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Mother Nature Strikes Again

A second natural disaster has befallen the EMS industry in less than a year. With Japan's earthquake and tsunami still a fresh memory, the industry must now face the worst flooding in Thailand more than 50 years.

Much has already been made of impact that the floods will have on the disk drive industry in Thailand. Both of **Western Digital's** manufacturing locations in Thailand have been flooded, compromising hard drive production that represented about 60% of the company's hard drive output in the quarter ended July 1. Western Digital is the world's largest hard drive manufacturer by volume, according to **IHS iSuppli**. Water has also entered Thailand facilities of **Toshiba**, the fourth largest hard drive maker. Of equal concern are the local component suppliers that feed the disk drive industry in Thailand.

Flextronics is one of the EMS providers that are monitoring the situation in Thailand. "I think the implications could be significant," said Flextronics CEO Mike McNamara during the company's earnings conference call this month. "We have to watch it. I don't think we know the answer. I don't think we'll see it this quarter, because typically there's enough inventory in the supply chain to go two to three months. The question is what happens in the March quarter." Flextronics, of course, is worried most about the supply of drives and disk

drive components and intends to work with a particular customer on this issue.

But there are EMS providers with more pressing concerns because they have operations in Thailand. Indeed, **MMI** has identified four publicly held providers that have reported flooding impacts. Take **Benchmark Electronics**. Flood waters have inundated Benchmark's campus in Ayutthaya. The company has begun utilizing capacity in the Asia Pacific region, including restarting its Korat, Thailand, facility to support the transfer of customer production. Benchmark expects that the flooding of its Ayutthaya facility will have a significant impact on its revenues and operations for "the next couple of quarters." The company plans to resume full support of customer demand in Q1 2012.

Benchmark expects to bring the Thai facility back to full production ramp in January 2012. The facility represents around 20 to 25% of the

company's revenue.

Thailand-based **SVI** has been forced to temporarily suspend all operations at Bangkadi Industrial Park in Pathum Thani province just north of Bangkok. Severe flooding within the park exceeded the company's flood preparations. As a result, the company's operations were affected. SVI has begun to set up operations and will resume production at its Chaeng Watana facility. The company anticipates that it can deliver products to its customers by the end of November.

Also in Pathum Thani, flood waters have infiltrated the offices and manufacturing floor space of **Fabrinet's** Chokchai campus. The company had taken precautionary measures, where possible, to move or protect production and test equipment, inventory and tooling. Fabrinet has not yet been able to make a full assessment of the damage but believes it is unlikely that production would restart at Chokchai for the remainder of the current quarter.

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Flooding has not breached the company's Pinehurst campus, located about seven miles north of Chokchai. However, production at the Pinehurst campus remains suspended due to the floods' impact on local roads and utilities.

Cal-Comp Electronics has six EMS factories split between two provinces in Thailand, but only the operations of its plastics subsidiary **Avaplas**

in Ayutthaya have temporarily halted, according to company statements to The Stock Exchange of Thailand. The industrial park where Avaplas is located remains closed. Cal-Comp estimated that flood damage to the subsidiary's equipment and inventory will not amount to more than about \$3.5 million. The company pointed out that Avaplas contributes less than 1% of total sales. Meanwhile, Cal-Comp re-

ported that its "factories are safely under control without impact by the flood incident."

Celestica's facility in Chonburi province also remains unaffected as it is not within a flooded area. During the company's earnings call this month, Celestica said it has seen only some nominal impacts to the facility's supply chain and is pretty confident that it can work through them.

Inventory

The Perils of the Outsourced Balance Sheet

Use of a new metric called inventory asset productivity shows that the transfer of inventory from OEM ledgers to EMS balance sheets has come at a huge cost to the profitability of EMS industry.

Inventory asset productivity (IAP) is a measure of gross margin dollars generated per inventory dollar. When plotted for an OEM group from 1996 to 2010, IAP doubles in value from a 1996 baseline. Yet when graphed over the same period for an EMS group, the metric declines by more than 50%. (See chart.) Each industry group proxy represents at least 25% of its respective side of the global EMS market.

