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Post-Recession Surge Not Foreseen

Although the latest forecasts from three market research firms call for single-digit growth in contract manufacturing sales (EMS + ODM) for 2009, their projections do not show a surge of growth two or even three years later (Table 1). If true, these forecasts imply that EMS industry growth will not spike after the current global downturn as it did coming out of the 2001-2002 tech crash.

In 2002, the *MMI* Top 50 EMS providers reported an aggregate sales decline of 4.4%. The next year, Top-50 growth improved to 7.5%, which was followed by growth spurt of 25.3% in 2004. That surge played into the EMS industry's mantra that tough economic times compel OEMs to outsource more. New outsourcing from OEMs chastened by the tech recession coupled with rekindled demand accelerated industry growth in 2004 as if a rubber band had been snapped.

But this time will be different if the three market forecasters hold sway.

IDC, iSuppli and TFI Quarterly Forum all project single-digit growth for contract manufacturing revenue in 2011 and 2012. Their growth predictions for 2011 range from 3.7% to 7.9%, with a composite average of 5.9% based on combined sales estimates (Table 1). Unfortunately, these numbers do not represent the growth surge that the industry might expect given Top-50 performance after the tech downturn of 2001-2002.

Firm	2007	2008	2009	2010	2011	2012	CAGR
IDC	\$266.5	\$291.3	\$314.0	\$339.4	\$366.4	\$393.8	8.1%
Yr.-yr. growth		9.3%	7.8%	8.1%	7.9%	7.5%	
iSuppli	\$308.1	\$315.2	\$322.2	\$331.5	\$343.7	\$360.0	3.2%*
Yr.-yr. growth*		2.3%	2.2%	2.9%	3.7%	4.7%	
TFI Quarterly Forum	\$240.0	\$255.1	\$258.5	\$263.0	\$279.0	\$299.9	4.6%
Yr.-yr. growth*		6.3%	1.3%	1.7%	6.1%	7.5%	
Average Combined	\$271.5	\$287.2	\$298.2	\$311.3	\$329.7	\$351.2	5.3%**
Yr.-yr. growth		5.8%	3.8%	4.4%	5.9%	6.5%	

Forecasts are by IDC, iSuppli and TFI Quarterly Forum.
*Supplied by MMI. **Based on average revenue for 2007 and 2012.

Moreover, none of these firms is projecting double-digit annual growth for contract manufacturing revenue in any year from 2008 through 2012. As a result, the compound annual growth rates (CAGRs) that they are forecasting for the period 2007 to 2012 are all single-digit numbers ranging from iSuppli's 3.2% to IDC's 8.1%. These forecasts suggest that contract manufacturing (EMS + ODM) will lose its billing as a double-digit growth busi-

ness for the foreseeable future. This point is driven home by a combined five-year CAGR of 5.3% based on average estimated revenue for 2007 and 2012 (Table 1).

The latest forecasts from the three market research firms show growth rates in 2009 ranging from 1.3% (TFI Quarterly Forum) to 7.8% (IDC), and the composite growth estimate for the year amounts to 3.8%. Compared with a combined estimate of 5.8% growth

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Forecasts

for 2008, the 2009 growth composite represents a dip of just two percentage points. But the not-so-good news is that the composite growth rate in 2011 and 2012 will barely exceed that in 2008 (Table 1, p. 1).

Nevertheless, the contract manufacturing market will exit the forecast period a significantly larger business than it is today. Three estimates of contract manufacturing revenue for 2008 average \$287.2 billion. In 2012, the average projection for this revenue rises to \$351.2 billion.

TFI Quarterly Forum lowers forecast

“This year’s numbers are down very, very significantly from last year’s forecast,” Matt Chanoff, TFI Quarterly Forum’s chief economist, told *MMI*. The quarterly forum in its base-case forecast now estimates that growth of contract manufacturing revenue will amount to 6.3% this year then slow to 1.3% in 2009. According to this forecast, growth in 2010 will be 1.7%, showing almost no improvement over 2009. Why isn’t the forum projecting that growth will spring back in 2010? Unsold housing inventory and overhanging debt are among the factors that will hold down an economic recovery once it begins, explained Chanoff.

