

# Prelude: Findings of Expert Panels – Shades of Things to Come

John Gattorna

In February 2008 a major event in the Asia Pacific supply chain calendar was held in Melbourne – the 2008 Supply Chain Business Forum. The event was hosted by the Institute for Logistics and Supply Chain Management (ILSCM) at Victoria University, Melbourne and co-hosted by the Macquarie Graduate School of Management (MGSM), Sydney, under the direction of Dr John Gattorna who holds adjunct positions at both institutions.

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The three-day event was organized around eight panels, each debating topics of great relevance to the wider business community. Attendance at the Forum was by invitation only, which meant that the 100 panelists and participants who attended were there because they were passionate about the topics on the agenda and wanted to contribute their knowledge and experience.

A 'Proceedings' document was prepared to record the outcomes of the various discussions, and Anna Game-Lopota, editor of *Logistics* magazine in Australia, agreed to draft short articles to capture the spirit and essence of each panel discussion. An adapted version of these articles follow, and are included here because they point the way to many of the topics that are covered in more detail later in this book. The original versions were also published as a series in *Logistics* magazine during 2008.

# ENTER THE VALLEY, ASCEND THE MOUNTAIN<sup>1</sup>

Anna Game-Lopata

‘Modern companies are overservicing some customers and underservicing others; but for the most part they don’t know which is which’, says John Gattorna at the 2008 Supply Chain Business Forum.

When Stuart Whiting joined DHL Express Taiwan as general manager he found an organization with no standard approach to understanding or aligning with its customers.<sup>2</sup>

‘Companies traditionally look at customer segmentation from a transactional point of view,’ Whiting explains. ‘So the heaviest volume customers would be managed by the major account managers, and the lowest volume customers would be managed by the customer service department.’

‘We knew instinctively this wasn’t right,’ he says.

Whiting told the 2008 Supply Chain Business Forum panel on aligning enterprise supply chains with customers, suppliers and 3PL providers that, while DHL was managing customer demand, processes weren’t systematized.

‘We had multiple behaviours and multiple responses within the organization,’ he says. ‘But we weren’t optimized. We weren’t providing the best of the organization or fully satisfying customer needs.’

Whiting realized that if DHL Taiwan wanted to be number one and continue to stay ahead of its competitors, it was absolutely critical that the team accept the need to change – a particularly difficult task given that he was the only English speaker in the Mandarin-speaking office.

‘I was honest,’ Whiting recalls. ‘I said: “I don’t know what we’re going to be changing, but let’s go into this with the view that we’ve got to change the status quo. If we can do that, it will mean our eyes are open as we’re finding out what we need to achieve.”’

Whiting took action, adopting supply chain thought-leader John Gattorna’s model of ‘Dynamic Alignment’.

Gattorna, whose initiative was behind the invitation-only Forum, and who was chair of the panel, argues that customers’ buying behaviours aren’t chaotic; rather, patterns are always discernible if you look hard enough.

***‘Modern companies are overservicing some customers and underservicing others; but for the most part they don’t know which is which.’***

'Unless you start with a frame-of-reference, your operations strategy and everything you're doing in terms of transformation is really just guesswork,' he says. 'The only absolutely accurate frame of reference is a complete understanding of what customers want when they buy your products and services.'

Gattorna's Dynamic Alignment model, explained fully in his most recent book, *Living Supply Chains*,<sup>3</sup> deconstructs customer segmentation according to four main dominant buying behaviours and the associated customer service expectations. These behaviours are defined as 'collaborative', 'efficient', 'demanding' and 'innovative solutions'.

'Collaborative' behaviour relates to environments with stable, predictable patterns of demand, where mature, sometimes augmented, products are delivered regularly. Customers in this segment are loyal and forgiving, desiring a trusting collaborative partnership.

'Efficient' buying behaviour also relates to customers with regular or predictable demands, but it involves a more adversarial, transactional relationship.

'Demanding' customers require rapid responses to unpredictable supply-and-demand situations. They are price-aware, make commercial decisions based on pragmatism and prefer a more impersonal, outcome-oriented relationship.

The 'innovative solutions' customer looks for supplier-led developments and the delivery of new ideas, fast. He or she functions in high-risk conditions where demand is extremely volatile, requiring speed, change, innovative solutions and individual decision-making. This customer will pay no matter what the price.

Although the patterns are consistent, Gattorna says that organizations can't set up their supply chains on the assumption that customers will always buy products the same way – even staples like milk or petrol.

'What you need to do is set up three or four supply chain configurations involving different combinations of standard processes, and hard-wire them into your business. Then, if a loyal customer suddenly has a disaster and wants you to turn inside-out to solve the problem, you've got the capability already embedded. You can then revert to the original, low-cost lean supply chain when the crisis subsides.'

Gattorna sees supply chains as 'living systems', driven by human beings – customers, suppliers and third parties. The key to Dynamic Alignment is the process of successfully matching internal business subcultures and leadership styles with the specific ways in which customers like to buy products and services.

‘Once you understand the buying patterns for any product or service, then it’s not difficult to reverse engineer the organizational design, processes, Key Performance Indicators (KPIs) and incentives, internal communications – all the things you need to use to shape the subcultures within your business that drive the different “conveyor belts” towards customers,’ he explains.

But the proof is in the pudding. It took Stuart Whiting eight months of intensive customer interviews and market research to really understand the dynamics of DHL’s Taiwan marketplace, including customers’ behaviours and the most appropriate strategies to address their needs.

‘We’ve seen a significant increase in profitability from our most important collaborative customer segment,’ Whiting says. ‘By systematizing our response, we also opened up a whole new hitherto untouched customer segment.’

‘Looking at our customer satisfaction responses in that very short period of time, we saw a 15 per cent increase across what we call “first-choice KPIs”. These are the attributes that make DHL the first choice – the qualities that make a customer call 1800 DHL before calling any of our competitors.’

‘The process of developing a systematized model of dominant customer behaviours has also reduced our cost-to-serve from 2.9 to 2.5 per cent of revenue,’ Whiting adds. ‘With an optimized model, I can see we’re becoming sharper with the new focus. Previously we had the mentality of “one-size-fits-all” at the lowest possible unit cost to DHL. But the new approach allows us to respond to four dominant customer behaviours in the marketplace and ensures we deliver the appropriate agile or flexible responses in line with particular customer demands.’

Whiting says that understanding customers and the marketplace is the hardest thing for a company to do.

‘If you haven’t yet developed that critical understanding, you have no business playing with your supply chain,’ he asserts.

At the New Zealand-based dairy cooperative Fonterra, customer segmentation enabled the misalignment of objectives and processes to be identified.

‘With segmentation complete, we intended to meet the requirements of our customers in a phased approach,’ says general manager and panelist Nigel Jones.<sup>4</sup>

However, when data depicting what customers wanted Fonterra to deliver was compared with what the company planned to supply and what was actually delivered, the differences were marked.

‘Our objectives were defined to drive performance at the business unit level and not across the end-to-end supply chain,’ Jones explains. ‘This ended up

causing one business unit's set of objectives to impact the performance of the others.'

'In addition, our production planning and manufacturing scheduling processes weren't adequately linked. We were left with a situation where there wasn't enough time to correct supply plans when deviations arose, which affected the downstream supply chain.'

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'Despite our good intentions, visibility was very limited – both in relation to customer requirements and off-take across the supply chain, and impacted negatively on operational performance. Often the wrong assumptions were being made for packing and shipping processes.'

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With no mechanisms in place to stabilize the 'must do' part of the business, constant replanning of supply was required, and this increased costs.

Once the alignment of Fonterra's objectives was achieved, the organization was able to collect better information to drive planning and improve plan stability.

'Visibility of production schedules and material availability dates finally began to increase', Jones says, 'along with increased compliance to plan and a decrease in rework.'

Panelists agree that it's essential to incorporate strong leadership into the process of developing an organization's internal cultural capability.

For panelist and managing director of Perth-based company Distinctive Building Products, Brett Rice, the process of understanding customers, recognizing internal culture and reforming the associated attitudes and belief systems was a journey that took two years at his former company, Boral Panel Board (WA), during which a drop in revenue had to be endured.

'In WA, the demand for labour is very intense,' Rice says. 'With a high level of staff churn it's difficult to instil strong values around culture and process.'

'Misalignments were exacerbated by the salespeople's tendency to shy away from customers who needed better service, and overservice those who were stable. Once we had segmented our customers, we needed to align what we knew about them with the way we executed internally. It was time to enter the valley and ascend the mountain.'

'We approached this by embedding the values we were promoting into every meeting and regularly reviewing our alignment strategies with customers. We stay close to all our teams and customers, and make a point of investing heavily in development and training, including attending graduations.'

As a result of its focus on customer processes and culture, Boral Panel Board (WA) achieved an increase in sales volumes of 52 per cent over three years.

'Revenues increased by 53 per cent and operating profit by 350 per cent,' Rice proudly says. 'There was an enormous improvement in our ability to meet demand as cultural reform took effect. As our track record grew, so did customer expectations, which also invigorated our performance.'

According to DHL's Stuart Whiting, everybody in the organization should be a leader.

'It doesn't matter whether you're a driver, customer service manager, salesperson or the boss of an organization; you've got to behave like a leader in your area of influence.'

'One of the things I promote heavily is making sure that every employee understands the strategy we are pursuing in the marketplace. This allows them to adopt the mannerisms of leadership and make their own particular contribution.'

'Our team therefore knows what we've done as an organization to align to customers' buying behaviours, they know all of the attributes that make DHL different to the competition, and as a result the whole organization is genuinely a lot more customer-centric.'

GLASS WALL<sup>5</sup>

Anna Game-Lopata

Not all business is good business in the outsourcing relationship, the 2008 Supply Chain Business Forum finds. Leading supply chain solutions provider Linfox Logistics has reduced its customers from 300 to 104 since 2002, while increasing profits by 200 per cent.