Why are these OEMs able to increase the gross profit productivity of their inventory by a factor of two, while the productivity of the EMS inventory drops by more than half? It all comes down to the outsourcing of the balance sheet, according to **Riverwood Solutions** (Menlo Park, CA), a provider of consulting and managed operations services and the creator of the IAP metric. As the EMS industry has taken on more and more OEM inventory, that inventory has become less and less profitable for the industry.

What's more, if the EMS industry could maintain the same inventory

productivity that it achieved in 1996, the industry would free up \$6.38 billion in *annual* costs that are now wasted, Riverwood estimates.

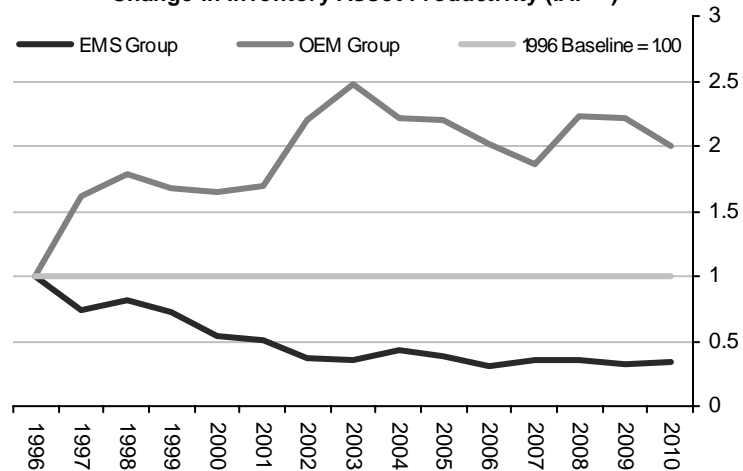
OEMs that are solely focused on reducing unit prices paid to their EMS providers miss the opportunity to capture cost savings from such a potentially large source. In some cases, "OEMs have become so decoupled from manufacturing that they don't even understand the intricacies of the processes that drive these materials. And they don't really get paid to worry about it," said Ron Keith, CEO of Riverwood Solutions.

But the cost reductions that *are* tied to OEM pay plans have become harder and harder to obtain. "We're getting to a point where there are almost no more dollars to come out of the ex-works unit price, and yet there are still all these inefficiencies. They're hard to

grab because it requires that both parties to the transaction be a little more open, a little more honest and collaborate with each other to capture these savings. It's just fascinating to watch people scrapping over pennies when there's an unattended hundred dollar bill sitting on the table," said Keith.

A recent survey conducted by Riverwood sheds light on why EMS providers aren't more efficient with their inventory. The company asked around 30 EMS industry executives worldwide to give the top two reasons why their inventory doesn't turn faster. As a first or second choice, all of them said they were under increasing contractual pressure to carry more inventory for their customers. The other top reason cited was a widespread overdriving of demand. "In general, there's this sense that 80 or 85% of their customers systematically overdrive de-

Change in Inventory Asset Productivity (IAP™)



Source: Riverwood Solutions

mand,” said Keith.

To illustrate this demand inflation, he spoke as if he were a hypothetical OEM VP of worldwide procurement. “If I leave demand on the table, and I don’t ship everything that we’ve sold for the quarter, somebody is going to give me a hard time about my job performance. So I’d rather see somebody else’s balance sheet, for which I’m not responsible, underperform than hear my boss give me a hard time about only shipping 90 when we had orders for 100,” said Keith reflecting the position of the OEM VP.

“The risk of having too much inventory is now on the side of the EMS guy, and the reward, when it works out, . . . accrues on the OEM side,” he noted.

Inventory buildup in the EMS industry is no small matter, and, with overdriving, much of the growth is excessive. “The inventories growth on the EMS books for the most part is not specifically designed to provide improved supply chain response time and reduce lead times for OEMs. Rather, it is an extraordinarily broad basket of material that represents a 15 to 20% increase in everything across the board,” said Keith.

