

A SPECIAL REPORT

# Ireland's Supply Chain

## Keeping an electronic eye on valuable goods

EMMET RYAN

TECHNOLOGY IS revolutionising supply chain management. Tools such as radio frequency identification (RFID) are enabling firms to better track goods through the supply chain.

RFID works by using tags that transmit radio waves which can be tracked remotely. The technology has been around for several years but has only recently become cost-effective.

"In a nutshell, RFID achieves real-time visibility of products as they move along the supply chain," says Jim Bracken, chief executive of supply chain technology organisation GSI Ireland.

"RFID solutions eliminate waste in terms of time spent on inventory control. Shrinkage and traceability is automatically provided through the visibility provided," says Mr Bracken.

"Improved systems reduce stock levels, shorten lead times and reduce warehousing costs."

Having this ability to move goods with shorter lead times is critical to an economy like Ireland's.

With a substantial focus on agri-business, the need to be able to track perishable goods accurately is of critical importance.

"Food is by and large a fresh product and needs to get to market in a timely fashion," says Bracken.

"Traceability and the ability to track and trace products in the event of a recall situation are critical to brand protection and customer loyalty," he says.

Bracken's colleague Chris Adcock, who is head of industry development at GSI's subsidiary EPC Global, told attendees at a special masterclass earlier this year that RFID can provide real returns to businesses. He said this is due in large part to the reduction in costs associated with the technology.

"The average cost of tags has fallen from €1 to 10 cent in the past few years. This fall in costs will continue and will stimulate wider adoption," Adcock said.

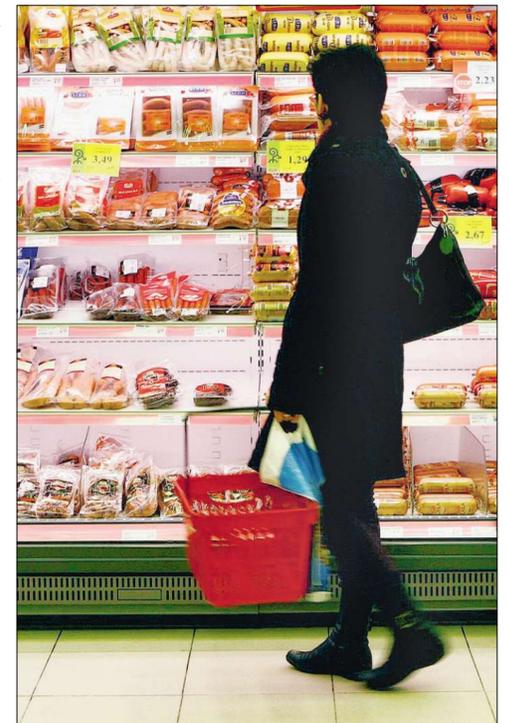
In Ireland's case the greater availability of low-price RFID tags should be a wake-up call. Recent examples have shown the need to improve monitoring of products to improve the image of Irish goods.

"We only have to look at the recent implications and impact on Ireland's 'food island' brand around the total recall of Irish pork products to understand the criticality of having effective and efficient traceability systems," says Bracken.

"The added benefit of good traceability systems is the fact that we have clear evidence that they are more than self-financing," he says.

"This is because the improved product visibility and processes lead to better supply chain management and real cost reductions through the elimination of paperwork."

Bracken says it is imperative that the Irish economy meets the



The recent pork scare highlighted the importance of being able to trace food products. Photograph: Reuters

challenges of implementing and maintaining best-in-class standards for the traceability of products in order to sustain a good reputation.

RFID is not the only technology driving improvements within supply chain management. Other innovations also have a part to play.

"Recent years have seen a proliferation of enabling technologies in SCM. Arguably, the two most significant are enterprise resource planning (ERP) and extended enterprise solutions," says Edward Sweeney, director of the National Institute of Transport and Logis-

tics (NITL). "ERP attempts to integrate all departments and functions across a company into a single computer system that can serve all those different departments' particular needs," says Sweeney.

