

Tax Barriers Choking Industry?

With the optimism of the new year still lingering in the air, I thought it fitting to point to an issue Canada's hi-tech industry might focus on over the next 12 months.

Our story begins with a report from a market research firm in Dublin, Ireland. With a higher proportion of the population online than the U.S., and broadband penetration and affordability that rivals other developed countries, the firm, Research and Markets, describes Canada as "an online powerhouse." Encouraging words for industry, I thought.

Then researchers astutely ask: "Why has e-commerce been so slow to take off?" Untapped online opportunities, the report says, include a mobile network community that is not prepared to supply reliable data services at competitive prices.

"Social, technical and commercial obstacles threaten to hold Canada back when the country should be setting online standards for North America and the world," the report concludes.

How could this be, I wondered. All this potential and no one chasing it down? Where are all those enthusiastic, deep-pocketed investors that used to court our hi-tech innovators and entrepreneurs?

Maybe Deloitte knows. The financial consulting firm recently conducted a global survey on venture capital funding and came up with some startling conclusions. For instance, *Global Trends in Venture Capital 2007* revealed that 40 percent of U.S. respondents and 28 percent of global respondents cite Canada's unfavourable tax environment as a key reason for not investing in Canadian companies. "This level of concern is five times higher than for any other country in the survey and reflects the current investment crisis within Canada's venture capital industry," the report says.

Deloitte goes on to list specific taxation impediments: Withholding and Section 116 certificate process — The overwhelming majority of foreign VCs are not subject to Canadian tax when they sell an investment, but face a delay of many months to work through the Section 116 tax clearance process until funds can freely flow to them.

Requirement to file Canadian tax returns by foreigners who don't owe taxes creates hundreds of pages of unnecessary paperwork — Canada continues to impose tax filing requirements in circumstances where no taxes are payable by these investors.

Barriers to liquidity also affect Canadian investors — It is also critical to defer the taxes incurred by

Canadian investors when a Canadian company they have invested in is sold to a foreign company, and when no cash proceeds are paid to the investor.

Given current conditions in the electronics industry it's easy to imagine why VCs would rather not endure an unwieldy tax structure like Canada's. What will become of our "online powerhouse"?

"The outlook for the Canadian venture capital industry is bleak given its ecosystem is broken and there is no immediate solution at hand. The Canadian government and the domestic VC community must join forces to bring the industry back from the brink of collapse," says Deloitte.

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Advisory Board Brief

Manufacturing Behind The Great Wall: What Works, What Doesn't

By Michel Jullian, President, OCM Manufacturing

Fuelled by a desire to take advantage of the booming Chinese manufacturing industry and the promise of significant cost reductions, electronic component producers are increasingly transitioning their manufacturing operations to China. Not all manufacturers, however, are reaping the immediate rewards that they had anticipated — a reality that numerous high-profile recalls of consumer products manufactured in China have recently underlined.

At OCM Manufacturing, we've helped a number of small and mid-size companies move portions of their manufacturing processes to China and have learned what works - and seen what doesn't - when transitioning manufacturing functions to China.

First and foremost, we've learned that, before a company even considers outsourcing its product to China, it must ensure that the product is thoroughly prepared, documented and stable. One should not underestimate the work involved in troubleshooting a minor problem when thousands of kilometers and a foreign language stand between the company and its production line. Too many companies rush products into Chinese production only to discover problems after production has begun. A North American company might learn of a design flaw or component issue in its product only after a significant run has left the factory.

Properly specified products with working prototypes and complete documentation are required to avoid incorrectly manufactured components and production stoppages that can quickly eliminate any anticipated cost savings.

Manufacturers must also carefully consider the volume of goods they're looking to produce and whether their run sizes are appropriate for Chinese manufacturing. Based on our observations, product volumes of at least several thousand units per month are the requisite to reap the cost savings of outsourced manufacturing. Savings accrue as the number of units produced increases, so companies should look at manufacturing those items whose volume is expected to scale over time.

While every company likes to believe that demand for its product will increase, a critical eye is needed to ensure that it moves only those products expected to see an increase in production to China. For example, while it might be tempting to consider transitioning a product at the end of its lifecycle to a Chinese manufac-

turer to reduce costs, our experience shows that it is through increased production over time that North American manufacturers see the benefits of their move to China.

Because anticipated margins may come to fruition only after some time and an increase in production volumes, an early-adopter business model can often work well for small and mid-size companies with hopes of moving production to China. Beginning with lower-volume production for a niche market that is willing to pay a premium for the product can provide a useful proving ground for the technology and the market. This approach can also help to finance off-shore production in the period prior to high-volume demand.