Excess inventory comes with associated costs that mount up. Riverwood estimates that inventory-related costs in the electronics world average 17 cents a year for every dollar of inventory held. Included in this figure are the costs of storage, counting, financing, obsolescence and depreciation. Interestingly, depreciation is the largest contributor, and it reflects the fact that in general components and electronic materials grow cheaper over time.

But EMS providers cannot tell customers that they are ordering too much and that production will be based on a more realistic schedule. “One, it’s not appropriate. Two, it’s not contractually allowed,” said Keith. “But there’s no good way to fix it because the EMS

providers by and large haven’t found the negotiating power and the discipline to push that back and make it stop.”

Is the situation hopeless? Maybe not, if one program’s success can be replicated. According to Keith, one of the larger EMS companies is building 400 different assemblies in lots of 50 to 100 for a particular telecom customer. When asked what he thought the inventory turns for this low-volume, high-mix program were, Keith guessed 4.5 or 5. That’s in line with industry norms. But the inventory turns on this account are actually 17, a game changing result.

This customer worked closely with its EMS provider and the provider’s suppliers to take inventory out of the system, rather than shift inventory from the OEM’s books to someone else’s, Keith explained. The OEM is located in an Asian country where there is more collaboration with the supply base. New to outsourcing, this company has a history in manufacturing, an advantage when it comes to understanding the dynamics of supply chain inventory.

Of course, it would be unrealistic to expect that the entire EMS industry could come anywhere close to 17 turns. “But if you increased turns a couple of times, you’d be taking billions of dollars a year out of the cost of the system,” said Keith. “And then the EMS providers and the OEMs can decide how to slice up that newly found pie.”

Still, when EMS providers and OEMs are at odds, there can be no discussion of the money wasted on inventory. “The EMS companies need to educate the OEMs. At the same time, . . . the relationships can become so contentious that nobody listens to the other side. The OEMs are sure that the EMS companies are just trying to claw back more money, and the EMS providers don’t really want to talk to the OEMs,” said Keith. That’s because the

EMS providers are afraid that their customers will take the opportunity to ask for another cost reduction, he added.

If OEMs would listen, they would realize that loading up their providers with too much inventory actually discourages them from pursuing activities that improve schedule flexibility. “If EMS companies today were not saddled with all of this inventory, they would be more willing to take on thoughtfully designed buffer inventory programs that actually have a greater impact on OEM schedule flexibility,” said Keith. “Plus, many EMS providers tend to resist schedule push-outs and cuts from their OEMs as much as possible because they don’t want to expand their bloated inventories even more.”

Results

Some Quarterly Results in Brief

Celestica. Q3 sales totaled \$1.83 billion, which were flat versus the prior quarter but up 18% year over year. Non-IFRS EPS of \$0.26 ticked down by one cent, or 4%, sequentially but increased by 44% year over year. Both sales and non-IFRS EPS fell within the company’s guidance. IFRS net earnings in Q3 amounted to \$50.2 million, compared with \$45.7 million in Q2 and \$21.3 million in the year-earlier period. Q3 net earnings represented the company’s highest net profit since Q3 2007.

Sales from the diversified end markets of industrial, aerospace and defense, healthcare and green technology grew 26% sequentially and 55% year over year. The diversified markets represented 16% of sales in Q3, up from 13% in Q2. Celestica’s goal is to obtain 25% to 30% of its revenue from diversified markets and expects them to account for about 18% of sales by the end of Q4. On a sequential basis,

Q3 revenue was flat in the consumer and storage segments, increased in the enterprise communications segment, and declined in the telecom and servers segments. Compared with the year-earlier quarter, revenue rose in the consumer, enterprise communications, servers and storage segments by 27%, 22%, 20% and 6% respectively, while telecom business dropped by 27%.

Non-IFRS gross margin for Q3 came in at 7.1%, unchanged from the prior quarter and down 10 basis points from the year-ago period. Non-IFRS operating margin was 3.7%, in line with the company's target of 3.5% to 4%. The operating margin was flat versus Q2's level but 60 basis points higher than a year earlier.