In 2011, contract manufacturing growth will recover to 6.1% and exit the forecast period at 7.5% in 2012 (Table 1). The forum projects that contract manufacturing sales will increase from \$240.0 billion in 2007 to \$299.9 billion in 2012, for a CAGR of 4.6%.

This is the second time that TFI Quarterly Forum has revised its forecast downward in 2008. The forum finalized its previous forecast in mid October, and since then conditions have worsened. “Our numbers were based on a recession that was more severe than the 2001-2002 period, but not a great depression. Since then, things have been moving to the worst

Table 2: TFI Quarterly Forum's Base-Case Forecast of EMS and ODM Revenue (billions US\$)

	2007	2008	2009	2010	2011	2012	CAGR
TAM	\$1,269.3	\$1,315.9	\$1,309.3	\$1,306.1	\$1,350.2	\$1,422.1	2.3%
EMS	\$141.4	\$150.6	\$152.9	\$156.0	\$165.9	\$179.5	4.9%
ODM	\$98.6	\$104.5	\$105.6	\$107.0	\$113.1	\$120.4	4.1%
Total outsourcing	\$240.0	\$255.1	\$258.5	\$263.0	\$279.0	\$299.9	4.6%

Source: TFI Quarterly Forum

side,” said Chanoff.

After expanding by an estimated 6.5% in 2008, EMS revenue will show little growth over the next two years, according to the quarterly forum’s base-case forecast. The forum is projecting EMS growth of 1.5% in 2009, followed by 2.0% in 2010.

Chanoff does not see the EMS industry quickly bouncing back after the recession. He singled out two developments that will lead to slower growth following the recession. Unlike the last recession where companies could enter the EMS industry by leasing SMT lines, the barrier of entry now is much higher with the introduction of ODM-type services. “So there was a lot of rapid expansion” after the last recession, said Chanoff. “I don’t think that’s going to happen again.”

US government policy is expected to result in a second drag on growth. “The US government has borrowed so much money that we’ll see a lot of inflation, or we’ll see an attempt to quash it with very high interest rates,” he said.

Chanoff also believes that the recession will result in “a lot of consolidation.” In his view, during this tough stretch “companies that were barely staying afloat are not going to stay afloat. So you’re going to end up with a smaller industry in the number of companies.”

Over the period 2007 to 2012, the EMS industry will grow at a slightly faster rate than the ODM sector will, according to the forum’s forecast. The projected CAGR for the EMS side is 4.9%, compared with 4.1% for the ODMs (Table 2).

But these numbers do not tell the whole story. They hide a shift toward the ODM model, which has intensified in the current climate, said Chanoff. But because the forum classifies giant **Foxconn** as an EMS provider, the shift does not appear in the forum’s numbers.

Which segments will provide the most growth for the contract manufacturing market? “I think medical is probably going to be one of the best,” said Chanoff. Military-aerospace is a segment that industry companies have tagged for strong growth. “But I think that there are too many people jumping into that,” he said. “It’s a pretty tough market to crack. So I expect a lot of disappointment in that segment.”

In the communications segment, Chanoff finds massive changes underway that would lead to strong opportunities. “But those opportunities are going to be attenuated by the overall crisis,” he said. As examples, he listed fiber-to-the-home in Europe, open-source handsets acting as network terminals, and the infrastructure to support such handsets.

Although TFI Quarterly Forum’s forecast has EMS revenue growing at an unimpressive five-year rate of 4.9%, this rate is still more than twice the 2.3% CAGR expected for the total available market (Table 2). Growth rates have come down, but the EMS industry, fueled by continued outsourcing, is still projected to outgrow the TAM. In this forecast, the TAM will increase from \$1.27 trillion in 2007 to \$1.42 trillion in 2012.

In addition to the base-case forecast, the forum has prepared projections corresponding to three other

scenarios. One of them represents more outsourcing from OEMs that want to shrink their balances sheets. In addition, Japanese OEMs that have outsourced the least also face the issue of yen appreciation, Chanoff pointed out. In this case of greater outsourcing, the CAGR of the contract manufacturing market would rise to 6.0%.

