

Embrace 'green logistics' or lose business: the stark choice for providers

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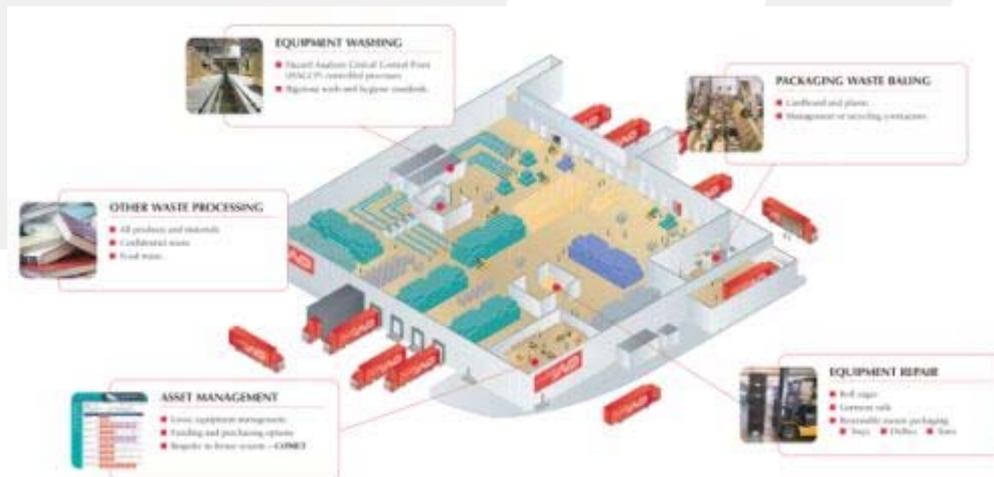
As a result of the corporate and social responsibility (CSR) policies put in place by many global manufacturers and retailers, the environment has become a major issue for all companies involved in supply chains. These policies have been prompted partly by companies' own well-meaning intentions, but largely by pressure from governments which have put in place ambitious targets to reduce carbon footprints. In Europe the aim is to reduce carbon emissions by 20% by 2020.

As a result of this pressure, compounded by the threat of wider adverse publicity which could impact on sales, these businesses have embraced a host of green initiatives. In some instances these initiatives have been driven by specific regulation although businesses have often acted voluntarily, in order to stave off more draconian action by legislators.

'Carbon intensity' a growing factor in tenders

The dominant supply chain partners (e.g. the grocery supermarkets in the retail sector or the vehicle manufacturers in automotive) have been able to use their leverage to ensure that their suppliers commit to a wide range of sustainability measures. In fact, according to one prominent academic, Professor Alan McKinnon of Herriot Watt University, speaking at a recent seminar organised by European logistics provider [Norbert Dentressangle](#), first tier providers are being asked to pick up the cost for much of the responsibility for cutting CO2 emissions. This is in much the same way that suppliers' inventory and its associated costs were pushed back up the supply chain when Just-in-Time or Efficient Consumer Response came into vogue.

McKinnon went on to say that it was certain that 'carbon intensity' would become a major criterion in the selection of suppliers and logistics service providers. Discussing the results of a survey at the same meeting, Stewart Oades, a senior executive at Norbert Dentressangle, revealed that 90% of outsourcing decision-makers had indicated that 'environmental stewardship' would influence the outsourcing choices they will make when contracts come up for tender during the next year.



This is reflected in a growing emphasis on generating data about a company's carbon 'footprint'. Large customers for logistics services are now requiring Logistics Service Providers to supply measurement systems for the tonnage of carbon dioxide or other greenhouse gasses their operations produce. This is a difficult task, however a software package such as 'Carbon View', developed by Supply Chain Consulting, is designed to model operations and estimate how much carbon dioxide is produced using various 'Green-House Gas Protocols' as a benchmark. As yet logistics is not likely to be subject to carbon trading activities, although in the long-term this might change.

Five stage approach to reducing carbon emissions

Oades went onto say that his company had adopted a five stage approach to mitigating its impact on the environment. Firstly, he asserted that all organisations must begin with the basics of educating employees about the importance of implementing carbon management strategies. Secondly, companies should begin initial compliance by completing a static carbon footprint analysis using historical product data. The focus at this point is primarily on internal improvements that reduce carbon emissions resulting in significant cost reductions in energy, water usage and other areas.