CEO Michael Byrne told the 2008 Supply Chain Business Forum panel on the critical contribution of 3PLs that his company's strategy has been viewed as high risk and therefore controversial.<sup>6</sup>

'Linfox Logistics is asset-heavy, while others are stripping assets,' he explains. 'More importantly, we spend a lot of time thinking about customers. We see customers as unique – as business partners.'

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'We have no standard offering. Customers want to be valued, they want attention and they're smarter and better informed than in the past. We need to keep up with them and be robust with them,' he says.

Byrne, whose company sponsored the invitation-only Forum, says he doesn't think that 3PLs look after their customers very well.

'For a strategic partnership to succeed, execution needs to be near perfect,' Byrne says. 'Since such strategic relationships require enormous effort and time, it makes commercial sense to have fewer customers.'

***'More importantly, we spend a lot of time thinking about customers. We see customers as unique – as business partners.'***

According to panel chair, Professor Martin Christopher of the UK's Cranfield School of Management, the rapid change from a supplier-driven market to one of mass customization has increased the need to harness the skills and capabilities of others.

'Because skills are of strategic importance to business the trend is irrevocably moving towards virtual arrangements and the sharing, rather than ownership, of data,' he says.

'Most businesses are not prepared to pass over control, and are not yet ready to change the structure of their business,' Christopher maintains. 'A certain level of discomfort with this change is also inevitable because most businesses are still primarily transactional rather than strategic in their relationships with providers.'

With 15 years' experience in the area of outsourcing contract law, panelist Jeremy Clarke, principal lawyer with the UK firm LLC Law points out that, in an environment where many brand organizations outsource close to 100 per cent of their activities, the concern over control should now be 'old hat'.<sup>7</sup>

'In such a partnership, information has to be disclosed in order for the provider to understand the user's business,' Clarke says. 'We need to actually embrace a policy of opening ourselves up to appropriate organizations who offer the opportunity to improve our business overall, and that is a matter of trust.'

'It's also a matter of careful selection, employing the right kind of protections, controls, due diligence and appropriate contract provisions to make sure that issues don't arise. If a provider can't demonstrate the right approach to safeguarding confidential business information, the user shouldn't even be talking to that provider,' he says.

According to panelist Connor O'Malley, Group Executive of Logistics and Planning for National Foods Australia, strategic conversations can't take place unless a 3PL exhibits near-perfect operational execution. The fact that true partnerships remain problematic and 25 per cent of organizations are still unhappy with their logistics provider seems to add weight to this view.

Jeremy Clarke argues that 3PLs are often expected to garner all the core information about a user organization and somehow pull out a 'white rabbit' solution under impossible circumstances.

'Contracts are often rudimentary and not particularly well thought through,' he explains. 'They tend to be too lengthy in the areas that are less important and pretty thin in the areas that are very important, like Service-Level Agreements (SLAs) and KPIs.'

'If you haven't got a very clear understanding of your own business, the provider organization in turn will have a distorted view, too. This will produce a standard kind of contract where non-standard issues might be the most critical, even at the heart of why a company might be outsourcing in the first place. That's simply a recipe for an inappropriate contract.'

'Each of the parties must make sure that it has a framework or structure in place governing the relationship which is straightforward, does the job, provides appropriate protection, gives a fair balance of risk and reward, and is hopefully long term. Otherwise, you're continually reinventing the wheel over very short periods of time.'

'Early termination is a major problem and a headache. In essence we've got two organizations. One of them is buying and one of them is selling. Each party needs to fully understand the other's business, the way it operates,

its culture and objectives. Undertaking this process is the key to successful outsourcing, but it's a complex task. It takes some work. It doesn't fly off the page, you've got to drill in, and invest a minimum of three months up-front. And then at the end of three months you can more accurately decide whether you have the right fit.'

Panelists agree that large contracts should be a facilitator for leveraging the business, rather than an excuse to hide behind a problem. Users must understand their outsourced activity and proactively manage service or manufacturing partners to ensure that they continue to do the best job possible or risk losing their competitive position in the market.

On the other hand, Jeremy Clarke questions whether 3PLs should wait to achieve operational excellence before embracing strategic relationships.

'Engaging in a collaborative framework and improving your buy-and-sell contracts will help organizations better understand their business,' he says. 'It's almost like a self-fulfilling prophecy. Wisely chosen organizations with whom you're engaged will make an immediate contribution to improved efficiency.'

Clarke says that 3PL relationships of the future will be underpinned by contracts refined to include more KPIs and service levels, as well as provisions to review and refresh these periodically.

'Such contracts are the basis for providing services on the ground, whether they're warehousing or transport or other value adding services,' he says. 'Rather than shoehorning strategies for improving the business into these arrangements, some companies are developing new structures where the buy-sell agreement is overlaid with a collaborative framework. This needn't be a complicated legal document, but one that can transition from the initial two or three years to a longer period, such as five or ten years. Inviting your service provider to take a more proactive role in terms of the future development of your business takes place at a different level and requires multiparty involvement.'

'Modern-day business moves very quickly, and the driver is fast change,' Clarke warns. 'If businesses put contracts in the bottom drawer, and fail to measure their business performance in a meaningful way, they'll be unable to function effectively in the long run. That's why I say look at contracts and keep those KPIs alive, fresh and relevant.'

***'We need to actually embrace a policy of opening ourselves up to appropriate organizations who offer the opportunity to improve our business overall, and that is a matter of trust.'***

Connor O'Malley believes that it's up to the customer to determine the extent of a relationship with a provider. 'Common myths include the notion

that 3PLs don't add value, that they don't understand their customer and that they're more focused on increasing their own margins than reducing a customer's costs,' he points out. 'Whatever the level of the relationship, values must align. The customer's value proposition must be clearly defined for both parties.'

'Inevitably there will be a wall between providers and their customers,' O'Malley says. 'In the worst scenario it's a brick wall; in the best, it's a glass wall. It's up to the customer to let their 3PLs in.'

## BETTER THAN A CURE<sup>8</sup>

Anna Game-Lopata

Supply chain risk keeps CFOs awake at night, yet they commonly say that they don't have the time or budget to deal with it, according to Vinod Singhal of Georgia Tech in the US.<sup>9</sup>

Supply chain disruptions are becoming more frequent. According to a recent Accenture survey of 151 industry executives in the US, 73 per cent had experienced significant disruptions in the last five years.<sup>10</sup> Despite this, further research by Aberdeen Group reveals that less than half these companies have systems in place to manage and respond to disruptions.

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Professor Vinod Singhal, chair of a panel exploring the financial impact of supply chain disruptions at the 2008 Supply Chain Business Forum, believes that executives have too many risks to manage, so it's a question of where to focus limited resources. Singhal told the invitation-only Forum, an initiative of international supply chain expert John Gattorna, that while terrorist attacks, natural disasters and other highly publicized supply chain disruptions generate discussion and concern, the industry still doesn't really know where to direct its energies. 'Most executives can see the value proposition of improving efficiencies and reducing costs,' Singhal says, 'but they have a hard time getting a handle on the economic consequences of supply chain disruptions. This may prevent them from making investments and changes that could mitigate the risk of disruptions.'

By way of example, Singhal points to the 2007 product recalls at Mattel. 'The company wouldn't have expected its Chinese suppliers to be using lead paint,' he says. 'Similarly, Airbus wasn't able to predict development woes which caused delays to the delivery of its A380.'

***'Supply chain risk keeps CFOs awake at night, yet they commonly say they don't have the time or budget to deal with it.'***

Vinod Singhal is the author of the most comprehensive and detailed analysis published to date on the long-term performance effects of supply chain disruptions. Based on a study of 800 large public firms in the US, Singhal finds that supply chain disruptions result in stock prices between 33 and 40 per cent lower than their benchmarks over a three-year period. This starts one year before, and ends two years after the disruption has been announced.<sup>11</sup>

'Essentially, companies don't run straight to the market when they have a problem,' Singhal says. 'They wait for the right moment and in the meantime

try and fix it. When a company announces the supply chain disruption to the capital markets, there's an instant negative response and, on average, we see a 7 per cent drop in share price for each of the 800 companies. More interestingly, about six months before the announcement we see a 12–13 per cent underperformance in the share price.'

'In the six months before an announcement, the stock market may not know the reason for the problem, but negative effects can already be felt,' Singhal says. 'These bring the stock price down. After making an announcement, the company might put mechanisms in place to recover, but the competition starts to take advantage of the situation and we see another drop to about a 10 per cent underperformance in the following year.'

Disruptions also increase risks to the brand. 'What we found is that volatility following a disruption increases by about 21 per cent over a two-year period,' Singhal says. 'This means the stock market perceives the company to be very risky – one that's failing to manage its supply chain and make money.'

Singhal describes a 13.5 per cent hike in share price volatility in the year after the disruption compared to volatility in the year before the disruption. Not surprisingly, his research finds that disruptions have a significant effect on profitability. 'After adjusting for industry and economic effects, the average impact of disruptions is a 107 per cent drop in operating income, 7 per cent lower sales growth and an 11 per cent growth in costs,' he says. 'Companies that were making a lot of money before the disruption are making losses by the time they deal with it,' he adds. 'Profitability drops firstly because the disruption means customers are not getting the product. Sales drop off by about 7 per cent, quite a big number for most companies. Secondly, the disruption increases costs by about 10 per cent because, along with fixed costs, the company has to take action to recover from the disruption. Overall, this amounts to a 107 per cent drop in profitability.'

***'The mindset for many companies is to source low-cost products from China, for example, but they need to understand this involves risk.'***

Panelist Professor Martin Christopher of the UK's Cranfield School of Management says that trends exacerbating supply chain risk include leaner, more complex global supply chains, the centralization of production, reductions in the supplier base and outsourcing. 'Supply chain efficiency isn't just about speed,' he says, 'but about agility, or the ability to move from one speed to another. However, a conflict arises for lean companies because the key to agility is capacity. While it's not seen as desirable to have idle inventory, there may be a role for some slack in the supply chain to mitigate the risk of disruption.'