For Q4, Celestica expects revenue of \$1.70 billion to \$1.85 billion and non-IFRS EPS of \$0.23 to \$0.29. At the midpoint of guidance, sales would be down by about 3% sequentially, though non-IFRS operating margin would be about 3.7%, consistent with Q3. The company anticipates that demand will be down sequentially in Q4 across its traditional markets, offset slightly by growth of about 10% in its diversified markets.

Flextronics. In its fiscal Q2 ended Sept. 30, the company generated sales of \$8.04 billion, up 7% sequentially and 8% year over year. Non-GAAP EPS of \$0.22 rose 5% sequentially but declined by 4% year over year. Sales came in just above the quarter's guidance range of \$7.6 billion to \$8.0 billion, while non-GAAP EPS was within guidance of \$0.21 to \$0.23. GAAP net income of \$130 million was down 2% sequentially and 10% year over year.

Three out of the company's four business groups grew sequentially and year over year. The exception was Industrial and Emerging Industries, whose sales fell by 17% sequentially and 4% year over year. The group's greater-than-expected sequential decline was driven by broad-based weakness, and making the greatest impact

was a more than 40% drop in the capital equipment business, which focuses on both the semiconductor and solar industries. With a quarter-to-quarter gain of 15%, High Velocity Systems drove the majority of the company's sequential growth. Year-over-year growth for the segment was 8%. Integrated Network Solutions grew 7% sequentially and 9% year over year, while High Reliability Solutions increased its business 3% sequentially and 32% year over year.

Non-GAAP gross margin for the September quarter was 4.7%, down 60 basis points sequentially and 70 basis points year over year. Non-GAAP operating margin came in at 2.2%, down 40 basis points sequentially and 70 basis points year over year. This operating margin was dragged down by Flextronics' ODM PC business (about -50 basis points), a large drop in sales from the higher margin segment Industrial and Emerging Industries (about -20 basis points), and one-time restructuring costs (about -15 basis points). The company is accelerating its exit from the ODM PC business and will be out of it during the December quarter. Flextronics' components business broke even overall during the September quarter, and the company still has a goal of reaching a 4% operating margin for the business by the end of fiscal 2012.

For the December quarter, Flextronics expects revenue of \$7.3 billion to \$7.7 billion, which includes a sequential reduction of about \$550 million associated with the accelerated exit from the ODM PC business. At the midpoint of guidance, revenue would decline by 7% sequentially. Guidance also calls for non-GAAP EPS of \$0.18 to \$0.22, including a cost of about \$0.06 for the exit from the ODM PC business.

Jabil Circuit. For its fiscal Q4 ended Aug. 31, the company reported sales of \$4.28 billion, up 1% sequentially and 11% year over year. Non-

GAAP EPS of \$0.62 grew by 7% sequentially and 19% year over year. Sales came in near the high end of fiscal Q3 guidance of \$4.1 billion to \$4.3 billion, while non-GAAP EPS surpassed Q3 guidance of \$0.52 to \$0.60. In the August quarter, the company earned GAAP net income of \$114.3 million versus \$104.7 million for the May quarter and \$58.7 million for the same period a year ago.

Non-GAAP operating income for the August quarter amounted to \$187.2 million, up 5% sequentially and 19% year over year. Non-GAAP operating margin was 4.4%, 20 basis points above the prior quarter's level and 30 basis points higher than a year earlier.

Representing 40% of total revenue, Jabil's Diversified Manufacturing Services segment grew 10% sequentially and 35% year over year. The DMS segment's non-GAAP operating margin came in at 6.7%, an improvement of 50 basis points from the prior quarter. Revenue from the company's Enterprise & Infrastructure segment rose 1% sequentially and 10% year over year. Non-GAAP operating margin in the E&I segment was 2.6%, down from the prior quarter's 3.9% primarily due to restructuring of Italian operations, which resulted in charges of about \$8 million. Business in Jabil's High Velocity segment declined by 9% sequentially, less than the company's earlier projection of 13%, while the year-over-year decrease was 11%. Here, non-GAAP operating margin equaled 3.1%, up 90 basis points from the May quarter as a result of lean initiatives and a more favorable revenue mix.

For Jabil's fiscal 2011, sales totaled \$16.52 billion, representing a 23% increase. Non-GAAP operating income grew by 46%, while non-GAAP EPS climbed 54%.