Traditionally, each department - from finance to human resource management to the warehouse -

had its own computer system, optimised for the particular ways that the department did its work. ERP has changed this approach.

"ERP combines them all together into a single, integrated software program that runs off a single database so that the various departments can more easily share information and communicate with each other," says Sweeney.

"Traditional ERP is focused internally and does not easily extend beyond the boundaries of the organisation. The supply chain focus, on the other hand, extends to all supplier and customer linkages both within and outside the organisation," he says.

"This conflict within ERP systems is now being addressed, on a technology level at least, through what has become known as extended ERP."

"The term 'extended enterprise solution' has also been used in this context. Essentially, this refers to the collaborative sharing of information and processes between the partners along the supply chain using the technological underpinnings of ERP."

These developments in supply chain technology bode well for Ireland.

With an economy that requires traceability of goods, the advances in these innovations and the reductions in costs associated with them can't come soon enough.



Outsourcing the right supply chain functions to the right partner can provide substantial benefits to companies. Photograph: Getty Images

# The devil's in the detail - but a partner can add real value

Firms can reap big rewards by outsourcing - but only if they've done their research, writes Emmet Ryan

THE WIDER variety of services available from third party logistics providers is driving more businesses to seek outside help in supply chain management.

Traditional logistics providers such as UPS and DHL have increased the spread of services on offer, making more Irish businesses sit up and take notice of the potential of outsourcing supply chain functions.

"Increasingly while the origins [of these firms] were in logistics, they have moved into providing value-added services such as supply chain control and management, and data management," says Brian Fynes, professor of supply chain management at the UCD Michael Smurfit Graduate Business School.

"You can outsource everything that's not mission-critical. The question you have got to ask is, can an outsourcing partner provide a capability more efficiently than

you can," Fynes says. "Testing this efficiency is important, as businesses can find that a specific outsourcing provider may not add value to a supply chain."

"There are instances where firms have outsourced services and found it didn't add up, so they insured it again," says Fynes.

Businesses that conduct thorough research on third party providers of supply chain management functions stand to gain considerably. The potential to improve efficiency is substantial if the right partner can be found.

"Supply chain outsourcing is becoming an ever-increasing trend in today's marketplace, with companies blending inside and outside capabilities to create a leading edge global supply chain model," says Richard Jackson, senior manager in advisory services with PricewaterhouseCoopers.

"Warehousing and logistics outsourcing to third party logistics providers is already commonplace, with organisations taking advantage of the synergies available through this model," Jackson says.

Firms are looking at the options on offer and examining the potential these solutions may hold for their businesses, he adds. "Many companies are taking advantage of third party solutions in procurement and supplier management right through to what was traditionally perceived as core business

areas such as manufacturing of key components and products, and ultimately outsourcing their entire supply chain to create the high levels of agility which can help companies operate effectively in today's uncertain trading environment," says Jackson.

"The use of third party solutions across the supply chain is very attractive in the current environment; through the use of strong third party partners, organisations can develop an agile supply chain network, which can effectively deal with supply and demand fluctuations."

While these deals can provide substantial benefits to companies, Jackson warns that for these relationships to flourish, effective performance monitoring and reporting systems with agreed protocols must be put in place.

One effective means of ensuring that these agreements with outside providers will succeed is to use service level agreements. These contracts clearly state the requirements of all parties involved so everyone is operating on the same page.

"Outsourced supply chain solutions are a very effective way of managing your logistics, and with agreed service level agreements, reporting procedures and information flows, there is no loss of control," says Jim Bracken, chief executive of GSI Ireland.

"Modern technology systems now provide remote access to important internal and external data throughout the supply chain, ensuring complete visibility as required," says Bracken.

