and insulin doses in a single device.
Flex	Singapore	Aito	Finland	Flex and Aito, a supplier of haptic interface technology, have partnered to enhance the automotive user experience.
Bose Corporation	Massachusetts	Flex	Singapore	Bose Corporation and Flex have reached an agreement to expand their existing partnership. As part of the new agreement, ownership and operation of Bose's manufacturing and development operations in San Luis, Mexico and Penang, Malaysia will transfer to Flex, and Flex will assume current and planned Bose production in both facilities.
Innolux	Taiwan	NEXT Biometrics	Norway	Innolux and NEXT Biometrics Group ASA are jointly investing to establish mass production for NEXT Biometrics's new flexible fingerprint sensor technology.

Chart 2: Deal Breakdown 2016 Versus 2015

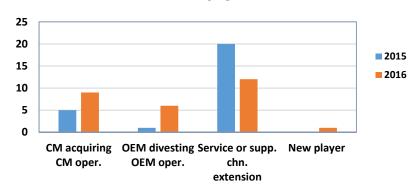
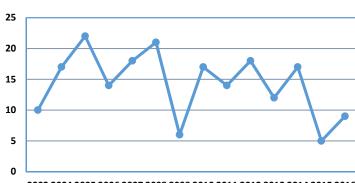


Chart 3: Consolidation Deals



Down Year for US-Traded Group

Growth in combined revenue for the six largest US-traded providers was negative 3.8%. Fortunately, fourth-quarter results on the whole came in better than expected, though 2016 will still be a down year for this group.

Revenue for the six providers totaled \$58.04 billion in 2016, compared with \$60.31 billion in 2015. Last year, sales decreases at four providers offset revenue increases at two providers, with the third company in the table (Sanmina) holding the highest growth position with 6.9% sales growth. Annual growth rates ranged from 6.9% for Sanmina to -11.3% for Benchmark (Table 2, below).

In Q4, the six providers together generated sales of \$15.79 billion, declining 3.2% from the same period a year ago. This decline was driven by **Flex** and, to a lesser extent, Benchmark, while only Sanmina attained double-digit growth. Sanmina and **Celestica** were the only two companies with appreciable Q4 growth on a year-over-year basis.

On a sequential basis, the group's Q4 revenue increased 5.9%, largely due to **Jabil**, with support from Celestica and Sanmina. Altogether, four providers increased their sales sequentially, with Jabil posting double-digit gains, which were

enough to outweigh declines at the other two providers (Table 2).

Five out of six providers follow GAAP accounting rules, while the sixth, Celestica, adheres to IFRS reporting standards. For the five GAAP companies, GAAP gross margin in Q4 was a combined 9.9%, up 20 basis points sequentially and down 30 basis points year over year. Flex, Jabil, and Sanmina were able to raise their gross margins from Q3, while only **Plexus** and Flex were able to improve their margins from the year-earlier period.

Together, the five companies in Q4 produced a GAAP operating margin of 3.1%, up 130 basis points sequentially and down 20 basis points year over year. Operating margins for both Jabil and Plexus came in at 3.9%, with Benchmark Electronics a close second at 3.8%. Flex, Jabil, and Benchmark improved their GAAP operating margins from the prior quarter, while only Flex was able to boost its margins from a year earlier. As for the lone IFRS reporting company, Celestica saw its IFRS operating margin decrease from the prior quarter as well as from the year-ago period (Table 2).

On a sequential basis, GAAP net income for the five companies in Q4 grew faster than sales did. Their aggregate net income of \$303.2 million increased 73.1%, while sales went up 6.1%. Flex, Jabil, and Benchmark Electronics were responsible for the sequential increase in net income, as

they were the only GAAP companies whose bottom lines increased from Q3. On a year-over-year basis, GAAP net income declined 14% compared with a 4.3% decrease in revenue. Only two companies, Sanmina and Benchmark, succeeded in boosting their net income from a year earlier, whereas Jabil posted the biggest decrease in net income. Q4 net margin for the GAAP reporting companies was up 2.1%, up 80 basis points sequentially and down 30 basis points year over year.

For 2016, combined GAAP net income for the five companies was in line with their sales declines. Net income for the year decreased 40.5% to \$843.3 million, while sales dropped 4.8%. Only Benchmark was able to accomplish annual increases in GAAP net income.

