



# APMG TERM PAPER January 2015 NEW WORLD SUPPLY CHAINS: BRITAIN AT THE HEART OF GLOBAL MANUFACTURING?

## INTRODUCTION FROM THE APMG

### **Supply chains: misunderstood, neglected, but brimming with potential**

Most people are familiar with big headline manufacturers like Rolls-Royce, Jaguar Land Rover, Coca-Cola and AkzoNobel, but the multitude of suppliers and partners that make these companies' final products possible are often forgotten by the public, and by government. This is to the detriment of the UK's entire industrial base, and ignores some potentially massive opportunities to set the UK on the path towards becoming an important hub for international supply chains.

As the evidence continues to mount that production is increasingly being reshored back to the UK<sup>1</sup>, and as the government attempts to encourage this positive trend through 'Reshore UK'<sup>2</sup> and other support mechanisms, the importance of well-functioning supply chains is becoming ever-more apparent. The government has been taking positive steps in this direction, such as increasing funding to the Advanced Manufacturing Supply Chain Initiative (AMSCI), to over £300 million since 2011<sup>3</sup>, and setting out several collaborative supply chain approaches between industry and government<sup>4</sup>.

As welcome as the AMSCI and other initiatives are, more can be done to address crucial issues related to the essential importance of good planning at the firm and state level, and important questions persist regarding the state of supply chains in the UK

Do we, in fact, have the right logistical and communication structures in place to support a wave of new manufacturing activity? Are our supply chains integrated enough and streamlined enough for smaller companies to operate as leanly and as efficiently, as possible? What are the blockages on the supply side, and how can we break them down? And lastly, what are the opportunities both in the UK and abroad if we develop our supply chain capacity to its full potential?

This paper seeks to address these questions by highlighting the experiences of manufacturers and individuals with intimate experience of dealing with the 'supply chain issue'. Through their contributions, we hope to clarify exactly what a supply chain is and its importance for a business (not as obvious as one might think), unpack the various challenges and opportunities associated with growing and strengthening our supply chains (there are many of each), and initiate a frank discussion of the role that the UK should play in the global supply network (as a central coordination hub as well as producers).

Now is an auspicious time to kick-start such a debate. The world is at a tipping point in terms of consumer preferences. We also can't afford to over-focus on advanced manufacturing as there will always be low-skilled workers in the economy, who should be able to take pride in their involvement in the supply chain.

While we don't make specific recommendations, we hope that this paper will be a starting point, or a sign-post, for developing an international supply chain strategy that puts Britain back at the heart of global manufacturing.

<sup>1</sup> <http://tinyurl.com/eef-survey-2014>

<sup>2</sup> <https://www.gov.uk/reshore-uk>

<sup>3</sup> <http://tinyurl.com/AMSCI-2014>

<sup>4</sup> <http://tinyurl.com/SCcollab>

# VIEW FROM THE SECTOR 1

## The need to get up to speed?



### Peter Rieck, British Coatings Federation

The aim must be to accelerate Britain's economic growth ahead of the rest of the world, drawing in wealth to finance national and social programs. That growth has to come from increasing trade with the rest of the world and offsetting the proportion of trade with Europe. Central to that growth is the regeneration of manufacturing and the resurgence of supply chain activity. Britain survives on being a trading nation, but in recent years the balance between services and manufacturing has tilted too far in favour of services leaving manufacturing short of investment and skills, the sources of both being increasingly focused elsewhere.

A combination of increasingly desirable goods and some important corporate investment has sown the seeds of a resurgence of manufacturing and brought with it reshoring of manufacturing that had gone to other parts of the world. The shift that is gathering momentum places Britain as the 11th largest manufacturer in the world, a position that can and should be bettered.

The supply chain, as far as manufacturing is concerned, embraces everything that impacts, affects, or enables the successful on-time, to-quality supply of a manufacturer's products along with the ability to bring those products to market. Shorter supply chains improve control, making the supply process more efficient and less prone to costly errors and failures, which is a fundamental driver in reshoring.

The supply chain is, however, at the mercy of its component parts. It is rendered ineffective if any of these parts fail; it does not take much to 'break the chain', even the smallest and apparently most insignificant element can bring the whole chain to a halt. Lean Manufacturing and Just in Time supply are now the norm in most parts of the world, but these approaches and techniques rely on an extremely well organised supply chain, excellent communications, and management and work force having all the requisite skills supported by the right culture and work ethic.

There are several impediments that stand in the way of British manufacturing supply industries securing a dominant role in the global supply chain network. Most notable amongst these are vision, innovation, skills and finance within many manufacturing and supply chain orientated

companies; while infrastructure, energy, skills and regulation dominate the need for government involvement to assist and facilitate the manufacturing environment agenda.