Guidance for Q1 fiscal 2012 (the November quarter) includes revenue of \$4.3 billion to \$4.5 billion and non-GAAP EPS of \$0.62 to \$0.70. At the

midpoint of each range, the year-over-year increase would be the same – 8%. On a sequential basis, Jabil expects the DMS and High Velocity segments to grow by 3% and 6% respectively and the E&I business to remain consistent.

News

US Expansions

Despite the doldrums of the US economy, three more EMS providers have undertaken expansion projects in the US. **OEM Worldwide** has broken ground for a 50,000-ft² addition in Watertown, SD. The building expansion is the first phase of an \$11-million project to take place during the next four years.

“The new space will double our system-build and warehousing capacity,” said president and CEO Mike McCammack. “During the next four years we will also upgrade and replace our automated printed circuit board assembly equipment, which will increase our current manufacturing capacity and prepare us for entry into new markets.”

OEM plans to continue to grow in the medical and industrial areas, two of the three markets served by the high-mix, low-to-medium volume provider. (The company does business in the communications sector as well.) In addition, OEM anticipates expanding into the military/aerospace and smart grid markets. McCammack said the company will add up to 150 new jobs as its business grows.

The Midwestern provider, which did not experience a downturn in its business during the recession, has seen double-digit growth this year. Karen Yuccas, OEM’s VP of business development, noted that “60 to 70% of our business is box build. Our commitment to quality and technology has helped us achieve this.”

OEM is an **Everett Smith Group** company.

Another EMS provider has launched a major expansion in the San

Francisco Bay area. **Sonic Manufacturing Technologies** has opened a second facility in Fremont, CA, increasing its capacity to 108,000 ft² with 10 SMT lines.

“We are pleased to offer this additional manufacturing capability to our customers, including the option for them to ‘backshore.’ With the rising costs in Asia and the declining dollar, we are now competing head-to-head and winning,” said Ken Raab, CEO of Sonic. “And with 10 **Fuji** surface mount lines, all product mixes and volumes can be considered for local manufacturing.”

Privately owned Sonic presents itself as one of the largest EMS providers on the US West Coast.

In the third case, **Delta Group Electronics** (Albuquerque, NM) has completed construction of a 37,000-ft² assembly facility in Fayetteville, AR. The new building will allow the company to significantly expand its workforce and provide the technology and space to meet the needs of its customers located throughout the Midsouth region of the US.

Delta Group entered the region in 2008 by acquiring **Bitworks**, an EMS operation in Prairie Grove, AR. Plans are to move the Prairie Grove operation to the new, significantly larger building in Fayetteville.

Within Delta Group, there are five assembly operations in the US.

Organic expansions in the US have been announced recently by other providers including, in alphabetical order, **Distron** (Attleboro Falls, MA), **Dynamic Manufacturing** (Freeport, PA), **OnCore Manufacturing Services** (San Jose, CA), **PPI-Time Zero** (Paterson, NJ) and **Spectral Response** (Lawrenceville, GA).

Expansion in Mexico... **Cal-Comp USA**, a division of **New Kinpo Group** (Taipei, Taiwan), recently purchased a 125,000-ft² manufacturing facility in Reynosa, Mexico, to expand Cal-

Comp’s operations there in a major way. The new facility will be operated by **Cal-Comp de Mexico**, a newly established subsidiary, and is expected to employ about 500 people within two to three years. Cal-Comp will move equipment and 70 employees from a maquiladora factory in Reynosa, obtained with the 2010 acquisition of **Spectrographics**, to the new facility as well as hire about 75 additional employees before the end of the year. The impetus for this expansion came from a US customer of New Kinpo Group in the set-top box business. NKG has been manufacturing the customer’s STBs in China and Thailand, but after evaluating the full cost of product ownership vis-à-vis the North American market, the customer requested that production be relocated from Asia to Mexico....In July, **Celestica** (Toronto, Canada) added 2,000 new jobs in Monterrey, Mexico, according to Marca Pais – Imagen de Mexico, an initiative promoting a positive image of Mexico.