A second scenario, the most pessimistic, rests on the argument that OEMs will reduce their manufacturing buys to cut costs and boost capacity utilization in their existing factories. In this scenario of less outsourcing, the contract manufacturing industry would take a bigger hit from the downturn, resulting in a CAGR of 0.8%. "That has not happened before with the big exception of the 2001 recession period," said Chanoff. "But that was unusual not only that it was a recession, but also that it was centered on the electronics industry, at least the telecom and software industries."

The third scenario takes into account that companies which are already 100% outsourced don't have the means to bring production in-house. They lack the flexibility to go up or down in their level of outsourcing. As a result, this case of minimal flexibility "would pretty much track with the underlying TAM," said Chanoff, and the scenario's CAGR of 2.5% would come close to the TAM's 2.3% rate.

IDC foresees tough environment for contract manufacturing

The contract manufacturing market (EMS + ODM) "is facing a much more difficult environment in the coming years," according to Michael Palma, senior research analyst for electronics manufacturing services and consumer device semiconductors at IDC. He believes that the current economic disruption will worsen, dragging down the growth of the outsourced manufacturing business.

IDC currently estimates that contract manufacturing revenue this year

will increase by 9.3%, down from a February forecast of 13.9%. Revenue growth for 2009 is now projected at 7.8%. IDC has also trimmed its forecast for contract manufacturers' CAGR over the period 2007 to 2012. The forecast now calls for a CAGR of 8.1%, 2.2 percentage points below IDC's February projection.

In its outlook, IDC expects the ODM sector to grow slightly faster than the EMS industry over the five-year period. Projected CAGR for the ODM sector is 8.7% compared with 7.8% for the EMS industry (Table 3). As a result, the EMS industry will lose a small amount of market share over the forecast period, according to IDC. In 2007, the EMS industry's share was an estimated 61.1%, and the firm projects that the EMS portion will end up at 60.1% in 2012.

IDC forecasts that annual EMS sales growth will dip from 7.7% in 2008 to 7.0% in 2009. The annual rate will then rise slightly the following year to 8.3% and remain at nearly that level through 2012. EMS industry revenue for 2008 will amount to \$175.1 billion, increasing to \$187.4 billion in 2009 and \$202.9 billion in 2010, according to IDC (Table 3).

Based on IDC's numbers, the ODM sector outgrew the EMS industry in 2007 by a wide margin, which is projected to narrow in 2008 and shrink again 2009. In the following three years, IDC foresees that annual growth rates for the EMS side will be slightly ahead of those for the ODM business (Table 3).

A number of assumptions underlie

the IDC forecast, and some are described here. The firm believes that the electronics industry will continue to outsource manufacturing, while outsourcing in lower-volume, higher-mix emerging segments will increase. Consolidation may take place as valuations decline and companies with weak value propositions loose contracts.

In addition, the balance of power will remain with OEMs, according to IDC. As lower priced products increase their share of the product mix, terms will be renegotiated favoring OEMs. In some higher-volume parts of the consumer market, some OEMs may take back design responsibilities. "The economic recovery may take several years," said IDC's Michael Palma. "During this period, new products may displace traditional EMS opportunities."

If the economy worsens beyond IDC's expectations, the impact on the contract manufacturing industry will be significant, according to Palma. To prepare contract manufacturers for this possibility, IDC worked up a worst-case scenario. In this scenario, annual growth rates of the contract manufacturing industry fall to 7.5% for 2008, 5.1% for 2009 and 6.6% for 2010, while the industry's CAGR slips to 6.9%. These annual growth rates represent declines of 20%, 34% and 18% for 2008, 2009 and 2010 respectively when compared with the rates currently forecasted. IDC is still evaluating how the worsening economy will be impacting the contract manufacturing market and foresees possible further downside risks to its forecast for the market.