'It's true that everyone is facing cost pressures and building in slack capacity can be expensive,' concurs Vinod Singhal, 'but there are certain critical nodes in the supply chain where building a buffer could prove an essential strategy. These are the points in the supply chain at which a breakdown will cause devastation.'

'Using single sourcing, for example, has been very popular in the last ten years but it can cause supply chain stress,' Singhal adds. 'If you have a single source supplier that fails to perform you're in trouble.'

***'Companies need to develop a healthier culture for supply chain risk management as opposed to financial risk.'***

Mitigating supply chain risk is essentially about prevention, rather than cure. Panelist David Bird, director of PriceWaterhouseCoopers' Risk Advisory Division says that mitigating risk requires companies to develop and monitor long-term processes which lower risk without impacting operational efficiency.

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'Companies should scan the environment for opportunities to reduce risk without major investment,' he says. 'They should frequently question the cost-benefit ratio of certain strategies, such as buying insurance to transfer risk.'

Vinod Singhal argues that the problem with transferring risk is that it's difficult to quantify exposure.

'With automobiles or property damage, for example, you can price the risk very well,' he says. 'Not so for risks relating to the structure of the supply chain. It's true that insurance companies are getting more active in supply chain risk management, but I'm not sure they'll be prepared to cover economic impacts that are consistently difficult to quantify.'

Singhal maintains that there's no escaping the fact that mitigating risk requires an arduous process of assessing the primary sources of risk your company might be facing.

'The mindset for many companies is to source low-cost products from China, for example, but they need to understand this involves risk. So the first step in any mitigation strategy is to understand what's happening in the supply chain. Companies can't be expected to deal with every kind of risk, but once you have some kind of risk 'map' then you can start to put counterstrategies in place.'

Panelists agree that developing a risk management culture at the highest level is essential to prevent and respond to supply chain disruption. 'People don't pay much attention to risk management on the supply chain side,'

Vinod Singhal observes. 'There's an unwritten code of failing to give credit for fixing problems that never happen. Managing the supply chain well is simply expected. Companies need to develop a healthier culture for supply chain risk management as opposed to financial risk. This must start at the C-level. Once management understands the risk, investments can be made to develop the required capabilities to deal with that risk.'

Singhal cites Wal-Mart as a case in point; the company deploys a dedicated group to monitor risk related to weather alone, such as hurricanes or snow storms. 'That's a commitment Wal-Mart's top management has made,' Singhal says. 'Company people have a clear understanding that it's a very important aspect of the business. The second thing with respect to culture is that people who see potential risks should be willing to communicate it up the ladder. Often when there's a risk, people don't want to talk about it. So you really have to build a culture where people are very open, even when it's bad news. Without a rigorous approach to risk mitigation and management, any investment made to reach high performance levels could be wasted. Once you create value you need to take action to preserve it. You might make a lot of money, but if you lose it all, what's the point?'

## QUANTUM LEAP FORWARD<sup>12</sup>

Anna Game-Lopata

Inspired by world ranked supply chain management companies, including Li & Fung of China, Arshiya International is a supply chain management company with a difference.

President Paul Bradley told the 2008 Supply Chain Business Forum that the Mumbai stock exchange listed multinational is set to take India and the Middle East by storm.<sup>13</sup>

The two-year old company already has a market cap exceeding US\$350 million. Bradley, who has worked closely with Li & Fung's Dr Victor Fung, told the panel investigating new supply chain business models that he had been approached by another transformational thought leader, Ajay Mittal, from one of India's top business families, to help build a new supply chain model for India. Mittal, Arshiya's chairman and managing director, was faced with a challenge.

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'India is about to rise and the market potential in the Middle East is also growing,' Bradley says. 'In four and a half years, 10 per cent of consumer purchasing in India will take place in retail malls, 800 of which are currently under construction. That will make India the fifth largest retail market globally, equating to more than US\$124 billion in consumer spending.'

Rather than incrementally improving logistics in India, Bradley says that he and Mittal searched the world for the most radical ideas and how they could be integrated. As an example of the results, Bradley says that Arshiya is now 'inside' four separate Indian retailers, including a major group which has outsourced its supply chain to the company.

'Our new 4PL entity is offering Indian CEOs and Presidents the opportunity to have a strike team of supply chain professionals from the Arshiya International fully analyze their business, including mapping current processes and product distribution patterns across their entire networks,' he says. 'After gaining full access to company data for a month, including all its costs, salaries, product portfolio, manufacturing, interest rates, logistics, forecasts, minimum order quantities – everything, – we provide the ideas to completely redesign the customer's supply chain. And we do it for free. But if we can show that we've achieved savings and efficiencies by the end of that month, our customers agree to cede supply chain control to us on a long-term basis, typically three to five years.'

‘If we exceed certain KPIs, customers give us a special bonus each year,’ Bradley adds. ‘If we can find new ways to save money, a client will share part of it with us for the first year. This is a completely new concept for India.’

‘Our clients have very visionary CEOs at the helm who are embracing new approaches to achieve competitive advantage,’ he continues. ‘They provide us with information a traditional logistics company would never usually have access to. There are no hidden spreads, but we charge a management fee which is allocated against our senior management cost, where the real knowledge lies.’

With the exception of a few companies such as Arshiya, the new business models are not being created on a very wide scale. To date, for example, the 4PL model described by Paul Bradley is still largely misunderstood within the logistics industry, both in India and elsewhere. These days, the term usually denotes a kind of ‘super 3PL’ which manages other providers and offers a wide variety of ‘value-added’ services. Internationally recognized supply chain expert and panel chair John Gattorna, whose initiative was behind the invitation-only Forum was one of a team from Andersen Consultants (now Accenture) that shaped the initial 4PL concept in the mid-1990s. He says that it was intended to do away with inflexible contracts, replacing them with a more collaborative, equity-based relationship.

‘You can’t “tender” for a 4PL according to our original concept,’ Gattorna emphasizes. ‘Companies that choose to develop a 4PL based on contractual relationships find it difficult to function, because if difficulties arise, finger-pointing begins rather than focusing on finding a solution.’

According to Gattorna, the true 4PL, or Joint Services Company (JSC) as he prefers to call it these days, is a joint venture between a group of organizations that bring complementary ‘capabilities’ to the table, initiated by two or more companies as the lead owners and, ultimately, controllers of the business. These enterprises might be competitors or have dissimilar markets, but they must have a compatible culture and shared vision.

These businesses form a consortium or joint venture where 3PLs continue to provide the physical assets such as warehousing and transport, but the 4PL manages them. It is, in effect, a non-asset owning management company.

***‘Our clients have very visionary CEOs... They provide us with information a traditional logistics company would never usually have access to.’***

‘As well as 3PLs, junior equity partners in the consortium might include consultants and finance companies,’ Gattorna explains. ‘But every stakeholder has to bring some capability to the party.’

Along with equity in the management company, the relationship requires a 'prenuptial' exit agreement, stating how long the parties must commit before choosing to roll over or buy back capabilities according to an agreed formula. Such an agreement would also contain incentives and rewards to encourage a strong working relationship. Companies place key staff in the new vehicle – personnel who bring strong business acumen, experience and know-how to ensure its proper functioning.

Gattorna believes that, once the new company is working properly, the parties involved can make returns on their capabilities and assets, along with fees and dividends according to their equity holding. In an ideal case, companies would allow the vehicle to manage their assets and infrastructure until such time as they wished to buy back their capabilities.

The fundamental reasoning behind such a structure is to allow companies to acquire instant capabilities and scale quickly. If capabilities are well chosen, including shared infrastructure and assets, companies could substantially cut costs and improve the bottom line through increased volumes. However, it's not difficult to see why the idea hasn't been more broadly embraced. One only has to witness the rapid consolidation in the logistics industry to realize that most prefer the perceived control achieved via acquisitions and mergers compared to the more nebulous benefits of mutual risk and shared reward. The joint services company structure is yet to surface in Australia, and worldwide examples are still few and far between.

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Early attempts at the 4PL structure managed to absorb elements of the concept, but ultimately fell down in various ways. Gattorna highlights Connect 2020, a subsidiary of UK water utility Thames Water, which manages procurement and logistics services for Thames Water in the UK. It was formed as a joint venture with Andersen Consulting (now Accenture) in 1995, and the plan was to add other utilities in following years. Although the consortium still continues it has been unable to attract other utilities because they feared that value would be extracted from them for little benefit in return. Despite this, Connect 2020 has achieved a 10 per cent supply chain cost reduction, a 40 per cent reduction in inventory, a 70 per cent reduction in back-orders, and an increase in customer service levels to over 97 per cent. This is a quantum performance improvement!

Another example is the 1994 joint venture between US-based agricultural machinery company New Holland and Accenture in an 80–20 structure in their Italian operation. Although it was later bought back by New Holland, this was not before the company had made US\$67 million savings in its first seven years, along with a 20 per cent inventory reduction, a 65 per cent increase in operational efficiency, a more than 90 per cent improvement in order fulfilment accuracy and 15 per cent freight savings.

'The dozen or so 4PLs that I've seen around the world over the last decade, including GE Medical Systems, Ford España in Spain, AT&T Wireless and others, are prototypes that we've learned a lot from,' Gattorna says. 'Now is the time to take the model to a new level and a new scale.'

One of the sticking points in the development of the original 4PL (and, later, JSC) was the perceived inability for equity partners to easily move in and out of the arrangement. Gattorna points to the Virtual Network Consortia (VNC), a similar model that presents a solution to this problem.

'Rather than strict equity arrangements, VNC stakeholders form a loose alliance,' Gattorna says. 'They can join and leave the consortium as appropriate, forming a plug-and-play arrangement. In most other respects, the VNC is similar to a JSC. Both models focus on acquiring the capabilities needed at a particular point in time to do a particular job. They provide a particular supply chain solution at speed and at scale.'

'Both utilize highly connected processes across companies and shared investments and incentives, however, in a VNC, everything can be unwound if desired by the major stakeholders,' he adds.