Mexico deal done... Through a subsidiary, **Hon Hai Precision Industry** (Tucheng City, Taiwan) has acquired **Cisco Systems’** set-top box manufacturing facility in Juarez, Mexico, for \$44.9 million (July, p. 7).

Another Hon Hai investment... According to published reports, Hon Hai has signed an agreement with the city of Jincheng in China’s Shanxi province to establish a precision manufacturing base in the city. Investment will reportedly total 100 billion yuan (\$15.7 billion), although it is unclear how much of it will come out of Hon Hai’s pocket.

New business in Brazil... In December, Hon Hai will start manufacturing **Apple** iPads in Jundiá, Brazil, *Reuters* reported. Located in Sao Paulo state, the Jundiá factory is under construction and will be Hon Hai’s fifth plant

in Brazil, *AFP* reported....**Microsoft** has tapped **Flextronics** (Singapore) to manufacture Xbox 360 game consoles in Manaus, Brazil, according to a translated announcement obtained from an Xbox forum posting.

Other new business... Hon Hai has landed orders to produce the next design of **Amazon's** Kindle Fire tablet, reported *Digitimes*, citing unnamed Taiwan-based manufacturers....**Flextronics** and **Huawei**, have expanded their relationship to include services such as reverse logistics and config-

ure-to-order provided by Flextronics in Hungary. During Flextronics' October earnings call, CEO Mike McNamara said that the new Huawei business in Hungary was "a direct outcome" of **Elcoteq's** bankruptcy filing (see Last Word). China, India, Brazil and Mexico are the other countries where the two companies partner.

...**Prim'Tools**, which is located in Hong Kong, has chosen **SMTC** (Markham, Ontario, Canada) to provide a complete turnkey manufacturing solution for a new generation of laser measurement equipment used in the

construction industry. Services for this program include board-level assembly and testing, which will take place in Dongguan, China. The Dongguan factory is the result of an agreement between **SMTC** and **Alco Electronics** (Hong Kong).

Plant closure... **Suntron** (Phoenix, AZ) has announced that it will close its Sugar Land, TX, facility once customer production is transferred to other locations in 2012. The company said this action completes the repositioning it began in late 2009.

Last Word

Tracing Elcoteq's Troubles

This month, **Elcoteq** was declared bankrupt by a court in Luxembourg, where it is domiciled. Bank accounts frozen by its revolving credit facility lenders left the company unable to pay its suppliers or collect from its customers. The bankruptcy of Elcoteq is quite possibly the EMS industry's largest failure. As competitive as the EMS industry is, EMS companies generally do not like to see bankruptcies because they reflect badly on the industry. They also have the potential to undermine customer confidence in the industry. The failure of a global EMS provider such as Elcoteq could provoke customers to start asking questions. The obvious one would be: If a company the size and scale of Elcoteq could go bankrupt, is there a chance that other large providers could go under? *MMI* contends that the failure of Elcoteq can be traced to causes that set Elcoteq apart from its large competitors. Therefore, *MMI* believes that other large players are not vulnerable in the way Elcoteq was.

The immediate cause for the company's demise was its inability to secure long-term financing. Earlier this year, Elcoteq had signed a term sheet for a revolving credit facility from a Hungarian bank. The new credit facili-

ty would have playing an essential role in the refinancing of the company, but the new facility never came through. A proposed equity and debt investment by a California-based private equity firm also fell through. With Elcoteq unable to repay its revolving credit facility lenders, they went after Elcoteq's bank accounts.

But one could argue that the seeds of Elcoteq's failure were sown as far back as 2004. That's when Elcoteq divested its industrial electronics business to focus on communications technology customers. Not only did the company buck the industry trend of market diversification, it sold off a business in what would become a highly desirable segment. That business, which turned into the independent EMS provider **Enics**, went from sales of about 127 million euros in 2003 to 317 million euros in 2010. Elcoteq gave up the opportunity to participate in a growth business that also includes medical customers in return for the ability to put all of its eggs in the communications technology basket.