At the third stage, or what Oades referred to as the 'Process Level', companies automate their carbon management so they can capture a 'live' carbon footprint. They also broaden their focus to include both internal and external processes across the extended supply chain, implementing distribution and other supply chain improvements that positively impact the environment and lower operating costs.

At Level 4 or the 'Product Stage', the 'live' carbon footprints can be allocated to specific products automatically. An enterprise can understand and manage product level carbon footprints by process, based on internal and external carbon costs across their global supply chain.

Finally, when a company reaches the optimal Level 5, it has all the information and solutions required to optimise the balance between cost, time and carbon emissions. At this advanced stage, companies can redesign their supply chain to create an 'eco-friendly' network.

Practically speaking, logistics operations can fairly easily implement initiatives at stages 1-3. This can involve minimising on-site vehicle activity (for example cutting back on idling time) as well as monitoring and reducing site energy consumption and fork lift truck movements. More sophisticated methods involve the use of technology to optimise order profiles to reduce the frequency of daily trips and ensure the most efficient loading and routes.

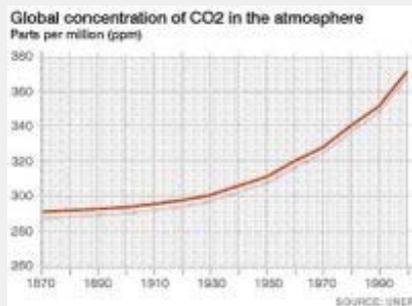
For example in the Netherlands, [TNT](#) Innight uses a Vehicle Routing and Dispatch solution developed by Dutch software developer ORTEC to handle more than 18,000 shipments per night on routes with often more than 100 deliveries. According to the company, this resulted *inter alia* in shorter driving times and distances travelled as well as increased visibility of waiting hours. The main aim was to increase efficiency and reduce costs, but there were indirect benefits in terms of carbon emissions. Norbert Dentressangle (through its [Christian Salvesen](#) subsidiary) has its own solution which it calls SHARP Solution Design – Optimised Delivery Process.

Not just logistics – also green warehouses

Reducing carbon footprints is, of course, not just relevant to logistics operations, whether in-house or out-sourced. Property developer [Gazeley](#) has focused on green issues for several years, incorporating environmental best practice into its warehouse design. In its 2008 Sustainability Report, Gazeley pledged that, by 2010, 50% of all construction waste would be re-used or re-cycled; 70% of all development sites would demonstrate a 'net gain' in Biodiversity & Habitat; and 35% of all developments would be carbon positive, with a 35% overall global reduction in carbon emissions.

Jonathan Fenton Jones, Gazeley's global procurement and sustainability director, has claimed that over the past five years his company has built 1.2 million sq m (13 million square feet) of sustainable warehouse space reducing customers' operating costs by £930,000 per year. One of its present developments will have its own bio-fuel micro power station. Another feature is that vehicles arriving at the site will pass over kinetic plates that will produce electricity, which will be used to power electric buses, cars and even bicycles. Its Procter & Gamble building at G.Park Amiens (France) has delivered a 56% reduction in carbon emissions and saves an estimated £69,000 a year in operating costs.

Green cynicism?



As Professor McKinnon commented, suppliers will increasingly be required to demonstrate their green credentials as part of the tendering process. There is no doubt that by adopting more efficient, technology led solutions, all parties in the supply chain have the opportunity to reduce their carbon emissions, as well as their costs. With fuel prices continuing to rise this is not such an arduous task. However it would be disingenuous to insist that there has not been a large slice of cynicism on the part of logistics suppliers to the environmental policies being put in place by their customers. They are expecting to pick up the bill for the many green initiatives which retailers and manufacturers are willingly, or not so willingly, putting in place.

These are just some of the issues which will be discussed at Global Distribution Strategies Conference 2008 by an expert panel of senior logistics and supply chain executives as well as Ti's own analysts from China, India, US and Europe. For more details on how to sponsor or attend as a delegate and a full programme go to www.ticonferences.com or contact Sarah Smith ssmith@transportintelligence.com on +44 (0)1666 511880.

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