The VNC model seems a good fit for Arshiya. Of the company's structure, Paul Bradley says the answer was to create a 'value chain umbrella' with many different participating companies.

'A partner company can enter any part of the enterprise, but imagine the power when you connect them all,' he enthuses. 'Arshiya is also affiliated with two US multi-billion-dollar companies, with more strategic alliances likely to evolve. We can take the best global practices and networks, yet drive the company as an Indian multinational.'

Under the 'umbrella', Arshiya customers can access product distribution capacity across India, FTWZ infrastructure and rail networks, global shipping services (air and ocean), project logistics services, standalone IT and 4PL supply chain capabilities that can adapt to changing requirements in any market.

Unlike any other 4PL, Arshiya owns its own IT network and intellectual property through Singapore-based company Cyberlog.

'Arshiya might have ten different warehouses in India with completely different operators, but customers can go online using the Cyberlog system and see the product on rack three, level two of a particular warehouse with full visibility,' Bradley explains. 'We're a single point of contact. The IT system links several warehouses yet they're all different companies. We interface to SAP and INTRA but we have no licence restrictions. With hundreds of

programmers, we can design new IT systems any time we want and our costs are controlled.'

While Arshiya grows its business in India and the Middle East, Australian panelist Brett Higgins of AMP has identified an opportunity to transform the local tourism industry, using a variation of the VNC model.

'There's no single source of truth for tourism supplier information,' Higgins says. 'Despite the plethora of choices, customers can't easily plan, select and purchase travel goods or services.'

Higgins's idea, to be developed within his own travel services company, XYZ Travel, is to build collaborative supplier relationships locally and go to market nationally.

'Suppliers of transport, accommodation, attractions, and tour operators need to be streamlined so that wholesale information is more easily accessible to retailers, including those online,' he says. 'Capabilities need to be assembled to achieve rapid development and expedited entrance to the marketplace.'

In order to achieve this, Higgins says that XYZ Travel will need to establish the right operational culture and consider the key management levers.

'Strong brand awareness and distribution through travel agent shop fronts can be achieved through strategic alliances with airlines and other resource partners,' he maintains. 'However, visionary leadership, high business acumen, corporate intellectual property and an effective supply chain target operating model will be essential.'

'I'll be looking for accelerated business advancement, an instant distribution channel and an innovative flexible business culture,' he adds. 'Such a business will require an industry solution focus and needs to deliver high customer satisfaction. High partner commitment will be incentivized through equity in the business, but clear assessment criteria and a process for selecting strategic partners will need to be developed. This must include detailed capability requirements with a fair return for each, and provision for the entry and exit of partners.'

***John Gattorna argues that regulatory restrictions are no longer an excuse to avoid pushing the boundaries in search of new business models.'***

It's difficult to imagine businesses in the current international business climate forming such alliances without the desire to guard perceived competitive advantages. General Manager of Supply Chain Strategy and Procurement for the Fonterra Dairy Cooperative Group and panelist Nigel Jones reflects this view.

He says that, while Fonterra appreciates the need to find the right business model to improve performance going forward, the company is hesitant to deliver increased control of its intellectual property (IP) to third parties along the supply chain.

‘Seasonal fluctuations in dairy production, low visibility, underutilization, a small talent pool and an inability to justify investment is causing costs that lower the international competitiveness of New Zealand exporters and importers,’ Jones says. ‘At Fonterra we’re faced with the problem of finding a way to deliver value while still retaining our IP. We see a further complexity arising in that if we were to outsource our IP, we may lose the value that our volumes provide. Until now, Fonterra has been unable to find a 3PL partner that can get its head around all the issues involved.’

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Jones also observes that it’s hard for Australian companies to know where to draw the line in terms of what can be done without breaking the Trade Practices Act, especially in relation to working with competitors.

According to principal lawyer, Australian Competition and Consumer Commission (ACCC), and panelist Alexandra Merrett, it’s often (though not always) possible to structure a collaborative venture or new business model in a way that achieves the desired objectives without contravening the Trade Practices Act.

‘The ACCC would counsel parties considering collaborating with their competitors or attempting new business models to first seek advice from lawyers with competition expertise,’ she warns. ‘This is a very technical area of law. Rather than approaching lawyers with a structure already in mind, it can be preferable to explain to your legal team exactly what you are trying to achieve and leave it to them to consider ways in which you can do it.’

Merrett says that it’s also worthwhile remembering that, even where particular outcomes look as though they may contravene the Trade Practices Act, there are special ‘exemptions’ available.

‘The most likely form of exemption relevant to collaborative arrangements between competitors or possibly new business models, would be an authorization, which is only available upon application to the ACCC and requires demonstration of sufficient “public benefit” arising from the arrangement to outweigh any competitive detriment,’ she explains. ‘Obtaining authorization can be time-consuming and expensive, but – depending upon the scope of the collaboration or new business model – definitely worth it, particularly when compared to the very high penalties that apply to contraventions of the Act.’

‘The bottom line, though, is that this is a very complicated area of law, so parties need to be prepared to spend money on good legal advice,’ Merrett

says. 'Getting it wrong can be extremely expensive, not to mention bad for a company's reputation.'

Despite this, John Gattorna argues that regulatory restrictions are no longer an excuse to avoid pushing the boundaries in search of new business models.

'A pressing factor for change is that operational excellence has a diminishing returns effect,' he says. 'After a period of time, the elements combining to drive performance such as transportation and warehouse management yield lesser profit – even with continuing, or greater investment. Dynamic alignment enables a rejigging of what you do internally to face up to your market better. But even having done this there's still a limit to how far you can go by way of improvement.'

'There are many opportunities for consortia to pool huge volume across industries. In countries such as Australia and New Zealand, it may be the only way we can build scale to compete with the bigger companies overseas.'

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While Gattorna admits that the idea requires a leap of faith from a CEO willing to break the mould, he argues that, if a company were to build an entity such as a VNC, it would potentially be looking at a 30–40 per cent net improvement in operating performance after set-up costs.

'In conjunction with realignment initiatives at the enterprise level, industry leaders must seek new multi-enterprise execution models that deliver change at speed and scale,' he says. 'While it may take increasing pressure on the bottom line before companies are willing to change, we've gone as far as we can with operational excellence. We now need a quantum leap in another direction to move forward.'

## NEW MANTRA<sup>14</sup>

Anna Game-Lopata

In 2007, despite unprecedented demand, export losses due to coal chain capacity constraints were in excess of \$2 billion per annum in New South Wales alone. General Manager of Xstrata Rail and Ports, and panelist Anthony Pitt told the 2008 Supply Chain Business Forum panel on achieving requisite collaboration that the resulting vessel queues cost the Hunter Valley and Goonyella coal chains more than \$700 million per annum.

‘The delivery of new rail and port infrastructure continues to be a constraint to realizing full export potential across Australia’s coal chains,’ Pitt told the invitation-only forum, an initiative of internationally recognized supply chain expert John Gattorna. ‘Our industry in the Hunter Valley has only managed an 8 per cent growth despite more than \$500 million in new infrastructure. Compare this with a growth of 75 per cent in thermal coal exports achieved by Indonesia in the last four years.’

Remarkable, by contrast, is the success of the Hunter Valley Coal Chain Logistics Team (HVCCLT) in achieving productivity gains using existing infrastructure. The first of its kind in Australia, HVCCLT is a collaborative organization responsible for the daily planning of all Hunter Valley coal industry exports. Created as a trial in 2003, the Logistics Team was set up by Pacific National (PN) and Port Waratah Coal Services (PWCS) as a response to increasing demand from the industry to improve capacity.

Former HVCCLT General Manager Anthony Pitt says that the expectation from inception was to deliver significant capacity by running coal chain operations as a system rather than as a series of component parts as was previously the practice.

‘The short-term goal of increasing throughput has been realized, along with the longer-term objective of providing investment planning advice to the industry,’ he says. About 90 per cent of the Logistics Team’s resources are put towards improving system capacity.

‘The HVCCLT presided over a spectacular 20 per cent increase in productivity from existing infrastructure,’ Pitt says. ‘The vast bulk of that benefit is generated through its cooperative model, which enables latent capacity to be unlocked through greater coordination of activities like maintenance programmes at the track and ports.’

‘In terms of the longer-term initiative, the HVCCLT advisory service directly contributes to the efficiency of members’ capital expenditure across the entire system,’ Pitt enthuses. ‘Members are modifying and even adding

new infrastructure initiatives in the knowledge that those changes are in the interests of the coal chain as a whole. The team has also helped prevent investment in infrastructure that might otherwise be underutilized.'

On a handshake, PWCS and PN agreed to co-locate their planning teams to enable more effective communication and the generation of new ideas about how to increase system capacity. Joined by Newcastle Port Corporation, the trial was expanded and formalized in 2005 as a joint venture with stated objectives and governance.

HVCCLT members now include PN and QRNational as the train operators, Australia Rail Track Corporation and Rail Infrastructure Corporation as the track owners, PWCS as the operator of cargo assembly and ship-loading services, and Newcastle Port Corporation which manages the vessel movements.

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The functioning of the HVCCLT collaborative system completely relies on the voluntary participation of its members. However, as Anthony Pitt explains, the truly cooperative venture does not legally compel any of the group to cooperate in daily planning or to comply with associated instructions.

'I won't say that it was without its challenges,' Pitt admits, 'but everyone quickly came to the conclusion that it was the only sensible way to operate the coal chain. The profit generated from this approach to planning was immediate.'

Despite strong pressure on member organizations resulting from bullish growth forecasts from the industry, Anthony Pitt is confident the collaborative model provided by the HVCCLT will prevail.

'In the current marketplace, where the demand for coal out of Newcastle is exceptionally high, the need for more capacity certainly creates an environment with the potential for tensions and competition,' he says. 'But I think the success of the model has been the glue that's kept the team together, and is leading to greater cooperation into the future.'

