TECHNOLOGY

BEST BUSINESS: MANUFACTURING

Giving clients the insight they need

By Leslie Faughnan

Padraig Henry, director of IT, SerCom Solutions

Now more than 30 years in business in electronics manufacturing sector, Irish company SerCom Solutions has grown rapidly in recent years as a leading provider of integrated supply chain and manufacturing solutions to global markets. It has some of the world's leading ICT brands on its books and operates facilities in Dublin and Limerick, Poland, China, Mexico and the US.

"One of the key factors in our success has been our investment in very smart SCM systems, based on SAP with a high level of in-house development over recent years," said Kevin Vaughan, group head of business development.

"Our clients are continually pushing to gain visibility into every as aspect of their business, from sourcing of materials and manufacture to the retail shelf and even the end customer feedback.

"We can deliver that information as part of controlling their total supply chains according to each customer's specific market strategy and business rules or policies, from component order and delivery to point of sale data fed back into the system."

SerCom Solutions has developed a specific Supply Chain Toolkit for its clients to use in optimising their procurement spending, with cost reductions of up to 32 per cent proven in some instances.

"We are happy to boast that we can successfully integrate our SAP-based system with any enterprise software in use by our clients," said Padraig Henry, director of IT. "We then manage their supply chains according to a huge range of specific requirements.

Kevin Vaughan, group head of business development, SerCom Solutions

"Companies in mobile phones and games often require the final software upgrade to take place at the latest stage before customer delivery, for example, and for many types of product we undertake the localisation at a late stage and closer to the target geography."

All clients want clear visibility of their supply chain, he said, and SerCom systems offer what he called "a graphic equaliser" type of control indicating that the flow of goods is in balance along the chain.

"All of the variables are seen and controlled in real time, which is invaluable for them in view of the speed with which planners and buyers have to make decisions in global manufacturing," said Henry.

Elaine Laird, supply chain manager in Logitech Services Ireland and Steve O'Sullivan, European logistics manager working with the OEM market

Keeping the supply chain moving

By Leslie Faughnan

One of the longest established international names in the Irish electronics industry, renowned PC peripherals and accessories brand Logitech set up manufacturing in Cork in 1988. It now operates its supply chain management, demand planning and trade customer support from the Cork base.

"Most of our products today come from original design manufacturers in Asia, and they are high volume items, so shipping to Europe is by sea, and there is a six-week transport time," said Elaine Laird, supply chain manager in Logitech Services Ireland.

Distribution around Europe is based around a hub in the Netherlands, with others in Poland and the Czech Republic serving some major OEM plants and 18 other shipping locations.

Managing that average ten-week demand planning and supply chain cycle is a core responsibility in Logitech, which has major customers like Dell for which it is in turn a critical supplier.

"We use an Oracle system as the basic platform, but we have some very smart add-ons for advanced demand planning and statistical forecasting," said Laird

The systems are highly automated, according to Steve O'Sullivan, European logistics manager working with the OEM market.

"Human intervention is really only required for decisions about exceptional events," O'Sullivan said. "Shipping delays could be a major issue, while any sign of an unusually high pull rate in a location raises a warning. Not being able to meet a product demand is the major kind of failure in supply chain."

The Logitech systems incorporate the specific requirements of each customer.

"With our larger customers we have more or less a unique virtual supply chain for each, right down to different labelling and packaging as well as all of their product and geography variations," he said. "The links between our systems are dynamic, so that they can see their own supply chain picture from us at any point in time. Orders and instructions are exchanged automatically between systems, through EDI or direct links."

Recognising the key role of SCM, Logitech is unusual in that the IT-strong team are all generalists and can exchange roles at a minute's notice.

"Each of us can take responsibility for the full circle of the company's SCM," Laird said. "We believe this is a way to give more strength in-depth to the service."

Getting Access to smart ERP systems

Craig Such, director of manufacturing and supply chain in Europe with Access Accounts

By Leslie Faughnan

Global manufacturing poses challenges to all enterprise systems, including enterprise resource planning (ERP) and financials, not least because goods cross borders with customs and other regulations to cope with as well as currency changes.

"In recent years, ERP has extended and upgraded throughout the enterprise and is the key administrative complement to supply chain management," said Craig Such, director of manufacturing and supply chain in Europe with Access Accounts.

Compliance with Customs regulations and electronic submissions to EU and national authorities are part of the invisible but critical administration that supports today's international supply chains.