	2007	2008	2009	2010	2011	2012	CAGR
EMS	\$162.7	\$175.1	\$187.4	\$202.9	\$219.6	\$236.5	7.8%
Yr.-yr. growth	12.9%	7.7%	7.0%	8.3%	8.2%	7.7%	
ODM	\$103.8	\$116.2	\$126.6	\$136.5	\$146.8	\$157.3	8.7%
Yr.-yr. growth	22.5%	11.9%	9.0%	7.8%	7.6%	7.1%	
Total	\$266.5	\$291.3	\$314.0	\$339.4	\$366.4	\$393.8	8.1%
Yr.-yr. growth	16.5%	9.3%	7.8%	8.1%	7.9%	7.5%	

Source: IDC

More forecasts revised

Another market research firm, iSuppli, has lowered projected annual growth rates for contract manufacturing revenue from forecasted rates announced in November. In iSuppli's latest forecast, annual growth in 2008 is now pegged at 2.3%, down from 8.3% previously estimated, while the increase in 2009 was lowered to 2.2% from the prior estimate of 6.1%. Annual rates for 2010 and 2011 were reduced to 2.9% and 3.7% respectively (Table 1, p. 1). According to iSuppli's outlook, year-to-year improvements in annual growth will be slight from 2009 onward, and annual growth will still be below 5% in 2012.

For the EMS industry, iSuppli's forecast offers little comfort. The firm projects that EMS revenue will increase from \$186.5 billion in 2007 to \$200.2 billion in 2012, equating to a five-year CAGR of just 1.4% (Table 4). There will be essentially no EMS sales growth in 2008, followed by two

	2007	2008	2009	2010	2011	2012
EMS	\$186.5	\$186.8	\$188.6	\$190.5	\$194.3	\$200.2
ODM	\$121.6	\$128.4	\$133.6	\$140.9	\$149.4	\$159.8
Total	\$308.1	\$315.2	\$322.2	\$331.5	\$343.7	\$360.0

Source: iSuppli.

years of 1% annual growth, according to this forecast. By 2012, the annual increase will only amount to 3%.

In the iSuppli forecast, the ODM sector will outgrow the EMS side. Starting at \$121.6 billion in 2007, ODM revenue is predicted to reach \$159.8 billion in 2012, resulting in a CAGR of 5.6%.

Electronic Trend Publications is yet another firm that issues forecasts for the contract manufacturing market. Although ETP does not undertake quarterly updates for its annual forecast, ETP agrees that its prior estimate of 17.3% growth for the contract manufacturing market this year will be unachievable (Aug., p. 2). Randall Sherman, the author of the ETP fore-

casts, now estimates that 2008 growth will be 10%.

Based on a recovery occurring in the third and fourth quarters of 2009, Sherman has made a best-guess projection wherein contract manufacturing sales will grow by 8.4% in the new year. His 2009 outlook calls for EMS revenue to expand at 9.2%, largely as a result of strength in tiers 2, 3 and 4, while the ODM side will grow at 7.5%. Sherman foresees that in 2009 growth from large ODMs in the computer, cell phone and consumer electronics sectors will decline. In 2009, the EMS and ODM markets will reach \$218 billion and \$172 billion respectively, yielding a total contract manufacturing business of \$390 billion.

Market View

Insourcing Not a Threat, Says Jabil's CEO

Although outsourcing has given rise to an industry with over \$250 billion in sales, its polar opposite, insourcing, has recently gained notoriety after spending years in the scrap heap of outmoded strategies. Insourcing, which is an anathema to the EMS industry, is popping up in discussions because it may offer some OEMs a quick fix in their efforts to cope with the financial pressures of the global downturn. By pulling production back in-house, OEMs increase their asset utilization while they reduce their spending on external manufacturing.

At **Jabil Circuit**, two customers have taken the insourcing route, and one of them is **Nokia**, a well-known customer in Jabil's mobility sector.

During the company's earnings conference call this month, Jabil reported that Nokia has decided to insource engine assembly.

But Tim Main, Jabil's president and CEO, does not see insourcing as posing a danger for Jabil. "First of all, I'd say insourcing is not a threat," he told analysts on the conference call. Main described the two customers as "a couple of isolated cases." Out of a customer total estimated by Main at 80 or 90, "two is not a big number," he said. "One of them has a big name. But in terms of how important those product lines are to our overall profitability and the health of the company, it's really not as material.