***'On a handshake, PWCS and PN agreed to co-locate their planning teams to enable more effective communication and the generation of new ideas.'***

So successful is the HVCCLT model that it has been widely recognized and recommended to other supply chains by the Prime Minister's infrastructure taskforce.

What, then, is behind the wider failure of stakeholders to manage the rapidly growing infrastructure capacity challenge?

According to Anthony Pitt, the ‘common objective’ ingredient, essential to the success of collaboration, is missing.

‘This is mainly caused by the fragmented ownership structure of coal chain stakeholders’, he says, ‘which creates a misalignment of agendas.’

He explains, ‘On one end of the scale, industry-owned coal-loading terminals such as Port Waratah Coal Services and the Newcastle Coal Infrastructure Group (NCIG) are the only entities in the coal chain

investing ahead of demand. Their shareholder and customer incentives are perfectly aligned, but they have no long-term contracts to underpin investment.’

***‘Where partners find their subcultures are not a natural “fit”, one partner, often the supplier, needs to adapt to mirror the other, usually the customer, for a collaborative relationship to be sustainable.’***

‘The lack of long-term contracts for track and port means future demand is invisible,’ Pitt says. ‘It also means infrastructure providers are forced to second-guess the industry. Since each infrastructure provider holds its own view of demand, making investment decisions is extremely difficult.’

‘On the other end of the scale, ARTC, the government-owned rail infrastructure provider is focused on the Weighted Average Cost of Capital (WACC) and stranded asset risk,’ Pitt maintains. ‘Apart from political risk, the ARTC is unlikely to face any significant consequence from non-investment.’

‘Meanwhile, the train companies are functioning in a highly competitive market. They invest based on contracts with customers, but, often, the contracts aren’t linked to what the coal chain can deliver as a system. For example, in 2007, 112Mt of contracts were sold in a system that can only manage a maximum of 95Mt.’

In addition to aligning objectives, principal of Carpenter Ellis and panel chair Deborah Ellis says that achieving requisite collaboration requires the parties involved to have, or develop, appropriate subcultures and the capability to sustain them.

Based on John Gattorna’s theory of the four generic basic types of organizational cultures and the various combinations of these that are possible,<sup>15</sup> Ellis shows that, upon an initial assessment, the subcultures of the PWCS and PN diverge from other stakeholders in the coal chain.

‘PWCS and PN share alignment with each other, sitting in between the “hierarchical” and the “rational” cultural types, while the Port of Newcastle, ARTC and Queensland Rail exhibit a purely “hierarchical” organizational culture,’ she says. ‘Of the four types, both the “hierarchical” and “group”

subcultures have an internal focus. However, while the “group” subculture thrives on synergy and teamwork with the aim of achieving cohesion, the “hierarchical” subculture is motivated by systems, measurement and control. It seeks ordered outcomes.

‘The “rational” and “entrepreneurial” subcultures share an external focus, but the “rational” subculture is motivated by action, objectives and energy to achieve results, while the “entrepreneurial” subculture is more focused on innovation and flexibility to achieve growth, Collaborative groupings ultimately need to reflect the dominant buying logics of their customers.

‘Where partners find their subcultures are not a natural “fit”, one partner, often the supplier, needs to adapt to mirror the other, usually the customer, for a collaborative relationship to be sustainable.’

‘To make matters more complex, aligned subcultures might not always mean a perfect fit,’ Ellis adds. ‘In the case of PWCS and PN, where the subcultures sit between “hierarchical” and “rational”, the relationship may only succeed with a results-oriented and dynamic collaborative model.’

Essentially, Ellis argues, establishing a collaborative relationship requires strong leadership to pull the partnership together initially, as was the case for the HVCCLT, when PWCS and PN agreed to take the first steps.

‘Once the opportunity has been identified and a direction agreed, effective leadership is 90 per cent of the ingredients required to enable the implementation of a collaborative arrangement,’ Ellis says. ‘Process and systems become far more important as the relationship is being embedded and institutionalized, with leadership becoming only 15 per cent of the ingredients required to keep the partnership flourishing.’

Panelist Professor Ivan Su of Soochow University in Taiwan points to another kind of collaborative model, successful because of the consistent leadership contributed by Japanese exporter and supply chain company ITOCHU Corporation.

‘With a business philosophy of customer satisfaction and joint growth with stakeholders and the general public, ITOCHU has expanded its thriving Family Mart business into Taiwan, Thailand, Korea and more recently China,’ he says.

According to Professor Su, the success of ITOCHU’s Family Mart chain can partly be attributed to a clear understanding of market demands for 24-hour convenience shopping and having a successful home market business and supply chain.

‘For ITOCHU, collaborative efforts have always been underpinned by persistently developing local knowledge and the right model for Asian business development,’ he says. ‘Cultural alignment and leadership is reinforced by rotating company executives and the frequent exchange of key operational personnel in the supply chain. This ensures the transfer of the right business experience and knowledge to the regional firms under one central orchestrating mechanism.’

Importantly, another factor in ITOCHU’s collaborative success is its approach to fostering local motivation and loyalty through providing regional Family Mart stores and their service providers with an equity position in the business.

‘While ITOCHU Corporation holds 61 per cent of its rapidly growing Taiwan-based Family Mart business (now the second largest CVS in Taiwan), Taisun, along with other local firms, holds the other 20 per cent,’ Professor Su explains. ‘Family Mart Taiwan’s service provider, the Taiwan Distribution Company (TDC), established in 1989, is 50 per cent owned by Family Mart Taiwan and 20 per cent by ITOCHU Company and other local firms.’

Despite the obvious benefits of collaboration, panelists agree that the concerns Australian organizations have about losing competitive advantage through opening themselves up to deeper partnerships is impeding development.

***‘John Gattorna says: ‘the new mantra for Australian business should be “to compete in the market, but cooperate in the supply chain”.’***

***‘Once we psychologically step across the line to that stage of maturity we’ll very quickly rise in world standings.’***

John Gattorna argues that the energy and thought that has gone into competitive analysis has been excessive, taking the collective eye away from the execution of strategy.

‘This area of darkness inside the business has to be opened up by people who aren’t afraid of what they might find,’ he says. ‘Rather than being distracted by competitors, we need to concentrate on the forces within, develop appropriate subcultures and communications and genetically re-engineer our businesses internally.’

Gattorna also believes that businesses have misunderstood the role of collaboration.

‘We still have this view in Australia and elsewhere that collaboration will fix everything,’ he says. ‘As we move from “lean” manufacturing to “lean” supply chains, people need to choose those partners with which they really want a long-term mutually beneficial relationship. For the rest of your customers, you simply use another formula.’

According to Arshiya International president and panelist Paul Bradley, collaboration means admitting that there are ways to improve your business beyond what you can do yourself.

‘Organizations need to build relationships the Asian way, with trust, shared visions and even with competitors,’ he says. ‘They then need to set up rules of engagement, which is always done at the top.’

Bradley argues that smart businesses use technology to keep control.

‘You use your ideas and human talent to drive the competitive advantage,’ he says. ‘If you have the courage, there are ways you can collaborate that are of mutual benefit on fixed assets and fixed structure.’

By way of example, Bradley points to his Indian-based company Arshiya, which is building free trade warehousing zone parks at major ports across India, and will be open to both customers and competitors to enable aggregation.

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‘Instead of competing, imagine smaller, mid-sized warehouses leasing space out to retail competitors,’ he enthuses. ‘Being neutral, Arshiya will put in its own, fully-owned IT system and people to manage the warehouse and protect confidentiality. The warehouses, which are currently losing money due to excess capacity, will gain the business we bring in for them. It’s genuine collaboration. It’s a win-win model.’

‘The question is,’ Bradley adds, ‘do we want a fixed logistics structure for moving products between A and B, and holding information within, or do we want to build dynamic supply chain models that can shift and adapt continuously as the market inevitably changes?’

‘As cost of capital changes, as labour changes, as currency fluctuates, we increasingly need dynamic supply chain models with full, transparent control of product flow. It’s no longer theory; it’s done by companies that collaborate.’

In terms of the coal chain, this amounts to a projected 50 per cent growth in export volumes over the next five years.

The predicament also rings true for other industries.

‘The new mantra for Australian business should be “to compete in the market, but cooperate in the supply chain”,’ John Gattorna says. ‘Once we psychologically step across the line to that stage of maturity we’ll very quickly rise in world standings.’

## SECRET SAUCE<sup>16</sup>

Anna Game-Lopata

In 50 years, the Costa Group, Australia's largest private wholesaler/distributor and exporter of fresh produce, hasn't suffered a single industrial dispute.

Managing director and panelist Simon Costa told the 2008 Supply Chain Business Forum panel on leadership, vision and innovation that, while staff turnover in the sector can be as high as 30 per cent, Costa remains below 1 per cent.

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'Productivity and service levels are high in any week,' he says, 'with staff consistently averaging 0-3 errors per million cartons.'

Costa believes that the key to achieving supply chain execution excellence is a reversal in the traditional 'systems, process, people' model.

'There's a fundamental difference in the way we run our business,' he told the invitation-only Forum, an initiative of international supply chain expert John Gattorna. 'Through our Character First programme, we focus on developing the right people. Systems and process follow. The resulting service levels have prompted our current growth into grocery, freezer, dairy and meat distribution.'

Visitors to Costa sites often find it difficult to believe that a performance above industry standards has been produced without financial incentives.

'Our staff receive normal hourly rates of pay,' Costa says. 'It's all about feeling part of a team that's really achieving results. At the end of the day, people work for money, but pride in doing a good job comes equal first or close second.'

So important is the Costa Group philosophy of Character First that it has become a company campaign. Every month employees across the business stop work for almost an hour to talk about character. Qualities such as dependability are discussed in relation to life and the workplace. People who've benefited the company by demonstrating a particular trait are recognized and awarded.

'There were managers who questioned the cost of stopping work each month, because they couldn't predict the savings,' Costa says. 'The costs of inefficiencies and rework simply fell away. Once the culture was right, profit took care of itself. But without leaders living it out front, Character First could never have taken hold.'