"In many cases it makes real sense to outsource certain SCM activities to specialists that can provide greater efficiencies and economies of scale for the business, allowing the company to concentrate on what it does best," Bracken says the efficiency of

the potential to improve efficiency is substantial if the right partner can be found

functions such as procurement, assembly, logistics, warehousing, printing and quality management can all be improved through the use of third parties.

"Both short haul and long haul [services] can provide efficient and effective supply chain solutions, the benefits being that you can concentrate on your core business activities in the knowledge that your supply chain solution is best-of-breed and competitive," he says.

Ireland has an abundance of supply chain management and logistics providers. The National Institute of Transport and Logis-

tics (NITL) has helped to inform firms about the providers available through its involvement with the Irish Supply Chain Management Service Directory, which can be found at freightfox.com.

The NITL is keen to stress that outsourcing supply chain management is not a silver bullet.

"The main point is that outsourcing of any aspect of supply chain functionality should never be regarded as a 'magic solution' or panacea," says Edward Sweeney, director of the NITL.

"It is important that a logical and systematic approach to the analysis, planning and execution of outsourcing opportunities is adopted," he adds.

"Furthermore, outsourcing should be considered as an integral part of an overall approach to integrated supply chain design and management."

Sweeney says firms should remember that every project is unique. "The detailed approach adopted in individual projects must be properly thought through. Never forget that the devil is in the detail," he says.

Whatever a business chooses to outsource, the key to a successful relationship with a third party is in the planning.

By laying out clear structures and monitoring the activities of the outsource provider, firms can benefit from improved efficiency, while ensuring peace of mind.

Air freight through Dublin airport and other airports accounts for only 0.5 per cent of the volume of Irish imports and exports - but the value of these is substantial. Photograph: Eric Luke

## Airports keep on trucking

EMMET RYAN

AIR FREIGHT plays a key role in the success of several Irish firms. This places a burden on Irish airports to provide reliable service to the supply chains of these companies. Air freight accounts for only 0.5 per cent of the volume of Irish imports and exports - but the value of them is another matter entirely.

"Although in volume terms, air freight is tiny, Dublin airport believes it moves 29 per cent of the monetary value of imports and exports of Ireland," says Dr Claudia Wagner of the National Institute of Transport and Logistics (NITL). "Regular and competitively priced air freight services are crucial for Irish high-tech industry to thrive in an environment where much of the low-end production of its input components is carried out in the Far East," she says.

A number of shippers are increasing their road freight share to European hubs to reduce air freight costs. The matter is complicated by the manner in which air freight operates here. The key Irish airports in this regard are

Dublin, Shannon, and Cork, but UK airports also play a key role.

"Between 60 and 70 per cent of all air freight is trucked from the airports," says James O'Leary, international trade manager with international transport and logistics provider Geodis Ireland.

With no direct flights from Asia to Ireland, much of the air freight that moves in and out of Ireland is sent to the UK, and goods headed here are transported via truck and ferry before moving to Irish airports, as O'Leary explains.

"London Heathrow and Manchester Airport would be the two major hubs for Irish traffic," he says. "The truck gets a transit document and comes on ferries across the Irish sea. It's then offloaded by airline handling agents at an Irish airport, who notify the importers," he says. "Even though it's being trucked it's considered air freight."

For many businesses the time spent trucking can be problematic. One of O'Leary's clients is a pharmaceuticals firm which transports goods to South America. These products must be sent through Amsterdam, as there is no direct route from Ireland.

"With pharmaceutical product it's critical that it gets there in the shortest possible time, so we truck it directly across," he says. O'Leary says that the limited number of cargo planes coming into Ireland restricts the ability of firms to transport goods urgently.

"The only improvement for the infrastructure really would be for more aircraft to service Irish airports. That isn't going to happen as there isn't enough manufacturing to justify it," he says. Dublin airport may have problems maintaining its ability to serve freight firms.