"Even in this environment, I would say that the real trend is that we are seeing more opportunity come towards us and more vertically integrated OEMs approaching us right now to engage in a dialogue about how to move them from their vertical assets

into an outsource model. So that trend is already started," said Main.

He did admit that typically at the start of a recession, "several customers might be a little bit conflicted about their manufacturing strategy to pull a couple of things inside." But Main added, "That will be overwhelmed by the number of customers that will engage in new outsourcing initiatives, and eventually even these customers that end up pulling production back inside will have increasing difficulty justifying their manufacturing investment."

Main estimated that Jabil is looking at a pipeline of opportunities worth \$2 billion to \$2.5 billion, which he said "is actually really good. And a pretty good percentage of that are vertically integrated OEMs looking to move into the outsourcing space and taking this opportunity in terms of slower economic activity to do what they may have planned for a long time." The

opportunity is “to take a rationalization charge on their side, shut down factories and move their production into more efficient manufacturers like Jabil,” he added.

“I think that will be a very pronounced trend particularly as we get into later fiscal '09. So about mid '09, I think you'll see a great deal of activity that will overwhelm the isolated instances where an OEM is pulling stuff inside,” said Main.

He described the two insourcing cases as “generally relatively marginal business and business that we tend not to put a great deal of emphasis on anyways because we hate being in a position where we're competing with our customer's internal capacity.”

Despite what has appeared on the Internet, **Alcatel-Lucent** is not becom-

ing a poster boy for insourcing. *MMI* has learned that Alcatel-Lucent is not reversing its manufacturing strategy. The company, which uses three main EMS providers, continues to keep around 50% of its production in-house.

For those with long memories, insourcing harkens back to the early days of the EMS industry when OEMs primarily used contract manufacturers to take the overflow from OEM plants. When demand fell, OEMs would pull production back inside their facilities as would be done under today's concept of insourcing. It is ironic that while the early form of contract manufacturing has been discredited and supplanted by strategic outsourcing, an important characteristic of that early form remains an option that at least a few OEMs are considering.

that's quite underserved by the EMS industry. And we think we're somewhat uniquely positioned to be able to really have success here,” said Dean Foate, Plexus president and CEO, during the company's earnings conference call in October.

Another practitioner of diversification 2.0 is **Flextronics**. A vivid example of Flextronics' broadening of its industrial segment is a portable worker lift that the provider is building for **JLG Industries** (May, p. 6). Here is another product that does not fit the standard definition of an EMS program. For Flextronics, this program achieves two aims: further diversify industrial product categories and utilize the company's vertical capabilities in machining and plastics. This new business is also desirable for another reason. There “tends to be a little less competition out there for it. So hopefully, we'll be able to drive a little bit better margin,” Flextronics CEO Mike McNamara told analysts in April. McNamara said the company views the industrial sector as “a market that continues to diversify us away from the more traditional electronic manufacturing services product categories.”

During Flextronics Analyst Day in November, the company reported that a significant portfolio expansion in its industrial segment has taken place in the current fiscal year. By expanding into more and more product areas, Flextronics has been able to more than offset softness in many of its base product categories in the segment.

Solar is an area that Flextronics and other large providers have added to their portfolios. **Jabil Circuit** is the latest provider to gain a foothold in the solar industry (see News, p. 8). It also an area that can be subdivided, taking diversification a step further. Flextronics has shown that the solar market opportunity can be split at least five ways: solar capital equipment, PV (photovoltaic) module assembly and manufacturing, PV component assem-

Market Trend

EMS Boundaries Being Stretched by Diversification 2.0

Diversification has been a battle cry within the EMS industry in recent years, and if anything the call for this strategy will grow even louder in the current downturn. But no longer is diversification merely the act of pursuing business in a nontraditional sector. Indeed, the handful of nontraditional segments – principally industrial, instrumentation, medical, automotive and military-aerospace – are by now so well-known by the industry that they can hardly be described as unconventional. Diversification has entered a new phase in which providers are seeking to broaden their business portfolios within a segment. Call it diversification 2.0. In this pursuit of fresh product areas, some providers are stretching the definition of what constitutes an EMS program.