An acceleration of change is needed now, if Britain is not to lose its current lead in growth out of recession. Three key issues are emerging, first the need to improve communication about government and other initiatives and schemes, secondly streamline the actual delivery of effective solutions on an integrated and nationwide basis, and thirdly address broadening upskilling of the workforce that is already in place between the ages of 25 and 50.

Medium and smaller companies are expected to fulfil their role in the supply chain for it to work, but they are also the larger source of risk and failure because they are not 'current' or up to speed. And yet SMEs make up two thirds of all companies in the UK.

Medium and smaller companies are often not aware of their own shortcomings until they try to secure orders from international companies and don't have the resources to research and find the assistance they need to correct the situation. Their circumstances are further compounded, when faced with the myriad of organisations (often too locally-orientated and short on knowledge themselves) delivering that all-important assistance in training, finance and business.

### An End to the "oasis in a desert" approach

The much vaunted attention to "Wings and Wheels" (automotive and aerospace) initiatives although well intentioned have created an "oasis in the desert" effect. While effort and energy has been poured into and focused on engineering, many of the industrial sectors that are crucial to automotive and aviation products have been left out in the cold (or in the desert). Instead of looking at the overall needs of these two industries many of the key supporting industries have been ignored, which has resulted in products and skills continuing to be sourced outside the UK.

In aviation for example, engineering is well supported, but polymer chemistry, textiles,

specialist liquids, resins, plastics, paint and coatings are largely left out in the cold and yet an aircraft cannot be built or even take off without many of the products from these sectors. Deprived of the same level of development of skills and funding, these supporting industries fall behind and become a drag to the success of the primary industry. You could say that “but for a pot of paint seventy percent of industry would come to a halt”.

Unless there is better and more joined up thinking, where other supporting industrial activities are recognised as important to a “leading industry”, any initiative remains incomplete, patchy and ineffective in the medium to long term. Focusing too narrowly on an industry and its core activity leaves that leading industry unnecessarily deprived of the surrounding support that it needs; this cramps innovation, restricts funding and slows down development in those supporting industries, allowing others from competing countries to move faster and overtake.

In short, there is a bias in education, funding and support for innovation that needs to be addressed; access to funding need to be radically simplified and streamlined and SMEs must have a common national source of information about what is available to them.

### **Skills – “missing rungs on the ladder”**

There is currently a skills shortage in the UK, with large gaps between school leavers, universities and company-based apprenticeships which, if addressed, would in the medium term reduce the need to “import skills”.

We need a fast-track solution if we are to bridge the skills gap in manufacturing between the ageing workforce and the generation leaving school. To do this we have to overcome the missing rungs on the education and skills ladder left by the demise of the polytechnics and industry-specific National Training Organisations.

Furthermore, we should open up these facilities to people of all ages so that we minimise cost and maximise the benefits of knowledge and experience from a wider partnership between education and industry to retrain and upskill from the overall workforce. Such a move would encourage employers to look more deeply at the potential in their overall staff resources and include many more women in their plans.

There also need to be common standards of skills that are recognised across individual

manufacturing sectors, making those skills commutable from company to company without the further training that the current apprenticeship schemes necessitate. Germany, for example, not only has vocational education from highly admired technical colleges, but also industry specific and orientated skills training centres providing a smooth transition in knowledge and experience from school to work.

### **Speeding up delivery of initiatives**

It is fashionable to “think regional” almost to the exclusion of everything else. However, there are many industrial sectors and companies that for various reasons need to think nationally and internationally.

For many companies and industries, neither Regional/Local Government nor Chambers of Commerce are natural places to seek information on anything other than rates or planning.

To overcome this issue and to increase the linkage between the current approaches and initiatives, National Industry Federations or Associations should be brought into play.

These are natural ‘go-to’ organisations for many industries and act as natural hubs, disseminating information while delivering and guiding companies to resources and other organisations that can help on a nationwide basis. They encourage networking and best practice flows from large and small companies meeting on neutral ground, creating a forum where smaller companies are exposed to larger ones, as well as international company culture. They also help to ensure national standards of excellence on an industry-specific basis.

If we are to succeed, we need to consider using these routes to refine and speed up delivery of those valuable initiatives that will put our industry firmly at the centre of the global supply chain network. Trade Associations are a severely underutilised resource in the overall drive to improve Innovation, Skills, access to Finance, dealing with Energy and Sustainability issues and a host of other matters all of which usually fall under a simple subscription.

### **Energy, Transport and Communications**

The role of Government in providing core infrastructure for manufacturing industry cannot be over emphasised. Whether by private or public initiative, decisions on the country’s infrastructure have to be speeded up. Industry is

suffering from poor transport, instability and high cost of energy and slow communications.