This communications focus, *MMI* believes, would ultimately contribute to the company's undoing. In 2007, Terminal Products accounted for 79% of Elcoteq's sales, with mobile phones and their components comprising the lion's share of the segment at 69% of

company revenue. The remainder of the company's business came from the Communications Networks area. Elcoteq had become one of the industry's largest contract manufacturers of cell phones. But that year orders from **Nokia**, then Elcoteq's largest customer, fell well short of forecasts. This unexpected shortfall in orders was a major cause of the company's operating loss that year.

In 2008, Elcoteq's deliveries to Nokia continued to decline. Sales in Personal Communications, a new label representing mobile phones and their components, dropped by 556 million euros, while total sales fell by 600 million euros, or 15%. The company reported an operating loss for 2008, though smaller than the prior year's loss. At the end of 2008, Elcoteq's net debt had increased by 65% from a year earlier to 238.5 million euros, as the company consumed 99.7 million euros of free cash flow. This negative cash flow reflected unusually high inventory levels, and Elcoteq singled out the overly optimistic forecasts of a mobile phone customer as one cause of the excess inventory.

At 65% of total sales, Personal Communications remained Elcoteq's largest business area by far. Indeed, Elcoteq declared that despite the conditions in the EMS market that year the company was able to hold on to its

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share as the third largest EMS provider in the mobile phone space.

To its credit, Elcoteq saw the need to grow sales outside its traditional activities in mobile phones and communication networks, and by 2008 had introduced a new sales category, Home Communications, including two key areas, set-top boxes and flat-screen TV work. Sales in this segment had grown to 15% of the company's total in 2008. But compared with the strategies followed by some of its large competitors, this was a more of a baby step than a full stride into diversification. After all, in the new segment the company was still chasing consumer-oriented, high-volume programs akin to its mobile phone business.

The recession year of 2009 took its toll on Elcoteq. Sales of 1.5 billion euros fell by 56% due the combined effect of an overall drop in demand and the company's weak balance sheet. With credit hard to come by, OEMs placed greater emphasis on choosing providers with strong balance sheets. Elcoteq's lack of financing capacity prevented it from capitalizing on all the business opportunities that were available. By the end of 2009, the company had a 100-million euro credit facility that was fully drawn. When the credit facility was renewed in November 2009, facility lenders withheld Elcoteq collateral, preventing the company from using accounts receivable financing. Elcoteq later claimed that the terms of the facility were unreasonable and that it would not have agreed to them under normal circumstances. But at that time, the company had no other sources of financing available due to the financial crisis and the radical changes in its customer base.

Elcoteq's restructuring efforts were unable to fully compensate for the steep drop in 2009 sales. The provider sustained an operating loss 76.5 million euros (including one-time charges of 37 million euros), compared with a

loss of 20.4 million euros the year before. At the end of 2009, Elcoteq employed 10,101 people, down from 18,830 a year earlier.

During Q3 2009, the company combined its Personal Communications and Home Communications business units into a Consumer Electronics unit, while Communications Networks became Systems Solutions. The Consumer Electronics unit accounted for 75% of 2009 sales. Most large EMS providers would be aghast at the prospect of such a heavy dependence on one segment.

For 2010, sales were down again, dropping by 29% from the prior year to 1.07 billion euros. But Elcoteq narrowed its operating loss to 18.1 million euros from the prior year's loss of 76.5 million euros and reported a profitable second half. Through an effort to strengthen its balance sheet, Elcoteq reduced its net debt to 12.6 million euros from 187.5 million euros the year before, and free cash flow was positive for the second year in a row. However, the company was disappointed by a major customer, **Sharp**, which stopped placing orders for its KIN smartphone. Elcoteq won various new customers during the year, but a lack of financing capacity again kept Elcoteq from absorbing all the business opportunities available in the market.

A new organization went into effect in October 2010. Elcoteq divided its business into two business segments, EMS and AMS (aftermarket services). The EMS business unit would seek to diversify into new segments while focusing on value-added services rather than high material content. More value-add would mean higher margins. In consumer electronics, Elcoteq would aim to shift some business from turnkey to consignment. Carving out a separate AMS unit was consistent with what some other larger providers had done as AMS business offered growth potential at higher margins than EMS

programs typically command. Elcoteq was now bent on expanding and balancing its customer base to decrease impact of any single customer or program on the company's business. The company set a goal such that by 2013 no customer would represent more than one third of total sales. By providing a full scope of life cycle services, with special emphasis on growing AMS, the company aimed to stabilize its manufacturing business.