Current research bears this out, according to panel chair and emeritus professor at Macquarie Graduate School of Management, Roger Collins.

'The most successful companies are those where senior leaders communicate with their people at least 30 times a year, be it face-to-face or through videoconferencing,' he says. 'They talk to staff about the purpose of their organization. "Why do we exist? And furthermore, what are our goals and what's our strategy? How are we going to achieve those goals?" And finally, as Simon Costa suggests, they discuss the values that guide company behaviour.'

'Senior-level management must also communicate performance,' Collins adds. 'For example, how are we going against our objectives? What's the gap?'

While the role of corporate leadership in setting the context within a business is essential, Collins maintains that it isn't enough in itself.

'I think we've now reached a turning point in our understanding of leadership,' he says. 'More organizations are moving away from the concept of leadership as an individual contribution. They're now thinking of it as collective behaviour – or "distributed leadership".'

According to Roger Collins, distributed leadership functions at two further levels, beyond corporate management.

"Local or direct" leadership occurs at middle management level with managers who have responsibility for staff who touch either suppliers or customers in the supply chain,' Collins explains. 'At the local level, we know that the role of the leader is more productive if managers pay attention to what staff members do right rather than what they do wrong. They've got to find ways of giving positive feedback at least three times more frequently than negative feedback if they're going to win the hearts and minds of their people and create high engagement. Staff engagement creates the third level of distributed leadership – that of self-leadership. This is where staff engagement at all levels of the organization allows for decision-making that's consistent with where the organization's going.'

'Engaged employees not only talk about their organization in a positive way, opening opportunities for future talent attraction, but they're also less likely to leave. In terms of turnover, we find people are more likely to leave a job if their manager's no good, not because their job isn't challenging. Finally, engaged employees will give you more than you ask; they'll go over and above what's expected of them in their work.'

'Essentially, distributed leadership starts with senior leaders who then engage local leaders in a way that leads to self-leadership. It's about having employees that don't require supervision or direction because it's clear to them what

they have to do, and they have the engagement and the commitment to be willing to do it.'

Clearly, recruitment forms a major component of this process. Roger Collins says that it's critical to hire people whose values are aligned to those of the organization. The Costa Group takes this philosophy further.

'Management literature often says "People are the company's most important asset, look after your people",' Simon Costa says. 'That's wrong. It's the right people who are essential to a business. The wrong people will bring you undone every time.'

'We believe there's nothing about the industry that can't be taught,' he explains. 'As interviewers we're the slowest in the world, incorporating numerous character-based questions. Whatever it costs, we get it back – with the right employees who don't leave.'

Panelists recognize that a very intimate link exists between strong leadership and the innovation required for global competitive advantage. Former Macquarie Graduate School of Management dean and panelist Roy Green<sup>17</sup> argues that knowledge creation and diffusion are at the core of economic activity.

'Innovation is a complex, non-linear process with multiple sources,' Green says. 'However, recent data shows that investment in research and education is a key driver of scientific output internationally – an area where, historically, Australia has been found wanting.'

'We're seeing a reversal of the decades-long deterioration in Australia's terms of trade, but for how long? Currently in Australia a paltry 4 per cent of GDP is invested into higher education, research and development. Compare this with over 6 per cent in Finland and close to 7 per cent in Denmark.'

***'At the end of the day, people work for money, but pride in doing a good job comes equal first or close second.'***

As it is a country increasingly losing its manufacturing base, Green believes that it's pertinent to compare Australia's corporate and governing mindset with that of Ireland, which has turned a similar predicament into an advantage.

'Ireland currently has the largest global percentage of high technology industry exports,' he says. 'At close to 60 per cent this is higher than the US and the OECD. Australia, by contrast, has less than 20 per cent high technology exports.'

What is causing this gap? Roy Green quotes the Irish National Development Plan of 2000 as a clue: 'There is a strong link between investment in the research and innovation base of the economy and sustained economic growth. The accumulation of "knowledge capital" will facilitate the evolution of the knowledge-based economy.'

He continues, 'It's also clear that developing the knowledge required for innovation requires successful partnerships through strong leadership which evolves through structured collaboration, networking, spillovers, and diffusion within and between organizations. According to research by Ecotec, the top critical success factors for global innovation include networking, innovative technology and human capital respectively.'

Green describes high-performance management and work systems as 'clusters of effectiveness attributes' which release creativity.

'While our institutions are essential components of global innovation and economic performance, technological adaptation and workplace learning depend on human capital and organizational effectiveness which Australia is yet to fully develop.'

Panelist Dina Oelefsen, Principal of Leadership Development (SA), concurs, pointing to still prevalent misalignments within our institutions as a major cause of cost, uncertainty, reluctance to make capital investments and, ultimately, as an inhibitor of innovation.

'Where relationships are weakening and there's increasing conflict between teams, it's a sure sign of gaps in the leadership,' she says. 'Misalignment occurs in two main forms. Where structural incompatibility exists, slow decision-making, double messages and communication breakdowns contribute to diffuse work levels and red tape.'

'Where values are incompatible, power imbalances, lack of transparency and perceived hoarding of value can result in a lack of trust which erodes effective functioning and the ability to be innovative.'

Roger Collins believes the 'ground up' approach, common in supply chain businesses, sometimes works against them.

'Organizations go through many stages of growth from start-up to maturity,' he says. 'Sometimes you need different leaders at different stages in the life cycle of the company. The very person who starts the company may not be the best person to grow it or manage it in difficult times.'

An extension of this idea is that supply chain leaders are failing to delegate tasks they once performed to make room for strategic thinking.

'Anxieties rise when we move outside our comfort zone or areas of competency, and no one wants to look stupid,' Dina Oelefsen says. 'Leaders need to stop meddling and focus on thinking long-term, and rewarding contribution rather than output, and contracting clearly to empower their people both inside and outside the organization.'

Like Roy Green, Roger Collins argues that successful supply chains require the kind of collaboration and coordination that can't be achieved without high levels of trust and communication.

'I think too often we assume that somebody who's good in one industry will be good in another but the evidence suggests that's not the case,' he says. 'Unless a chief executive understands the unique demands of good supply chain management, they probably won't make it work.'

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But what are the hallmark qualities of leadership? Is there a secret sauce?

'We tend to think of attributes like intelligence and personality as critical to strong leadership, but this doesn't stand up under the research,' Roger Collins says. 'The qualities that are cited most frequently are authenticity and humility.'

'People really want to know if their leader is genuine,' Collins explains. 'They ask themselves "Does this person do what they say? Are they fair dinkum?" And if they're not humble, the risk is that they'll eventually destroy themselves.'

Panelists agree that successful leaders realize that supply chains are built around people and interpersonal relationships, rather than computer systems, trucks, trains, boats and planes.

'Supply chains are very vulnerable because they're so complex and systemic,' Roger Collins says. 'Under these conditions, success comes from the day-to-day consistent commitment of people working together in the interests of the customer. You don't achieve that sort of behaviour from management; team work comes from leadership and that's the difference. Management will help you plan and control things, but leadership engages the hearts and minds of your people.'

Says Simon Costa: 'My sense of pride in the Costa Group has nothing to do with turnover or growth. When I visit company sites, the number of people who want to thank me and talk about opportunities provided by our business is incredibly encouraging.'

## THE PRICE OF LIFE – TO DO NOTHING IS NO LONGER AN OPTION<sup>18</sup>

Anna Game-Lopata

The 2008 Supply Chain Business Forum finds that humanitarian logistics is undervalued and underresourced, with only a handful of aid organizations prioritizing the creation of high-performing logistics and supply chain operations.<sup>19</sup> Three-year-old Pascaline lives in a village in Rwanda. She was diagnosed with Type 1 diabetes when she was 12 months old, and spent a year in hospital. She is now cared for by a local health centre, but, without the supply chain providing her with insulin and monitoring, she will die. President of the International Diabetes Federation, Professor Martin Silink, told the 2008 Supply Chain Business Forum that diabetes is becoming an epidemic, with global cases expected to hit 380 million in 2025. This is up from 246 million in 2007.

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The worldwide cost of diabetes in 2007 was US\$232 billion. In 2025 it's predicted to reach US\$302 billion. With 70 per cent of cases in developing countries, Silink told the invitation-only panel addressing the rise of the humanitarian supply chain, that diabetes is more than ever a disease of poverty.

Despite this, over 70 per cent of the world's diabetes-related health-care costs are spent in the more advantaged nations.

'In many developing countries the most common acute complication of diabetes in childhood is death,' Silink says. 'These deaths are all preventable. To do nothing is no longer an option.'

According to international humanitarian logistics consultant and panelist Michael Whiting, the Indian Ocean tsunami of December 2004 proved beyond doubt that logistics is a vital component of humanitarian aid.

'Every year 250 million people are affected by natural disasters and a further 45 million people by the devastating effects of armed conflict,' Whiting says. 'The twenty-first century has brought with it earthquakes, tsunamis and volcanic eruptions and the indications are that disasters are happening more frequently and often several at once.'

***'Humanitarian logistics fails to attract the required level of funding and support to provide adequate relief efforts around the world.'***

'In general however, humanitarian organizations are probably about 15 years behind their private sector counterparts, who realized the importance

of a efficient supply chain a long time ago, particularly given the increasing opportunities to “go global”.

The challenge facing both commerce and humanitarian agencies is identifying, recruiting, training and retaining logistics personnel of the right calibre.

‘For most agencies, high employee turnover rates, fragmented technology, poorly-defined manual processes and lack of institutional learning over time result in relief operations that are not as efficient or effective as they could be,’ Whiting admits. ‘The bottom line is that relief to the vulnerable is then either delayed or delivered with reduced effectiveness.’

Whiting believes that, as a result of its perceived lack of importance, humanitarian logisticians in many organizations do not have the competence required to handle complex emergency situations.

‘Humanitarian logistics fails to attract the required level of funding and support to provide adequate relief efforts around the world,’ he says. ‘In some organizations, such as IFRC, WVI, UNHCR, UNICEF and WFP, there are several excellent, formally trained logisticians who happen to work with organizations that offer them job security, good pay and recognition. But this is not the norm.’