"The cargo facilities are quite old at Dublin airport and are in need of repair," says O'Leary. "I'm sure that would be the same experience for everyone working in the air freight industry in Ireland."

With more firms looking at using the UK as a base for export due to cheaper rates, O'Leary is unsure whether there will be the impetus required to make the necessary upgrades in Dublin.

However, a Dublin Airport Authority spokesman said there are plans for a new cargo facility at Dublin Airport in the medium term.



Air freight through Dublin airport and other airports accounts for only 0.5 per cent of the volume of Irish imports and exports - but the value of these is substantial. Photograph: Eric Luke

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## The need to evaluate logistics pipelines within the current climate is vital

The risk attached to lengthy and slow moving supply chains in the current climate is becoming unsustainable and forcing organisations to look again at how their existing chains are structured

In the current economic climate businesses must leverage every potential source of competitive advantage in order to survive. It is therefore critical that businesses generate greater efficiency from their existing operational processes. For many Irish companies this means re-evaluating their existing Supply Chain Management processes. Supply Chain Management is about managing the physical flow of goods and associated information flows, from sales through to production, distribution and ultimately delivery to the customer. As an Island nation Ireland is heavily dependent on its supply chain infrastructure, and Irish businesses must pay particular attention to supply chain efficiency.

When organised with an eye on customer requirements, innovative companies can use their supply chain systems to drive customer behaviour, in the same vein smart companies can tailor their supply chain processes to meet their particular needs during any economic climate. Within the current climate that means that adapting your supply chain can actually help to offset financial risk. DSV Solutions Ireland, a leading supplier of Supply Chain Management, third party logistics and consultancy services, offers support for companies looking to adapt their supply chain processes. Nigel Devenish, Commercial Director at DSV Solutions suggests that "against a backdrop of increasing supply risk and pervasive uncertainty which is embroiled in the current turbulent and volatile markets that have now become the norm. Life cycles shorten and global economic and competitive forces are creating



DSV Ireland are a global player in supply chain solutions.

additional uncertainty. The risk attached to lengthy and slow-moving logistics pipelines is now becoming unsustainable, forcing organisations to look again at how their supply chains are structured and managed." Constant innovation is therefore as important in Supply Chain Management as it is for new product development (NDP) or sales & marketing.

DSV Solutions Ireland advises leading indigenous and international companies on a range of transport & logistics matters. One of the outstanding reasons for the high quality services offered by DSV Solutions is the scope of the company, it employs 25,500 people in 60 countries and is ideally placed to assist companies, large or small, to cost effectively manage their supply chains. Based in Naas, DSV Solutions Ireland operates across 3 partner divisions; Air&Sea, Road and Solutions. This allows DSV to help clients in a holistic way with the introduction of Supply Chain technology.

The adoption of new systems for clients can often be a complex process; "the choice of solutions has to match the needs of the operation" adds Devenish. "We seek both a technology tool and a partner we can work in collaboration with to deliver an optimum solution."

DSV is proving to be an attractive partner for some of the world's leading multinational companies based in Ireland, given that it is already a true global player with air and sea logistics, is one of the top three European freight forwarders and currently has transport activities in more than 110 countries with a permanent presence in 59 countries.

For more details about DSV Solutions Ireland contact: Nigel Devenish Commercial Director T: 045 444777 F: 045 444893 E: nigel.devenish@ie.dsv.com

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**Dublin Office**  
Geodis Ireland Ltd.  
Dunmurry Industrial Park,  
Mulhuddart,  
Dublin 15, Ireland.  
T: +353 (0) 1 852 3000  
F: +353 (0) 1 853 8296  
E: sales@geodis.com

**Limerick Office**  
Geodis Ireland Ltd.  
Unit 5, Limerick Business Complex,  
Robert Business Park,  
Limerick, Ireland.  
T: +353 (0) 1 309 172  
F: +353 (0) 1 309 178  
E: sales@geodis.com

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**Antonio.delinares@dit.ie** or  
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