Lastly, and perhaps most importantly, companies need to do their homework before selecting Chinese suppliers and labour, as well as throughout the term of the relationship. It's easy to perform online searches and discover Asia-based brokers or suppliers who will beat any price. But, when choosing a manufacturing partner in

China, a simple online search will not cut it.

In North America, it's common to submit an RFQ to three or four manufacturers and make a selection based on the proposals received. On our continent, you can be reasonably assured that each supplier follows standard business practices and you're likely to receive proposals that can be easily compared to one another. In China, however, this is not always the case. The range of suppliers and their supply capabilities vary widely, and the supplier you are in contact with could actually be an agent for several manufacturers. It is not uncommon for North American companies to believe that they are dealing with a specific manufacturer only to discover later that their products were in fact being produced by another entity (or multiple entities) altogether.

The only way to properly select a Chinese supplier is to perform due diligence and make an in-person visit. Meeting with factory owners, inspecting their facilities and validating their suppliers should be core aspects of a company's business model in China. At OCM, we do this — at least once per year — on behalf of our clients to ensure that the production process is transparent and undertaken with a trusted overseas partner.



'Meeting with factory owners, inspecting their facilities and validating their suppliers should be core aspects of a company's business model in China.'

Technology and Returnable Asset Management

By Mark Borkowski

Some of the lessons learned from financial investigations have resulted in major corporations implementing much more stringent accounting, accountability and governance standards.

In the U.S., The Sarbanes-Oxley Act of 2002 requires management of a public company to include in its annual report a statement on the effectiveness of a company's internal control over financial reporting. Canada, Australia and Japan, along with a number of other countries have similar requirements.

The company's independent auditor must also attest to, and report on, management's assertion regarding financial controls.

Companies with large dollar value capital assets must effectively track those assets to ensure accurate balance sheets and income statements. The electronics industry is known for having high value capital assets that need tracking on a constant and precise basis.

I spoke to Peter Kastner who is the president of Vestigo Corp., an inventory management services company in Guelph, Ont. He says, "This can be a particular issue with a fleet of returnable shipping assets, for example totes, tanks or cages. Without an asset track, trace and control system in place, public companies that manage supply chains or asset inventories open themselves to Sarbanes-Oxley liability if error-prone processes lead to significant misstatements of asset inventory positions." This can trigger a significant

accounting and governance exposure if the balance sheet carries a financially material fleet of returnable assets, which can't be verified as to existence or location.

The customs authorities of the NAFTA countries require a voluntary self-assessment or declaration on any importation that may be subject to duties or taxes. This may raise a disclosure obligation on the repatriation of returnable shipping assets that have been outside their country of ownership for more than 365 days.

An information technology driven solution, for tracking returnable assets, that incorporates the Internet and enabled by media such as electronic file transfer, RFID or bar code can be a major step towards controlling and securing critical assets during their entire lifecycle. Unlike a GPS location application, the 'track, trace and control' solution necessarily includes not only each asset's most recent location but also a permanently archived history or 'passport' from the date the asset was acquired.

Kastner mentions that while a track, trace and control solution can help with internal and external audit requirements, regulatory compliance and international trade requirements it will drive up the overall cost effectiveness of the returnable fleet.

Some of the management benefits you should also expect from an automated track, trace and control system can be derived from a focus on event-triggered exception or smart reports. This should address potential trouble areas of fleet performance such as stranded assets, excessive dwell or transit times or inordinately high damage. Another benefit would be the ability to sort or rank customer or supplier locations from 'first to worst' in terms of the returnable fleet performance while under customer or supplier control. The routine flagging of returnable assets that are due for maintenance or testing and certification will avoid loading outbound product into an inappropriate returnable that can't be shipped.

Kastner believes that the system will improve return on assets (ROA) by increasing the velocity and utilization of returnables, which can be tracked and measured.