Take **Plexus**. The company recently won a new program in the provid-

er's industrial/commercial sector to produce a complex, mechatronics product. Currently forecasted to deliver about \$30 million of revenue, this program could potentially result in a new top-five customer for Plexus if things go the company's way. The program represents the second significant mechatronics win for Plexus since the company decided to pursue opportunities in this space.

Building mechatronics is not usually thought of as belonging in an EMS provider's bailiwick. Mechatronics is a field that combines mechanical and electronic systems, where complex mechanical operations are controlled by computer. Compared with a typical EMS product, the mechanical components of a mechatronics device represent a greater portion of the assembly. Here an EMS provider will not only assemble the electronic controls for a mechatronics product but also its numerous mechanical parts.

Given Plexus' engineering capabilities for this kind of product, “we feel quite strongly about the possibility of Plexus growing our business substantially in this market. We think it's one

bly, photovoltaic concentrators, and balance-of-system products. Most if not all of these subcategories would not have been associated with the EMS industry, say, two years ago.

Mechatronics and solar are two major examples in the industrial segment where diversification 2.0 is remaking the boundaries of the EMS industry. A mechanical product such as a worker lift may not fit even a stretched definition of an EMS program, but it does show the lengths to which one provider will go in an effort to diversify. Diversification 2.0 within the industrial segment and other nontraditional areas is turning up opportunities, particularly finished products, where SMT assembly is no longer the main ingredient.

News

Sony To Outsource More

In response to sudden and rapid changes in the global economy, Japan's **Sony** said this month that it will use EMS and ODM partners as part of an effort to achieve a 10% reduction in the number of its electronics manufacturing sites, now at 57. The company has set a completion date of March 31, 2010.

The Sony announcement raises hopes within the outsourcing business that other Japanese OEMs under the same economic pressure will follow Sony's lead. Japanese OEMs that remain vertically integrated in large part are said to represent the world's biggest pool of outsourcing potential.

Sony intends to cease production at two overseas sites by the March 2009 end of its current fiscal year. One is a technology center in France, which manufactures tape and other recording media. The other is a Westmoreland, PA, facility primarily engaged in LCD TV production, repair service and logistics.

Realignment of domestic and over-

seas manufacturing sites is among the measures announced by Sony to improve profitability and enhance operational efficiencies in its electronics business, where Sony has been most affected by the acute downturn in the economic climate. Under another initiative, the company plans to reduce the employee count in the electronics business by about 8,000, or 5% of a total of about 160,000 as of Sept. 30. These cuts do not include seasonal and temporary workers, whose numbers will also shrink.

Plant closures will be carried out through outsourcing to EMS and ODM companies as well as by other means including rationalizing manufacturing operations and shifting and aggregating manufacturing to low-cost areas.

Manufacturing at the Pennsylvania site will stop by the end of February 2009, with repair and logistics winding down by March 2010. Sony said its remaining North American TV manufacturing centers in Baja, Mexico, will be able to handle anticipated demand in the region for the foreseeable future.

For the first half of Sony's fiscal year, its electronics business accounted for sales of \$27.0 billion out of a corporate total of \$39.0 billion.

Flextronics (Singapore) recently disclosed that it is manufacturing TVs for Sony (Nov., p. 7). Also, **Hon Hai Precision Industry** (Tucheng City, Taiwan) reportedly bought 120 pieces of equipment from Sony Manufacturing Systems earlier this year (Sept., p. 6).

Creation Acquires California Provider

Privately held **Creation Technologies** (Burnaby, BC, Canada) has expanded its California operations with the acquisition of EMS provider **ProWorks** of Santa Clara, CA. The purchase price was not disclosed.

According to Creation, the acquisi-

tion strengthens its footprint in California and on the West Coast of North America by offering greater regional capabilities.

The main driver behind this deal was Creation's desire for a larger California facility close to its existing San Jose site, whose lease was up. "We wanted to move into a bigger facility. But then we also had the opportunity to acquire. And when ProWorks came up, it just was a great match," said Deborah Gillies, Creation's director of marketing.

