

GREEN SUPPLY CHAIN OVERVIEW

INTERVIEW WITH ABRIE DE SWARDT, MARKETING DIRECTOR

1. Why are green/sustainable supply chains causing such a buzz in the industry at the moment?

Climate change reached the top of the global agenda in 2009, having historically been a predominantly activist-led issue – often heard, but not acted on. As the world increasingly faced devastating natural disasters and manmade environmental disasters, world leaders realised the need to collectively find solutions to environmental degradation.

Until very recently, freight transportation was a negligible consideration in company strategy with regards to environmental responsibility. However, current business practices such as international sourcing and quick turnaround times challenge this by extending transportation distances and minimising lead times in the supply chain. Standard modes of transportation consume fossil fuels, generate noise and emit toxic compounds.

It is in light of this global and local economic and environmental context, that the logistics and supply chain management industry has begun to tackle the difficult ‘green’ challenge of transportation.

2. You mentioned in your presentation at the recent SAPICS conference that you believe sustainability to be the next BEE. Would you like to comment further on that?

Sustainability can be considered to be the new wave in corporate transformation. It is a critical focus area for business, both from a people and planetary perspective. It incorporates a focus on skills development, with the boosting of South Africa’s human capital base, together with environmental protection being critical for the country’s socio-economic development. Not only is sustainability considered part of the mandate for responsible corporate citizenship, but it will become regulated in the near future.

Consider how the King Code and Report on Governance in South Africa (“King III”) has put substantial pressure on companies to integrate sustainability into business models, an influencing factor that has contributed to a shift not only in mindset, but behaviour.

In addition, the South African Budget 2010 incorporates a firm emphasis on ‘green’ issues. For example, all new passenger vehicles purchased as of September 2010 will include an environmental tax based on their certified CO₂ emissions at R75 per g/km for each g/km above 120g/km. This will have an impact on the logistics and supply chain management industry.

3. Does greening up a supply chain necessarily have to cost more?

The ultimate logistics challenge is to find ways in which “green” can increase revenue, reduce costs and nurture the environment. In an ideal world, greening the supply chain would not cost more upfront, but in the current economic context, a short-term investment could be required for medium- to long-term benefits depending on the specific scenario in question. However, investing in ‘green’ assets pays for itself over and over, both economically and environmentally.

4. What are some of the more striking innovations globally in greening up supply chains?

Global 'green' logistics innovation and best practice is not at all far from our doorstep. 'Green' fleet innovations include vehicles equipped to Euro 5 emission standards that enable them to run on low sulphur diesel, with additives that further reduce toxic emissions, the ecoFridge and Thermo King's SL and SLX range. In 2011, IMPERIAL Logistics will be the first company to introduce a Euro 5 specification fleet.

5. In the UK, competitors in the food manufacturing and retailing sector are pooling transport resources to get vehicles off the road. Is our industry mature enough for such an initiative?

The South African logistics and supply chain industry is more collaborative than is commonly believed, though there is always opportunity to further enhance our collective effort to address issues that cannot be solved by just one company. Such an initiative could be possible in the near future in a market such as South Africa, but it would require embracing the principle of Ubuntu on a practical level.

Because the market is small, it is actually ideal for an initiative similar to that of the UK, but there are barriers that would need to be overcome to achieve this such as:

- South African industries are intensely competitive, operating in silos
- Different levels of maturity exist within South Africa's various sectors, as do different requirements from logistics and supply chain management

However, a mature Logistics Service Provider (LSP) would consider these barriers an opportunity. The LSP is the ideal role-player to be the initiator behind collaboration, because as an outsource partner, they understand the different players in the market, as well as market needs. The LSP could fulfill an integration role.

IMPERIAL Logistics has also found that collaboration between the private and public sector, as well as partnerships with academic institutions are invaluable when it comes to addressing major industry issues. For example, through the annual State of Logistics™ survey, produced through a partnership between the CSIR, University of Stellenbosch and IMPERIAL Logistics, critical industry knowledge is generated and shared. With the opportunity to expand on studies like this, critical barriers to collaboration for the 'greater good' can be invested further and thereby, overcome.

6. Are local industry bodies doing enough to encourage supply chain efficiencies?

Yes, to the extent that organisations such as the Supply Chain Council, SAPICS, Logistics Achievers Awards, CILTSA and the Road Freight Association (RFA) contribute to knowledge sharing and best practice. For example, SAPICS, through its annual event is doing good work to encourage collective efforts towards supply chain efficiencies, with an increasing focus on 'green' logistics. However, I believe

that this focus will intensify in the coming year, which is necessary for new 'green' best practise to be developed and adopted, in effect bringing down the cost behind 'green' processes and technology.

Engineering associations also play a critical role in furthering globally competitive supply chains in southern Africa. Bodies such as the Southern African Institute for Industrial Engineering (SAIIE) have an important contribution to make to develop and retain critical engineering skills in the region. Their value lies in furthering industry best practice and nurturing the talent pipeline.

It is important for logistics and supply chain management companies to support industry bodies, as they aim to generate collective knowledge sharing that benefits all players and provide platforms for the industry to come together.