‘All too often, humanitarian operators have no option but to work with essential staff only, offering, in most cases, employment packages that fail to attract suitably qualified staff to support services roles. They are forced to work without any rolling stock and the information management systems they desire.’

Whiting points to the focus on short-term direct relief as a pattern that discourages investment in the very systems and processes needed to reduce expenses and make relief more efficient in the long run.

‘This often results in logistics and other support services not having adequate funding for strategic preparedness and infrastructure investment such as information systems,’ he says. ‘In this context donors are the problem. The fact is that donors generally do not fund planning activities, they fund programmes. This situation shows signs of changing, but the change is slow. Until donors are prepared to contribute funds to logistics contingency planning and infrastructure there will be little change.’

Whiting argues that improvements to logistics and supply chain management performance will enable the significant savings required to fund logistics infrastructure improvements, which in turn will enable further efficiencies.

'It is an accepted fact that in emergencies, supply chain costs can represent up to 35–45 per cent of the total cost of operations,' he explains. 'Compared to this, normative state operations are of the order of 15–20 per cent, with indications in 2007 that the average cost in Europe came closer to 10 per cent of the total cost of operations. This represents a spread of between 20–25 per cent of the total cost of humanitarian logistics operations.'

In 2005 an estimated US\$18 billion was raised by the international community and public donations for humanitarian assistance against an estimated US\$10 billion raised in 2000. Allowing for the Iraq/Afghanistan (2003) and Indian Ocean tsunami (2004–05) spikes, humanitarian aid levels reveal a steady upward trend.

'Judicious use of best-practice and cutting-edge supply chain management practices presents a potential cost saving by closing the gap between emergency response supply chain costs and normative-state supply chain costs,' Whiting says. 'The margin of 20–25 per cent inefficiency on humanitarian aid of US\$7 billion represents US\$1.4–1.75 billion per annum.'

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'A determined drive to achieve even a 1 per cent saving across the board would yield between US\$140 and US\$175 million per annum; figures that should galvanize the most jaundiced donor or aid agency official.'

***'Diabetes is becoming an epidemic, with global cases expected to hit 380 million in 2025. This is up from 246 million in 2007.'***

World Vision is one aid organization that in 2006, served more than 100 million people in 97 nations, including 3 million children. A respected Non-Government Organization (NGO), World Vision raised US\$2.1 billion in cash and goods for its work in that year

World Vision director of Global Supply Chain Management and panelist Gerard de Villiers agrees that the lack of supply chain management skills within the organization presents a considerable challenge.

'In 2006, World Vision's tsunami response was definitely hampered by inadequate supply chain management expertise at all levels,' he says. 'The organization needs to develop better supply chain structures with defined roles and responsibilities.'

'Problems were also caused by communication difficulties and lack of visibility,' he adds. 'The lack of a non-food item tracking system led to the adoption of the commodity tracking system with less than ideal results. Inadequate understanding of WV policies resulted in some inappropriate procurement decisions and a failure to take advantage of outsourcing opportunities.'

Despite this, de Villiers points to successful partnerships with local merchants and air and sea freight carriers that ensured supplies were available, at fixed prices.

‘Having supply chain management expertise on the ground was a big positive,’ he says. ‘The establishment of a central warehouse helped ease local supply chain delivery issues, enabling us to make good use of food commodities, gifts in kind, and non-food items.’

De Villiers asserts that the involvement of numerous parties in emergency response poses one of the most significant challenges to the coordination and efficiency of aid, and the experience of Logistics Recruitment’s group managing director and panel chair Kim Winter attests to this observation. Winter, who took it upon himself to play an active role in the private-sector response to the 2004 tsunami, has been recognized by the UN and the Sri Lankan government for teaming up with DHL, Dexion and Toll Holdings to deploy a team of logistics specialists during the Colombo airport heavy-lift operation, which enabled essential supplies to reach victims of the disaster.

Although he approached the project with hard-edged capability, Winter says that humanitarian supply chain management comes down to either saving lives or counting bodies.

‘I contacted 42 NGOs to offer my services in recruiting logistics and supply chain expertise to the region,’ he says. ‘Not one of them responded.’

Winter was eventually contacted by the World Economic Forum Disaster Recovery Team who asked him to lead Australia’s tsunami response. He has recently been invited to represent the Australian supply chain sector to establish enhanced protocols for best-practice operations during sudden-onset humanitarian disasters.

Michael Whiting argues that collaboration and coordination has improved since the tsunami crisis and the subsequent recovery and rehabilitation programme. Implementation of the findings of the Humanitarian Response Review (HRR) in August 2005 led to the introduction of a new approach: the ‘cluster’ concept, much like that suggested by John Gattorna in Chapter 9 of this book for private-sector supply chains.

In the ‘cluster’ concept, individuals from a variety of organizations work together as a group to share information rather than functioning as ‘silos’ through their organizations alone.

‘The very introduction of the clusters at field and headquarters level has brought about closer coordination and collaboration between UN agencies themselves, between UN agencies and NGOs, and between NGOs,’ Whiting says.

'In 2005, recently published studies revealed that between 48 and 58 per cent of all known humanitarian funding flowed through NGOs,' he continues. 'However, the HRR, from which the cluster concept evolved, is still seen by many as a creature of the UN. 'Cooperation between organizations in a meaningful way exists and is increasing, but, without the substantial buy-in of a larger number of NGOs and intergovernment organizations, the effectiveness of the cluster approach will be limited.'

'A major issue that arises again and again is the seeming inability of the humanitarian world to learn from past experience,' Whiting goes on to observe. 'The intensity of relief efforts, high staff turnover (as much as 80 per cent during the response to the 2004 Indian Ocean tsunami) and the crisis-oriented nature of disaster response creates an environment in which there is endemically a lack of institutional learning.'

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'Post-crisis, aid workers are immediately assigned to the next mission, leaving no time to reflect or focus on possible improvement. There's also a reluctance to collaborate and share information, which results in the inability to systematically learn from mistakes from one disaster to the next.'

While there's no silver bullet, panelists believe that dynamic alignment is an essential first step to bring about an improvement in the delivery of appropriate and timely humanitarian aid.

'Dynamic alignment is vital to aid effectiveness,' Whiting says. 'Beneficiaries, the United Nations, NGOs, development and implementing partners, together with other stakeholders, must embrace the same humanitarian relief principles and objectives and agree to work together to effectively assist in emergency and humanitarian disasters.'

## SUSTAINING GAIA<sup>20</sup>

Anna Game-Lopata

The earth's capacity to sustain the activity of people is shrinking fast.

Associate director of sustainability for the Portland Group and chair of a panel examining the essence of sustainability Mark Reynolds told the 2008 Supply Chain Business Forum that by using a simple resource accounting tool<sup>21</sup> it's possible to ascertain that, in 1985, our ecological footprint, or the land and water area we use for resources and waste disposal, exceeded the capacity of the biosphere for the first time

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In 2008 the human population is now consuming 25 per cent more than what the earth's long-term biocapacity can give. By 2030 this figure will reach 50 per cent.

'Biocapacity is expected to decline further as we overload or exhaust some resources,' Reynolds says. 'For example, our dependence on fossil fuels has grown ninefold since 1960, with rich countries having the greatest footprint.'

***'The earth's capacity to sustain the activity of people is shrinking fast.'***

'Cheap energy has enabled the tremendous growth in goods and services we have enjoyed for the last half-century, but as we're all aware, the situation has been changing for some time. As developing nations achieve greater economic prosperity, the challenge will grow exponentially, given the sheer number of people in those countries.'

Reynolds told the invitation-only Forum, an initiative of internationally recognized supply chain thought-leader expert John Gattorna, that 90 per cent of the human ecological footprint is made up of supply chains delivering food, goods and services.

'Goods and services include everything we buy – cars, TVs, toys, furniture, haircuts, holidays, concerts,' he explains. 'Supply chains are therefore powerful vehicles to drive sustainability.'

Supply chain director for George Weston Foods and panelist Maurice Sinclair says that consumer demand for processed food is a significant contributor to Greenhouse Gas emissions (GHG).

'The growth of processed food production incurs longer travel distances, changed chemical states, extra packaging and higher water content,' he says. 'By default it impacts on GHG greater than products consumed in a natural state.'

By way of example, Sinclair points to the production of a can of baked beans, which has a supply chain extending back to the iron ore mined and procured to produce the steel cans, the forests and paper mills used for the labels and, of course, to the farming of the beans.

'It also involves the logistics operations between the manufacturers who package the beans and retailers who sell them,' Sinclair says.

'In addition, it's pertinent to remember Australia is expected to generally receive less rain than it has done in the past,' he reasons. 'The dispersal of that rain will impact on our sheep and wheat belt and other major food producing regions.'

'Achieving sustainability in the supply chain is not simple,' he adds. 'There are many areas to consider. However this should not dissuade us from moving towards a greener supply chain environment.'

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Panelists agree that sustainability is a system condition; it must be considered through the end-to-end supply chain, and collaboration is necessary in order for it to flourish.

Link Strategy Principal Alice Woodhead has completed several collaborative projects with producers aiming to reduce the carbon output of their operations. The Sugar Link Project is a significant example.<sup>22</sup>

'The project aimed to help develop a shared vision for a sustainable sugar supply chain in NSW,' Woodhead says. 'With the burning of sugar cane viewed as dangerous and negative for the environment, the strategy of the project was to develop some new processes, systems and technologies for "green harvesting".'

She points out that the Sugar Link Project also attempted to build an understanding of collaborative initiatives towards a sustainable sugar supply chain which includes consumers, their communities and the environment as stakeholders.

'From an initial position of producing a huge carbon output to becoming energy-positive, the process took five years, including the development of new systems and the associated training,' she says. 'Being a fairly insular cooperative, it also took some time for the farmers to develop an understanding with the community about what they were seeking to achieve.'