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MINIATURE PUSHBUTTON SWITCHES

NKK Switches announced it has reduced the cost of its MB2000 and MB2400 series miniature pushbuttons, making the company's portfolio of electromechanical switches available for low-cost designs. The MB2000 series of miniature pushbuttons is available in single pole, double pole, and four pole, double throw configurations, and offer engineers the flexibility to choose between both momentary and alternate action circuits. The MB2000 series is designed with an over center actuator mechanism that diminishes sparking and increases operating life in AC circuits. Guide interlocked actuator blocks are precision-manufactured and prevent window locking while maintaining correct plunger alignment – assuring contact reliability.

www.nkkswitches.com

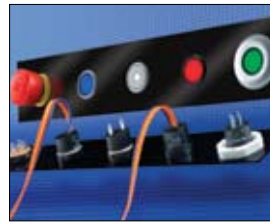
EMBEDDED SWITCHES

GE Fanuc Embedded Systems announced the Neterity line of embedded switches. The OpenWare switch management environment is portable across switch fabrics and processor environments, is easy to customize using the familiar Linux command line interface and is designed to make selected GE Fanuc Embedded Systems Neterity switches easy to deploy and easy to manage. OpenWare will be available on new members of the Neterity family, and progressively made available on existing family members. Also announced are the first Neterity/OpenWare family products: the RM921, RM922RC and CP921RC Gigabit Ethernet switches.

www.gefanucembedded.com

(NEMA 4&13) standards. This protection against the penetration of dust and moisture allows for use in applications of hazardous environments. The range mounts flush to the panel by utilizing a 22.5mm mounting hole. Design features include lenses available in anodized aluminum with illumination windows, or with plastic surrounds.

www.eaoswitch.com



SAFETY INTERLOCK SWITCHES

Omron Scientific Technologies Inc. introduces two hinge-operated safety interlock switches suited for use on smaller guard doors. The HP2008 series is a compact 25mm (0.98 in.) wide x 85.5mm (3.37 in.) long, while the HP2011 series features a slim 25mm (0.98 in.) x 115.5mm (4.55 in.) profile. Both are quick and easy to install, and can be mounted on square tubing as small as 1 inch in width. These switches are available in solid or hollow shaft versions and provide force guided contacts with tamper-resistant operation. A NEMA 6 enclosure enables them to withstand water washdown cleaning while providing a minimum of four million actuations on small swinging guard doors.

www.sti.com

LOW PROFILE SWITCHES

EAO offers an extremely low profile range of durably rugged switches and indicators. The series 84 range features a minimally low back-of-panel depth thus making them suitable for applications where space is restricted. Plus, being just 2.0mm above the front panel, these units complement any contemporary control panel used in both industrial and commercial applications. Series 84 products benefit from sealing ratings of IP67

CIRCUIT PROTECTION

Very fast-acting, medium slow-blow & slow-blow, approved by UL, CSA, CCC, PSE. Very small size; only 2.4x7mm, which largely saves the design space of electronics products. Also, Hollyland have other products such as Radial Lead Micro Fuse (f8x8.5mm), SMD Fuse (Nano, 1206, 0603), and Power fuse (aR, aM, gG) which are compliant with international safety approvals. All their products are RoHS compliant.

www.dblectro.com



CRASH TEST ACCELEROMETER

Endevco Corp. has introduced the model 7285 piezoresistive accelerometer for vehicle crash, crush zone and impact testing. With a weight of less than 1 gram and a 2000 g full-scale range, the 7285 is designed specifically to meet the challenging performance requirements of automotive safety customers. The Endevco model 7285 utilizes a high-output, micro-machined, monolithic sensing element which features integrated mechanical stops to deliver rugged, reliable and trusted measurement data for crash test applications. With a frequency response of 0-4000 Hz, extending down to dc (steady state acceleration), it is ideal for measuring long duration transient shocks.

www.endevco.com

Continued from pg. 6

Case in Point

Terrapin Communications Inc. of Ottawa wanted to produce its Safety Turtle bracelet - a child's bracelet that contains an alarm that sounds when placed in water. It turned to its long-time manufacturing partner, OCM Manufacturing.

OCM worked closely with its overseas partner in Zhuhai China to assess the financial model for producing the bracelet off-shore. OCM also worked closely with Terrapin to ensure the product's design was optimized to take best advantage of the cost savings that Chinese production can offer. Thorough documentation on the product's manufacturing specifications was prepared and, to ensure quality control, OCM specified that parts could not be substituted under any circumstances (a frequent problem with off-shore manufacturing).

Prior to transitioning Terrapin's production to its Chinese operations, OCM visited its Chinese partner's facilities and those of the suppliers that would be involved in the Safety Turtle's supply chain. Face-to-face meetings build trust between the parties and allow OCM to ensure that the partner fully understands the manufacturing requirements and any special instructions.

OCM also makes yearly visits to China to ensure that premises and processes for all its activities there remain on par with expectations.



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