New Venture Research (publisher of MMI) has recently entered into an exclusive partnership with one of the most recognized and widely used EMS executive search firms in the industry. As part of this trusted relationship, we can now offer our clients access to the top professional talent in the EMS industry. Simply contact the publisher to learn more and we would be happy to answer any questions and make a discrete introduction.

Tab	le 2:	Q4 and	2016	Resul	ts for	the Si	x Larg	est US	S-Trad	ed EN	1S Prov	iders	(M US\$ d	or %)

Company	4Q16 Sales	3Q16 Sales	Qtr.– Qtr. Chg.	4Q15 Sales	Yr.– Yr. Chg.	4Q16 Gross Marg.			4Q16 Oper. Marg.	3Q16 Oper. Marg.	4Q15 Oper. Marg.	4Q16 Net Inc.	3Q16 Net Inc.	4Q15 Net Inc.	2016 Sales	2015 Sales	Yr.– Yr. Chg.	2016 Net Inc.	2015 Net Inc.
Flex	6,115.0	6,008.5	1.8	6,763.2	-9.6	6.5%	4.9%	6.4%	2.7%	0.7%	2.2%	129.5	-2.5	148.9	22,228.6	24,597.8	-9.6	266.2	517.8
Jabil	5,104.9	4,430.8	15.2	5,208.0	-2.0	8.3%	7.1%	12.2%	3.9%	2.2%	4.1%	88.0	38.1	131.9	18,250.0	18,556.8	-1.7	210.2	343.0
Sanmina	1,720.0	1,665.8	3.3	1,534.7	12.1	7.7%	7.6%	8.0%	3.4%	3.4%	3.6%	44.9	100.8	27.1	6,666.4	6,238.1	6.9	205.6	381.8
Benchmark	574.3	579.3	-0.9	630.2	-8.9	8.6%	9.1%	8.6%	3.8%	3.7%	4.3%	21.7	12.7	20.6	2,328.6	2,624.7	-11.3	84.9	79.3
Plexus	653.1	667.6	-2.2	668.7	-2.3	9.4%	9.4%	8.9%	3.9%	4.9%	4.3%	19.1	26.1	23.9	2,556.0	2,654.3	-3.7	76.4	94.3
Subtotal/Avg	14,167.3	13,352.1	6.1	14,804.8	-4.3	9.9%	9.7%	10.2%	3.1%	1.8%	3.3%	303.2	175.1	352.4	52,029.6	54,671.7	-4.8	843.3	1,416.2
Celestica	1,623.7	1,554.0	4.5	1,514.9	7.2	6.7%	7.0%	6.5%	1.5%	3.3%	2.7%	20.9	53.6	12.1	6,016.5	5,639.2	6.7	136.3	66.9
Total/Avg.	15,791.0	14,906.1	5.9	16,319.7	-3.2										58,046.1	60,310.9	-3.8		

All results are based on GAAP except those of Celestica, which has adopted IFRS reporting. With the exception of sales, GAAP and IFRS results are not necessarily comparable. Flextronics' name has been changed to "Flex" officially.

Company News

Incap's New Indian Manufacturing Facility

The expansion of **Incap's** production premises in Tumkur was completed on schedule.

The expansion, which exceeds 2,000 square meters, will be available for full production by April 2017 after the finalization of ESD flooring. The construction costs were in line with the budget and amounted to approximately €1 million.

The production facilities are located in Tumkur, near Bangalore. The floor space including the expansion is 10,000 square meters and the number of personnel is about 450. The factory produces power supplies, inverters and UPSs, fuel dispensers, and electric actuators for valves, as well as other electronic products.

Inventec Expected to Appoint New Chairman and President

Inventec is planning to have Inventec Solar Energy chairman Tom Cho take over the chairman position of Inventec after current chairman Richard Lee retires. Inventec's president Huang Kuochun will also step down, and will be replaced by Maurice Wu, CEO of AIMobile, an Inventec joint venture company, according to DigiTimes.

Inventee declined to comment on the market speculation and said that the company's personnel changes will not be decided until the board of directors meeting at the end of March.

Lee has been Inventec's chairman for nine years.

Flex Expands Operations in **Poland**

Flex has laid the cornerstone of its new—and fourth—production facility in the Tczew industrial park in Poland.

With the new building, Flex's Polish operations will gain 11,000 square meters of space, of which 9,000 square meters

will account for manufacturing space; the rest will be devoted to storage, according to an update on the Invest in Pomerania website.

When the company first launched operations in Tczew, the company worked in one building and employed about 500 people. Today the company's workforce in the region is eight times bigger and the company is beginning to add its fourth building in Tczew, the update continues.