'In the sugar industry, management of supply chains is changing considerably in response to the often-difficult market environment,' Woodhead explains. 'Market forces present real challenges to wholesalers and retailers but are exceptionally problematic for primary producers who often lack the knowledge to manage these new and dynamic relationships. Food

manufacturers and retailers increasingly demand consistent quality and on-time products from their suppliers.'

'In recent years, considerable emphasis has been placed on rationalizing the economic value chain to reduce excess costs and increase efficiency.'

'Manufacturers and retailers have responded to the marketing opportunity with product-label claims such as "animal friendly" and "organic". However, the credibility of these products depends on the ethical values of the chain partners and the verification of the claims through the entire supply chain.'

For many companies, which in the past have had an exclusive focus on providing economic value for shareholders, these consumer demands are driving new business strategies and changing relationships among chain partners.

'Ultimately, the Sugar Link Project achieved a commitment from stakeholders to sustainable farming practices, including waste water management, best-practice guidelines for farm management and "green harvesting" through collaboration and increased transparency,' Woodhead explains. 'It resulted in the ethical branding retailers were looking for to cater to the concerns of an increasingly influential breed of consumer.'

Along with improvements in practices, the Sugar Link Project developed a target and reporting system to ensure the continuation of the process. While the achievements of the Sugar Link Project represent the efforts of just a few, the tide is turning in Australia. The country's largest polluters, classified as companies that emit more than 125 kilo tonnes of GHG and produce or consume 500 terrajoules of energy will soon be required to report under a new legislative framework.

***'Supply chains are therefore powerful vehicles to drive sustainability.'***

The National Greenhouse and Energy Reporting (NGER) Act 2007, along with subordinate legislation, the NGER Regulations, the Emissions and Energy Methodologies Instrument and the External Audit Instrument, demand mandatory reporting for any corporation that emits GHG and produces or consumes energy at a specific activity level.

'The NGER System Regulations Policy Paper, released early in 2008 proposes to phase reporting in over three years from July 2008,' Maurice Sinclair says. 'Corporations will report within legislated industry sectors as a precursor to an Emission trading scheme.'

Initial compliance will come at a cost in the short term. 'At the end of the day mandatory reporting will be incorporated as a business cost,' Sinclair

says, 'while companies ascertain their base position. Once they've measured their actual output there will be all sorts of opportunities to reduce GHG and energy consumption, which should result in significant commercial benefits along the way.'

'The process will force businesses to look at better ways to rationalize and create more efficiency across their supply chains,' he adds. 'For example, companies might focus on distribution, particularly into difficult to serve and high cost-to-serve markets.'

'It could involve shared reverse logistics in terms of crate returns, pallet returns and other handling devices and materials that require reverse logistics collaborative operations. Collaborative efforts, essential to achieving sustainability, might result in the redesign or creation of more efficient rolling stock such as low-profile trailers, mezzanine trailers to allow for the elimination of shipping waste or looking to reduce the amount of drag and wear by close coupled trailers.'

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'Investigating alternative energy sources or hybrid fuel systems to reduce the significance of the fossil fuel base is another growing area, along with the use of multi-temperature vehicles to increase shipping efficiency and to reduce the number of vehicles on the road.'

'Companies might also attempt to reduce the amount of airfreight where possible, and increase sea freight.'

'Shipping is more CO<sub>2</sub> efficient when measured on a per unit basis, and space on the ship can be used as a warehouse with stock holding time calculated in,' Sinclair adds.

According to Sinclair, waste is one of the most significant contributors to GHG.

'If we can reduce the global waste in the food industry, which is estimated to be as high as 20 per cent, this equates to a reduction in GHG emissions of about 4–5 billion litres of fuel and as many as 5 million tonnes of emission annually,' he says. 'In the George Weston Foods business, for example, 15 per cent product returns is considered the industry average. That means at best we expend 115 per cent of effort to get 85 per cent efficiency.'

'This is an industry norm globally. Can you imagine the excess packaging, wasted finished goods, reduced production efficiency, excess marketing effort, increased transport in and out of the plants, and so on? Essentially, better demand planning will lead to reductions in stored inventory and ultimately waste.'

Despite the opportunities, Sinclair calculates that only about 5 per cent of companies actually know what they're in for.

'The beauty of the legislation is that it's mandatory,' he says. 'In the same way as GST reporting is now part of everyday life, the requirement for NGER compliance will drive daily business activity. The need to generate sustainability as added value to the business will also grow as strong leadership embeds it throughout the organization.'

But what is the first step for companies wishing to comply?

'In reality the first step towards creating a sustainable supply chain is to actually know what your carbon footprint is so that you have a base measure going forward,' Sinclair explains. 'Understanding the commercial impact will come once you know your footprint. Whereas a year ago you might never have heard of measuring carbon footprint, three companies have already achieved it, including Fonterra, McDonald's and DHL. George Weston Foods is employing an environmental manager and developing a working group to look and address our greenhouse gas emissions and future compliance activity.'

'I know of at least half a dozen other companies with whom I directly liaise that are looking at the same principles. I think we've moved beyond lip service now. This legislation has been the best thing that's happened to our planet for many years.'

Without dynamic alignment of supply chains, however, it's not possible to accurately measure your carbon output.

'John Gattorna's "dynamic alignment" model is a way to ensure the often conflicting goals of commercial success and socio-environmental responsibility can be reconciled and achieved,' says Maurice Sinclair. 'By looking at the behaviour along supply chains it's easier to match and design the interrelationships in a more harmonious way, to reduce waste and improve efficiency.'

'I would say that other than measuring your output, companies need to understand their strategy; the different buying and selling behaviours of their customers and suppliers, and then create the appropriate supply models through their chains. That will impact on the amount of inventory held, how it's procured, where it's held, how it's held, and the speed through the chain. Once alignment is understood, you can go about measuring your current footprint against the climate model and start making improvements within that context.'

While there is clearly a growing concern for the environment, as evidenced by the significant call from clients to investigate sustainability and compliance

within Mark Reynold's business in 2007, Maurice Sinclair says that there will still be those who'll need to be forced to comply, 'kicking and screaming', rather than being proactive.

Senior research analyst of sustainable funds for AMP Capital Investors and panelist Dr Ian Woods believes that businesses must think carefully about the impact on brand and reputation, and ultimately cost, of this attitude.

'A recent AMP Capital Investors analysis finds 77 per cent of the value of the typical Australian company is made up of intangibles,' Woods says.

'Successful risk management and supply chain relationships and management can represent an important part of company value.'

***'Whereas a year ago you might never have heard of measuring carbon footprint, three companies have already achieved it, including Fonterra, McDonald's and DHL.'***

'Consumers now look for signs of certification and assurance, such as quality, safety and environmental management systems,' he explains. 'These might include an organization's general approach such as a "green lead", the use of biofuels, or product stewardship. It might equally include a specific sector chain of custody initiatives such as the Forest Stewardship Council Certification, the Waste Electrical and Electronic Equipment Directive or the National Packaging Covenant.'

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Alice Woodhead sees emergent thinking within organizations looking to engage with social and environmental auditing, transparency, equitable distribution of wealth and knowledge and corporate responsibility.

'The change has come about in part because of the need to connect with the "conscientious consumer",' she observes. 'Finding a common language between competing needs and agendas within the supply chain is the next challenge.'

Maurice Sinclair maintains that there's a huge opportunity for Australia to use its wealth and technology to restructure its economy with a view to staying prosperous while using energy more cleverly and reducing waste and land use.

'The big dilemma facing developed nations is that, on one hand, we need to maintain the noble goal of sustaining Gaia or looking after Mother Earth and, on the other, we have to make sure that our companies are commercially viable,' he says. 'Otherwise the effort required will be severely short changed by rationalists whose sole focus is shareholder wealth.'

'Those that do position themselves early with the muscle, mass and collaboration skills will obviously be in the strongest position to maximize the opportunities as early adopters by incorporating the culture of sustainability as value into their business.'

## NOTES

- 1 Panel #1: Aligning enterprise supply chains with customers, suppliers, and third party providers.
- 2 See Chapter 16 for a more detailed case analysis.
- 3 J.L. Gattorna, *Living Supply Chains*, FT Prentice Hall, Harlow, 2006.
- 4 Refer to Chapters 12 and 17 for more details of the experience at Fonterra, New Zealand.
- 5 Panel #2: The critical contribution 3PLs can potentially make to overall corporate performance.
- 6 See also Chapter 23 for a more detailed discussion on 3PLs.
- 7 Ibid.
- 8 Panel #3: The impact of supply chain disruptions on corporate operational and financial performance.
- 9 'Supply chain disruptions result in lengthy recovery times, affect customer service and profitability', Accenture Study, New York, October 2006.
- 10 K.B. Hendricks and V.R. Singhal (2003), 'The effect of supply chain glitches on shareholder value', *Journal of Operations Management*, 21, pp. 501–522.
- 11 See Chapter 22 for more detail on supply chain disruptions.
- 12 Panel #4: Supply chain business models of the future.
- 13 See Chapter 27 for more detail on the Arshiya business model.
- 14 Panel #5: Achieving 'requisite' collaboration in enterprise supply chains.
- 15 J.L. Gattorna, *Living Supply Chains*, FT Prentice Hall, London, 2006.
- 16 Panel #6: Leadership, Vision, and innovation: supply chains in enterprise-leading roles.
- 17 Effective from October 2008, Professor Roy Green is Dean, Faculty of Business, University of Technology, Sydney.
- 18 Panel #7: Rise of the 'humanitarian' supply chain phenomenon in a troubled world.
- 19 See also Chapters 5, 6 and 7 for a more detailed treatment of 'humanitarian logistics/supply chains'.
- 20 Panel #8: The essence of 'sustainability' in contemporary supply chains.
- 21 See also Chapters 20 and 21.
- 22 *Towards a Sustainable Sugar Supply Chain*, Department of Agriculture, Fisheries and Forestry, Bureau of Rural Services, Australian Government, 2006.