Creation will move its San Jose operation into ProWorks' facility starting in January 2009. That facility consists of two buildings totaling 50,000 ft² in Santa Clara. The merged operations will employ about 275 people and support some 35 customers. Bill Moradkhan, ProWorks' president and CEO, will lead the combined business unit.

Earlier this year, ProWorks entered into an agreement to lease a 42,000-ft² facility in Sriperumbudur, India (July, p. 7). Creation is not sure whether it will go ahead with the India facility. "We don't have to make that decision until the end of first quarter 2009," Gillies told *MMI*.

Although Creation operates US facilities in six states, its US footprint is not complete. "Our strategic initiative says that we should have something in the Northeast and potentially something in the Southeast," she said. In addition, Creation is still looking at Mexico, which the company believes should be part of its North American footprint. "But the truth is, when we look for something, we really look carefully at culture and customer base. And we've yet to find anything in Mexico that is a good enough fit for us," said Gillies.

Established in 2001, ProWorks traces its roots in contract manufacturing to a former EMS company called **PCB Assembly**, which was acquired by Flextronics in 2000. ProWorks' ownership group and a large percent-

age of its employees come from PCB Assembly, according to ProWorks' website.

ProWorks has developed a set of web-based analysis and visibility tools for access to supply chain and factory floor information through Haven, a branded web portal.

This deal marks Creation's eighth acquisition in the past five years and its third in 2008. In September, the company announced the twofold purchase of **Circuit Service** and its Chinese subsidiary (Sept., p. 6). With the addition of ProWorks, Creation employs about 2,400 people and operates 11 manufacturing facilities in the US, Canada and China. The company positions itself as among the top ten EMS providers in North America.

LaBarge Buys Pensar

LaBarge (St. Louis, MO), a publicly held EMS company, has purchased **Pensar Electronic Solutions**, an EMS provider in Appleton, WI, for about \$45 million. The price is subject to some post-closing adjustments.

"The addition of Pensar has several important advantages for LaBarge. First, it adds more than \$55 million in annual sales. Second, it further diversifies LaBarge's sales mix, adding new customers and new markets. And thirdly, it greatly expands our presence in the medical and industrial sectors," said the company's president and CEO, Craig LaBarge, during a conference call with analysts.

He reported that Pensar will generate 2008 revenue of about \$55 million. Of this total, the industrial and medical segments will account for about 41% and 36% respectively. Among Pensar's customers are **Smiths Medical**, **Cardinal Health**, **Miller Electric** and **Thermo Fisher**. Described as profitable, Pensar provides design and manufacturing services in the low-to-moderate volume, high-mix segment of the EMS industry. According to

Pensar's website, the company operates out of a 75,000-ft² facility in Appleton.

LaBarge (the company) expects the acquisition to be modestly accretive to LaBarge's earnings in the second half of the current fiscal year (ending June 28, 2009) and much more so in fiscal 2010.

"We believe that LaBarge's broader capabilities provide opportunities to further penetrate Pensar's customer base as well as expand it," said Craig LaBarge. His organization also sees opportunities where Pensar customers may have capped the amount of business they do with Pensar because of its size.

Pensar's management and employees are expected to stay on. GM David Steel, who formerly served as Pensar's president, will oversee the Appleton plant, which will begin operating immediately under the name LaBarge.

According to CEO LaBarge, the purchase price for Pensar is in the neighborhood of six times 2008 EBITDA. The acquisition was financed with senior debt through **U.S. Bank** and **Wells Fargo Bank**.

In 2003, Pensar's existing management team along with some outside investors bought the Pensar operation from **SMTC**, which had acquired it in 2000. Since 2003, Pensar's sales and earnings have grown at a compound annual rate of about 28%.

Despite the economic difficulties projected for next year, LaBarge is forecasting that Pensar's revenue will increase in calendar 2009.