"With goods in bond, for example, there is no duty because they are essentially in transit between origin and market," Such said. "But to take best advantage of such regimes means being consistent and accurate at all times, so the processes have to work alongside the supply chain systems."

Stock levels in particular locations are a key element in reducing costs in distribution of manufactured goods. "The balance has to be maintained between holding excessive stock anywhere in the supply chain, which is wasteful, or being in an out-of-stock situation, which is not viable."

Smart ERP systems enable the enterprise to keep these things correctly balanced according to its own rules and policies.

"Once the specific business rules are in place, the routine stuff is entirely automated in areas like maintaining buffer and consignment stock and re-ordering," Such said

This in turn means that linking ERP with logistics and supply chain is vital so that varying supply and shipping lead times can inform the purchasing and stocking decisions. "It's all about the business being more agile, which in turn means responding quickly to changing situations because the systems and the information are available in real time or near it," said Such.

Top level ERP systems today are in a sense all about running the standard business processes automatically while constantly monitoring for the pre-set parameters that will trigger management alerts.

"When the key performance indicators are defined, the constant analysis to monitor them is a core part of the system," Such said. "What determines business success is the quality of management decisions in the light of events and trends. Almost always, good decisions are timely decisions."

Commercial profile: Autodesk

Why innovation is key in the downturn

By Richard Blatcher of Autodesk

Autodesk Inventor Publisher 2011

The economic downturn has sent Ireland's manufacturing output into a spiral of decline. One response to this is to cut everything, from R&D to office overheads. Another response is to continue to think strategically and not to get cold feet, to invest in ways to get to the most innovative and best-designed products as quickly as possible – and to ensure they can be brought to market faster than the competitors.

There is no doubt that the global climate favours the braver approach. International markets are capricious, wanting a continuous stream of new and creative new products.

Adopting best practices in digital design is one option that help can fire up a new innovative way of working – here are a few guidelines:

Extend the digital pipeline

The sooner and easier ideas can be captured on screen the better, even if you then go through dozens of iterations after that. If designs can be handed over to manufacturing in digital form they are more likely to keep their original integrity and this results in accurate, reliable products.

Embrace the digital prototype

Maximising the use of digital, rather than physical, prototypes is one of the keys to innovation.

During engineering, stress and strengths can be tested, mechanical movement simulated and the performance of multiple materials analysed. The latest technology enables this to be done in hours.

Discover data management

When legacy design data is held in a secure, but easily accessible central store, then components and even whole assemblies can be re-used to help create new products.

Earlier and faster to market

Digital prototypes can be used to market a product before it is actually made. Images can be used for brochures, websites and other marketing collateral. Best-in-class manufacturers typically build just half the number of physical prototypes as the average. There's no doubt the fighting spirit of Irish manufacturers will be tested in the coming months. There are ways to continue to innovate without increasing overheads and best-in-class players are already benefiting from them. It just takes a vision, a pioneering spirit and, probably, nerves made from increasingly expensive steel.

For further information see: www.autodesk.co.uk/inventor

Traceability is key to quality

By Leslie Faughnan

Traceability is one key element in modern supply chain management, whether of electronic consumer goods or more obviously sensitive items such as food or medicine.

It might be simple tracking of the progress of items through a logistics channel or the ability long after manufacture to track down a faulty batch of something on foot of a customer complaint.

"Modern commerce is almost totally based on barcoding and specific product identification," said Pascal Durdu, Belgium-based specialist in innovation and new solution with Zetes, the leading European vendor of solutions to consistent identification of goods through manufacturing and the supply chain.

Some industries are compelled to place a high emphasis on product traceability for quality and performance reasons, such as the automotive, aeronautical, electronic and pharmaceutical industries while luxury goods are increasingly trying to combat counterfeiting.

"There is a range of technologies to assist in traceability, from the basic bar code labelling through RFID tagging to machine vision and cameras for image based data capture," said Durdu. "An increasingly common solution is interactive voice technology in warehouses and factories because it enables hands-free operation by people performing manual tasks."

Capturing accurately the goods passing through any node is actually the basis of logistics and SCM.

"Most supply chains are shared by multiple partners, service operators and customers," Durdu said.

"Ensuring the integrity of each supply chain is at the heart of all SCM and accurate monitoring and recording of each item into the appropriate systems is the fundamental process on which all the rest of the sophisticated enterprise SCM systems are supported."

Pascal Durdu, Zetes