Most manufacturing companies have to ship the goods they make through every available means of transport and yet every day some motorway is shut, rail networks disrupted and airports are short on capacity. Every manufacturing process needs some form of energy and yet we are totally dependent on the whim of other countries to supply at almost any price the feel like which can change at a moment's notice – impossible to plan ahead. Every company in this day and age is dependent on the Internet and yet within ten miles of Cambridge (the UK's Silicon Valley) there is less than one megabyte of download.

## Think Manufacturing

There are solutions that will allow us to keep up with and even outstrip our major competitors as they emerge from recession and companies return production from Asia to Europe. We need to make sure we have an attractive industrial landscape and ethos that ensures much of it comes to the UK. Government should speed up changing the balance of its approach to manufacturing, becoming less of a regulator and even more of a facilitator. Government needs to create the right business environment of regulation, tax and funding with a world-class national infrastructure of energy, transport and communications for manufacturing to prosper on a long-term basis at the centre of the global supply chain.

## VIEW FROM THE SECTOR 2

### Supply chain networks and customer value

#### Jeremy Phelps, Tata Consultancy Services



#### Mobilisation of UK supply chain networks to new world customer value

Industry has long recognised the need for a deliberate focussed approach to address ~~any~~ disconnect between business leadership and operational execution. Global market penetration and strategic competitive advantage are now so dynamic (mass customisation, international compliance, security and sustainability) that organisations are collaborating even more with business partners to maintain required agility. Organisations who take a parochial business view will constrain opportunity to enable new markets or to protect market share, for instance: Automotive OEM's are reported to themselves represent only 30% of product value. Taking a traditional parochial approach with a value chain therefore represents a traditional supply chain, motivated largely to optimise cost and responsiveness but due to new levels of complexity and globalisation, can be slow to adopt and will focus only upon short term objectives. UK suppliers, if only able to compete on price, will quickly gain the reputation of failing to deliver.

OEM's supporting global demand for products and services are rapidly expanding 'in market'

supply operations. This will subsequently encourage movement of local supply operations up the value chain with long term potential implications for UK tier 2 suppliers.

Securing investment for innovation, infrastructure or capacity through all supply chain tiers places a great responsibility upon expanding OEM organisations. However, OEM efforts for global business expansion are leaving suppliers guessing with regard to developing their own domestic or global investment strategies to support the OEM plan. Are OEM's 'assuming' that Tier 1 and 2 suppliers are also investing 'in market' to support new international manufacturing plants or product support strategies?

#### Expand horizon beyond supply and understand customer value to shape long range strategy

Accepting the principle that it is end user or customer priorities which define value, the scope and scale of focus for leadership intervention significantly expands. Opening leadership beyond its own organisational boundaries to align upstream business partners with downstream use of goods and services is critical.

Unfortunately, a further barrier to effective businesses integration is driven by internal functional parochialism. A purchasing function acting in isolation with a supplier commercial function may not provide enough long range demand context to enable effective strategic alignment. As the network supporting an OEM must secure vital long term continuity of supply, product quality, and product innovation for the OEM to be successful, breaking down functional and organisational barriers is essential. Market globalisation of products and services is also recognised to bring increased volatility and complexity throughout the value chain. Resilient OEM's will therefore strive to establish a shared alignment to its business strategy throughout its network, though this requires unprecedented levels of trust and transparency with business partners.

Leadership and control require organisations to establish unprecedented strong management systems (as well as information systems) securing operational alignment to market strategies. Alignment of the end-to-end value chain network to customer value must therefore 'spill past' organisational boundaries, adding new dimensions to old business challenges:

- How to align training to common goals and value across multiple organisations.
- How to align multiple organisations' daily routines to objectives for sustainability
- How to provide end-to-end transparency, reporting and engagement across multiple organisations
- How to align performance incentives to a common strategy across an organisational network

### **Industry intervention must be proactive and well supported by business institutions**

In the last decade, we have seen how extreme external economic events will prompt government intervention (such as the US government National Catalogue of Excess Manufacturing Capacity). However, more proactive Government intervention could enable advanced alignment of industry to global market value and secure business growth targeted towards regional economic stability.

We are seeing that business supply chain information systems show increased executive demand trends for dynamically networked solutions, such as cloud computing, mobility, social listening, and big data. Businesses are waking up to the fact that the businesses most aligned and informed to customer demand (or end customer value) will be the most agile, competitive and successful. However, this represents a challenge for small to medium organisations, which will struggle to find the required investment for this capability alone. Again, we see that the availability, granularity and timeliness of demand information through the supply chain network is inadequate for effective capacity planning, let alone alignment to strategic value.

Business institutions in the UK have an obligation to inform and enable the complete value chain of products and services across multiple industry sectors. The example of the multi-million investment in the National Automotive Innovation Campus at the University of Warwick demonstrates a powerful message of the UK's commitment to the global automotive industry's bringing together of suppliers and partners for product co-innovation.