The new hall will be commissioned in 2H2017.

New iPhone to Enter Production Early, Say Sources

Makers in the iPhone supply chain will start delivering parts and components for production of the next-generation iPhone series later in the first quarter of 2017, earlier than the schedule in previous years, according to industry sources.

Apple has requested that its chip and component suppliers start trial production, inspection, and preparation of inventories for the new iPhone series earlier than usual, said the sources. Deliveries of chips and parts for the new models are expected to kick off in the second half of first-quarter 2017, the sources indicated.

KGI Securities analyst Ming-Chi Kuo believes Apple's upcoming iPhone range will include two iPhone 7S models and an iPhone 8 with OLED display. The devices are slated for launch in September 2017.

Sources at Taiwan-based suppliers involved in the production of the rumored iPhone 8 said that companies will start working on OLED panel bonding for the device around the end of the first quarter. Apple has also ordered sufficient OLED panels from Samsung Display, according to the sources.

In addition to an OLED screen, the iPhone 8 will come with wireless charging and iris-scanning technology, industry sources disclosed. Makers in the supply chain are generally optimistic about the popularity of the device, the sources said.

Apple is more active in placing chip orders for the 2017 iPhone series than for previous products, and has set more stringent inspection requirements for related chips, components, modules, and mechanical parts, according to sources at analog IC vendors.

New Wistron Plant in India to Be Captive to Apple

Wistron's planned assembly plant in India will be dedicated to building iPhones for **Apple**, according to a *Reuters* report.

The news service, citing a source familiar with the matter, added that finalization of the plans is pending the negotiation of how Apple will "repatriate" profits from local sales and exports.

Apple has been hounded by various governments about where it shelters its cash, which is part of the company's tax-avoidance strategy.

If plans are agreed to shortly, production could begin as soon as late April, a local government official said. However, the *Reuters* source said an agreement has yet to be signed.

A Wistron spokeswoman told *Reuters* that production is expected to begin in the first half of 2017, but declined to comment on customer names.

Kitron Receives Communications Order from Kongsberg

Kitron has received a NOK120 million (€13.5 million) order from **Kongsberg Defence Systems** for military communications equipment.

The equipment to be supplied is related to a contract for deliveries to Kongsberg's portfolio of projects in communications equipment.

Under this contract Kitron will supply various communications products, materials kits, technical services, and test equipment. Manufacturing and technical services will be provided by Kitron in Arendal. Deliveries will take place from 2017 to 2020.

SMTC Names Ed Smith Interim CEO

SMTC announced the appointment of Ed Smith as interim president and chief executive, effective February 17. Smith will also be elected to the board of directors.

Smith and outgoing president and CEO Sushil Dhiman will work together during a transition period beginning February 6.

Smith recently was senior vice president of Global Embedded Solutions at **Avnet** and had held various other positions with Avnet since 1994. From 2002 to 2004, he was president and chief executive of **SMTEK International**, a tier-two EMS manufacturer that was acquired by **CTS Corp.** in January 2005. He currently serves as chairman of the Electronic Components Industry Association.

LACROIX Electronics Names Weiss General Manager of German Facility

LACROIX Electronics announced the appointment of Mr. Frank Weiss as General Manager of its Willich, Germany facility, as of February 1.

Previously, Weiss held similar positions at Nordeon GmbH, GE Lighting GmbH, and Havells Sylvania GmbH. He brings long-standing experience of more than 25 years in the industrial sector, particularly in the areas of business development and site management.

His sales and marketing background as well as his knowledge of the industry will help LACROIX Electronics amplify its business in Germany and give a new impulse to the German plant.

With the aim of pursuing the Group's global strategy, Weiss will focus on consolidation of the Willich plant's position with its targeted markets and enhancement of customer satisfaction. He will also be in charge of building on synergies between electronics design services and manufacturing operations in order to offer complete and innovative solutions, from design to manufacturing.

Kontron Plans to Merge with S&T Deutschland Holding

Kontron has signed a letter of intent with S&T Deutschland Holding AG, a wholly owned subsidiary of the listed S&T AG, for a planned merger between Kontron AG and the nonlisted S&T Deutschland Holding AG.

The merger will be evaluated and prepared in the coming two months and then be submitted for decision to the annual general shareholder meetings of Kontron AG and S&T Deutschland Holding AG, which are both planned to take place no later than June 2017.