7. What are the first steps to be taken by an organisation wishing to “green-up” its supply chain?

Admitting you have a problem is the first step toward recovery. Volatile energy costs substantially drain company resources. Notably, new government regulations will require that companies cut energy use or pay penalties. In addition, pressure from customers, shareholders and advocacy groups continues to mount for companies to cut energy usage and reduce their carbon emissions.

Green initiatives should clear three hurdles. They must be acceptable financially, environmentally and socially. However, there is still widespread uncertainty about how to move forward with green supply chain initiatives. IMPERIAL Logistics feels strongly that doing nothing is not an option and views the transformation to a green supply chain as a three-fold process:

- Becoming educated
- Measuring the company’s carbon footprint and identifying change levers
- Embarking on business case supported initiatives

8. When do you think we will start seeing hybrid or alternative energy vehicles in the local distribution network?

In the commercial vehicle arena, hybrid vehicles are only just becoming commercially viable. They are still an expensive option, with much debate as to whether the carbon footprint generated through the production thereof outweighs the long-term environmental impact. However, there is significant innovation coming out of South Africa in terms of electric vehicles, which are believed to be on the brink of becoming available commercially.

In terms of heavy duty vehicles, we are still a long way from zero emission capabilities. Products such as Euro 5 engines are however, a step in the right direction.

9. Do you believe that rail in South Africa has a role in a more sustainable supply chain?

Rail undoubtedly plays a critical role in the southern African supply chain management context, despite the region’s inefficient and inadequate terminal and rail systems. As a percentage of logistics costs,

southern Africa's freight transport costs are the highest worldwide. The region faces other challenges including high demand, high fuel costs, limited collaboration, process inefficiencies and skills shortages.

A substantial way to address these challenges is by developing and implementing inter-modal logistics solutions that bring rail back into the transport equation. Consider that the high demand for transport is supplied by road, an expensive and unsustainable solution for certain products and geographical areas. By aligning objectives, companies can alleviate pressure on the road system, bringing back to rail heavy duty commodities such as coal, iron-ore and manganese, and containers best suited for rail transport.

It is important though for road and rail sectors to complement each other through applying an optimum split between the two transport modes. Furthermore, solutions that optimise southern Africa's end-to-end supply chain must be identified, including the way that South Africa's rail, road, inland terminals and ports are integrated. **Forming public private partnerships is a significant requirement to support Transnet's multibillion-rand investment plan in creating rail capacity to achieve sustainable logistics.**

10. Tell us more about the collaboration between IMPERIAL Logistics, Fast 'n Fresh and Woolworths.

Fast 'n Fresh is a member of the IMPERIAL Logistics Group, which has made groundbreaking strides in innovative 'green logistics'. The partnership with Woolworths has demonstrated that a focus on best practice across supply chain transport activities results not only in operational and economic benefits, but limits carbon footprint and waste, and thereby reduces environmental impact.

In 2009, we had up to 230 trucks in operation daily, some of which travelled an average of 28,000km monthly. Our fleet cumulatively made its way to over 300 destinations on a daily basis, carrying 81% in perishables that required strict temperature control. The environmental impact of such transportation is unquestionably high, so for us, every truck off the road and every trip avoided counts for greater environmental sustainability.

Our focus is on achieving responsible business growth in collaboration with our customers. Through analysis and planning, we shorten distances travelled by redesigning distribution networks, optimising routes and consolidating shipments. By leveraging mode changes, we use rail instead of road for rail centric consignments. In fact, we regularly redesign products with suppliers and customers to reduce fuel consumption, CO₂ emissions and waste. Zero emission refrigeration equipment plays a critical role in our 'green logistics' mix.

The following efficiency enhancing 'green' transportation initiatives have been implemented:

- All fuel consumed contains 5% "biodiesel"
- The distribution fleet has technically advanced Euro 3 engines to ensure that minimum emission standards are achieved while Euro 1 and 2 remains the most commonly used technology in South Africa
- Nitrogen tyre inflation is used, causing the tyres to run far cooler, thereby substantially extending the useful life of the tyres
- Used tyres and oil is disposed of in a responsible manner, using reputable agencies like "Oilkol"
- All trailer fridges use 'green' rated refrigerant gas
- Borehole water is used to wash vehicles and all wash water is recycled. Bio-degradable detergents are used in this process.
- Storm water is separated to ensure solid waste is removed before entering the water reticulation system.

Notably, Fast 'n Fresh has partnered with ecoFridge, investing over R3.5million to acquire three ecoFridge trailers, whilst one rigid unit is also equipped. Fundamentally different from mechanical refrigeration systems, ecoFridge is nitrogen powered and thereby completely harmless to the environment.

It is anticipated that 596 tons of CO₂ per annum will be eliminated due to our investments in the ecoFridge alone and that fuel consumption will decrease up to 9% because of load optimisation. Through the equipping of the new 30 pallet trailers, Fast 'n Fresh achieved optimisation of DUs per kilometre. A reduction of 8.8% and 7.6% consecutively will be seen in trips and kilometres travelled.