NOTE Expands in Norway

Publicly held **NOTE** (Danderyd, Sweden) has increased its presence in Norway through the acquisition of **Norteam Electronics** (Oslo, Norway), an electronics manufacturer that specializes in the early stages of the product life cycle. NOTE presented the

acquisition as a way to increase sales in the Norwegian market and as a further step in its Nearsourcing strategy. Under this strategy, customers can use a nearby NOTE location for NPI activities.

Norteam's main area of business is focused on services such as prototyping and short-run manufacturing. The Norwegian company has annual sales of about NOK 50 million (\$7.1 million) and employs 40 people. It has an established position in the Norwegian market, according to NOTE, and will be run in close cooperation with NOTE Oslo. Björn Furu, president of NOTE Oslo, will also manage the acquired operation.

NOTE is planning that in 2009 Norteam will contribute positively to NOTE's turnover and profit.

Neways To Gain Parts of Bosch Unit

Last month, **Neways Electronics International**, based in Son, the Netherlands, signed a letter of intent to acquire parts of the activities of **Bosch Security Systems**, a subsidiary of the **Bosch-Group**. Publicly held Neways intends to pursue these activities in its role as a preferred supplier to Bosch.

The intended transaction includes the transfer about 40 full-time employees of the Bosch plant in Breda, the Netherlands, to the Neways Advanced Applications subsidiary in Son. These employees specialize in the development, engineering and production of systems for communication. The acquisition will also include the transfer of limited quantities of fixed assets and inventory.

According to Neways, the acquisition will expand substantially its activities in the area of communication and data security. What's more, these activities are low in cyclical behavior and will therefore contribute to a more balanced portfolio of Neways' business.

News

This prospective deal is expected to be accretive to earnings from the start.

Meanwhile, Germany's **Rheinmetall Landsysteme** has awarded Neways a seven-year order, valued at around 10 million euros, for the supply of complex cable systems used within a new armored wheeled vehicle for the Dutch and Germany armies.

More new business... **Day4 Energy** (Burnaby, BC, Canada), a developer and manufacturer of solar (photovoltaic) modules, and **Jabil Circuit** (St. Petersburg FL) have entered into a long-term contract, whereby Jabil will produce Day4 Energy's modules for residential and commercial applications. The agreement also calls for Jabil to purchase from Day4 certain equipment required for module manufacturing. . . . **Nujira** (Cambridge, UK) has selected **Sanmina-SCI** (San Jose, CA) as its worldwide manufacturing partner to support Nujira's sales to major OEMs in the wireless infrastructure business. Sanmina-SCI will produce Nujira's High Accuracy Tracking modulator, a module that serves as the key component of Nujira's technology for improving the efficiency of RF power amplifiers for base stations and broadcast transmitters. . . . Through a strategic alliance with **Silicon Graphics** (Sunnyvale,

CA), **Benchmark Electronics** (Angleton, TX) helped create NASA's new Pleiades system, ranked as the third fastest supercomputer in the world. Benchmark provided NPI services, PCB assembly, chassis build and functional test for the program. . . . **SMTC** (Toronto, Canada) has expanded its relationship with **Crestron Electronics**, a supplier of integrated solutions to control audio, video, computer, IP and environmental systems. Additional Crestron products will be transferred to SMTC facilities in Toronto and Mexico.

Some financial news from Jabil... For Jabil's fiscal Q1 ended Nov. 30, sales totaled \$3.38 billion, slightly below the low end of guidance, which was \$3.40 billion. Sales were virtually flat compared with the year-earlier quarter. Core operating margin for the November quarter was 3.0%, down from 3.2% in the prior quarter and 3.6% in the year-ago period. Core EPS of \$0.30 held steady quarter to quarter but was off by 17% year over year. GAAP results that were termed preliminary are subject to the outcome of a goodwill impairment analysis. Jabil expects fiscal Q2 revenue in a range of \$2.8 billion to \$3.0 billion and core EPS in a range of \$0.12 to \$0.16. The company expects

to have about \$750 million in cash at the end of fiscal Q2.

UK investment... **Connor Solutions** (Houghton-le-Spring, UK), billed as the UK's second largest privately owned EMS provider, has made a £2-million investment that includes the replacement of all SMT production lines and the enhancement of the company's existing through-hole technology.

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