All Kontron shareholders who in the course of the merger do not accept the legal compulsory cash compensation offer of S&T Deutschland Holding AG are given the opportunity to finally exchange their Kontron shares for shares of S&T AG and a cash component. The noncash capital increase will be performed subsequent to the merger and is expected to be completed by autumn 2017.

Vexos Appoints Paul H. Jona as President & CEO

Vexos announced that David Buckley has resigned his position as President and CEO. The board of directors has appointed Paul Jona as the new President and CEO.

Jona joins Vexos with over 33 years of electronics industry experience, working as the CEO and Senior Executive at various electronics companies. Most recently, he served as Senior Vice President of the SATCOM division of **Cobham**, a producer of satellite terminals, radio communications equipment, and earth stations.

IKOR Among Top 10 EMS Providers in Europe

Spain-based electronics manufacturing services (EMS) provider **IKOR** has been ranked among the top 10 best companies providing complete services for the design and manufacture of electronic circuits in Europe for 2015.

The ranking, created by *Venture Outsource*, took the reputation of the providers into account in its criteria, which include depth and scope of management, available technology, manufacturing quality and factory cleanliness, responsiveness to changes in industry, and value as it relates to pricing.

First Electronics Buys Larger Building in AZ

First Electronics purchased land in Arizona, where it plans to build a new 35,100-square-foot building.

The EMS company invested \$3.5 million in the site, which is considerably larger than its existing facility in the Phoenix suburbs. Construction permitting is under way.

The electronics manufacturer plans to add a fourth production line when it moves in.

The firm is currently located in a 14,000-square-foot building in Tempe.

Kaifa Technology to Acquire Kingston Subsidiary Payton Technology

Kingston Technology Company, Inc. announced that its fully owned subsidiary, Payton Shenzhen Co., Ltd. (aka Payton Technology), will be acquired by Shenzhen Kaifa Technology Co., Ltd. (aka Kaifa Technology). Kaifa will assume a 100 percent equity stake in Payton. The agreement and transfer of equity will be complete once all of the relevant Chinese government agencies provide final approval.

The company will continue to operate as it has in the past and Kingston will continue to assist Payton in most major aspects of its business.

The deal allows Payton to expand its efforts into wider areas for semiconductor packaging and testing as the computer industry changes and expands in new directions. The agreement allows Payton to grow its business within China through attracting local customers and possible future capital injections. Both Kingston and Kaifa look forward to continuing their strong relationship once the agreement is complete.

Supply Base Consolidation Impacts Component Obsolescence

Component obsolescence has been a thorn in the side of electronics purchasers for decades, but some insiders say it is becoming more acute because of the consolidation in the electronics supply base, especially in semiconductors.

Consolidation is contributing to an increased rate of obsolescence, says Kristi Syndikus, vice president of global business services at **Celestica**, a Toronto-based electronics manufacturing services provider.

When an electronics supplier acquires another component supplier, the newly merged company often discontinues some of the product lines of the acquired company to eliminate product redundancy.

A higher rate of obsolescence may occur when large suppliers are involved in a merger. For example, **Freescale** merged with **NXP** and then last October **Qualcomm** purchased NXP for \$39 billion, the biggest acquisition ever in the semiconductor industry.

While obsolescence often impacts industries that have long product life cycles—for example, medical, communications, defense, and

aerospace—now it could also affect products with short life cycles such as smartphones and consumer electronics equipment. Such products are always being updated and redesigned by OEMs.

Some electronics manufacturers have developed obsolescence strategies involving homegrown software tools and electronics distributors.

Denis Secher, senior director of global component engineering at EMS provider **Sanmina**, says his company has developed predictive tools that enable the EMS provider "to see trends in semiconductor components a few years out."

Sanmina reviews a customer's approvedvendor lists (AVLs) and bills of materials (BOMs) for new products and "we let them know about components we see having risk of obsolescence prior to product launch," says Secher. "Customers often redesign the product using different chip sets based on the information we provide." Sanmina has also created "preferred partnerships with selected distributors," says Secher, in which

the distributors help Sanmina manage component obsolescence.

Jabil Circuit, an EMS provider based in St. Petersburg, Florida, uses its InControl system to help manage product obsolescence, says Graham Scott, Jabil's senior director of global commodity management.

InControl is a homegrown riskmanagement tool. One of its functions is to measure the risk of components going obsolete and keep track of end-of-life (EOL) notices that suppliers issue.

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