But at the end of 2010, Elcoteq's credit facility was still fully drawn, albeit at a reduced level of 73.5 million euros, and the company was in need of long-term financing. During the first half of 2011, Elcoteq signed a term sheet with a Hungarian bank for a revolving credit facility of 100 million euros geared to export volumes from the company's subsidiary in Hungary. The company was also in separate negotiations for new credit facilities and new equity or an equivalent investment. Unfortunately, a final agreement with the Hungarian bank was never reached. Nor did the other negotiations solve the financing problem by June 30, 2011, when the existing revolver reached maturity. As a result, the company remained in a state of tight liquidity, unable to repay the 48.5 million euros owed under the revolver once it expired.

Still, Elcoteq had not yet run out of options. On June 30, the company signed a nonbinding term sheet with **Platinum Equity**, a California private equity firm, for a major equity and debt investment. The investment required Elcoteq's revolving credit facility lenders and other main lenders to agree on restructuring the company's debt. But the credit facility lenders had other ideas. In July, they started enforcement actions against the company that included blocking company bank accounts and seizing customer payments. That was the beginning of the end for Elcoteq.

In an attempt to buy time for Plati-

Last Word

num Equity and keep operations running, Elcoteq applied for controlled management on July 22 under the laws of Luxembourg. But given the lenders' actions against Elcoteq, the equity firm ended its evaluation of a potential investment in the company. Due to a lack of funding, Elcoteq's Finnish subsidiaries filed for bankruptcy on Aug. 31, and with payment transactions blocked, Elcoteq Network, which handled purchasing and invoicing in Europe, followed suit on Sept. 20.

During the final months, Elcoteq and its key customers had entered into discussions with the revolving credit facility lenders in an effort to save the company. Elcoteq and the customers proposed a recovery plan that was rejected by the lenders, who required customers to waive their rights and increase their exposure, according to Elcoteq. The lenders continued to freeze company bank accounts and prevent payable and receivable transactions, leaving Elcoteq unable to continue its operations. In that state, the company was forced to file for bankruptcy on Oct. 6 and the next day was declared bankrupt by a Luxembourg court. Assets of the parent company and its Elcoteq Network subsidiary are now under the control of a bankruptcy administrator in Luxembourg.

Tracing Elcoteq's troubles shows that its failure cannot be attributed to a

single cause. Elcoteq's dependence on the mobile phone sector in general and Nokia particular was largely responsible for the sales declines in 2007 and 2008. In 2008, net debt increased by 65%, as Elcoteq financed excess inventory, a major portion of which resulted from the overly optimistic forecasts of a mobile phone customer.

The recession exacerbated Elcoteq's problems. While demand fell, the company's weak balance sheet contributed to the sharp decline in the company's 2009 sales as prospective customers were looking elsewhere for providers in a strong financial position. A lack of financing capacity was evident in the provider's fully drawn revolver at the end of 2009. This need for long-term financing would also plague Elcoteq after the recession and would ultimately lead to the triggering of enforcement actions by the credit facility lenders.

Elcoteq posted operating losses four years in a row from 2007 to 2010. For most of that time, the company was largely dependent on high-volume, low-margin consumer electronics type business. *MMI* believes that there is a correlation between the operating losses sustained and the type of business Elcoteq sought. The company's 2010 strategy focusing on higher value add, greater diversification and a more balanced customer base was a good

plan, but it was adopted too late to make a difference.

Elcoteq suffered from a lack of diversification in both its markets and customer mix and a lack of financing capacity. These are not problems that one would associate with today's large providers.

Still, Elcoteq could have been more diversified if it had kept its industrial electronics business instead of selling it in 2004. Would Elcoteq have turned out differently? It's too bad one cannot jump into a parallel universe to find out.

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