Greater momentum and focus to align 'Value Chain UK' to global customer value will not only identify and deliver 'quicker win' opportunities, but will also help align UK government industrial strategies for long term UK manufacturing growth.

### **Accelerators to mobilise UK manufacturing towards new global customer value:**

#### **Encourage business to expand scope of value chain to find more value**

- Target government R&D investment towards collaborative ('spill over') market facing innovation and internationalisation.
- Develop commercial innovation frameworks for targeted industrial clusters which accelerates realisation of viable product or service.

#### **Prioritise initiatives to unlock value within the end to end value chain**

- Establish government incentives which drive the right behaviours and accelerate growth, throughout the end to end value chain
- Establish government incentives, focussed to accelerate value chain networks for global business expansion (free trade agreements)
- Streamline and rationalise regulation across target strategic global value chains

## **Create and encourage ongoing alignment across organisational networks**

- Develop clear 'home market' strategies and international manufacturing capacity plans for strategic industrial clusters to improve UK export capability, competitiveness and limit risk of off shoring.
- Develop a clear end to end value chain UK view to inform strategies for investment and consolidation.
- Mobilise targeted industrial clusters and develop collaboration, cooperation and commercialisation to compete in a global market.
- Enable long term planning, capacity planning and skills development. Setting and publishing stable government strategies (e.g. affordable defence and civil spending plans)
- Target well-conceived support projects (such as Catapult operations) and maintain long term focus.

### **Other references**

*APICS / PWC: 'Expand Scope of Sustainable Supply Chain Initiatives to help you find more value'*

*PWC: 'The future of UK manufacturing industrial products, sector by sector analysis'*

*Department for Business, Innovation and Skills: 'Manufacturing in the UK: an economic analysis by sector' (Dec 2010)*

## **VIEW FROM THE SECTOR 3**

### **Prof Janet Godsell, Warwick Manufacturing Group**

#### **Putting the UK back at the heart of the Global Supply Chain Network**



Whilst supply chain (SC) has underpinned the development and industrialisation of society for centuries, it was not formally recognised as a concept until 1982. It was defined by two consultants (Oliver & Weber) from Booz Allen Hamilton, and at its core was the concept that the SC needed to be considered holistically. In other words, that it brings together under one overarching strategy the functional areas of planning, purchasing, manufacturing, distribution and sales.

A comparable concept is the value chain that was popularised by Michael Porter in the 1980s. Porter stressed the importance of considering the firm as a 'collection of activities that are performed to design, market, deliver and support its product'. Porter also believed that the value chain of an individual firm was part of a broader 'value system' or in today's parlance – extended supply chain – which included the value or supply chains of suppliers, channels and buyers.

From such a broad and enlightened perspective of supply chains over 30 years ago, it is extremely frustrating to see UK industry adopt a much narrower and limiting perspective. The SC has been de-scoped to focus primarily on procurement or supply management; the management of the suppliers or supply base. In today's globalised world, such a narrow perspective is damaging to UK industry.

The UK is part of a network of global supply chains. To operate effectively in this network, the UK first needs to recognise that it is a part of the network, and then identify the most value adding ways to contribute. It is about recognising global demand and configuring the right global supply chains to meet this demand effectively (meeting the customer requirements in terms of cost, quality, time and increasingly environmental and social sustainability). Failure to do so will see the UK becoming increasingly marginalised with no recognised role or expertise to contribute to the global supply chain network.

It is not too late for the UK. Indeed, with the after-shocks of the global financial crisis still reverberating around the world, and traditional models being challenged by the internet, the time is right to re-visit the role that the UK plays in global supply networks. Whether this be local supply to meet the demands of the UK market, regional supply for the European market or global supply for the world. To capitalise on this opportunity and re-define the UK's role at the heart of the global supply chain network, there are five critical ways in which the UK needs to view SCs differently.

#### **1. Functional to holistic perspective**

The UK needs to return to the origins of the SC and view it more holistically. Within a firm, this means recognising the full scope of all the operational processes that define the SC. The SC Council has defined the industry standard for these core SC processes. It is known as the Supply Chain Operations Reference (SCOR) model and is used by many corporates as a standard lens through which to view their SC. The core processes are Plan (planning), Source (procurement), Make (manufacturing), Deliver (logistics) and Return (e.g. reverse logistics, repair, remanufacture and re-cycling). These processes are used to understand customer demand and translate into effective and efficient supply. This requires an understanding beyond the bounds of the firm, of the extended supply chain. As a minimum this should include customer and suppliers, but in more advanced supply chains it should potentially start from the mining, extraction or growing of raw materials to their recycling at end of life. One firm cannot necessarily manage the end-to-end SC but they need be cognisant of the role they play and how they add value.

## **2. Manufacturing to planning centric**

If the UK wishes to maximise the role that it plays within a global supply chain network, it needs to consider the different ways in which the UK can contribute to manufacturing. The success of a global supply chain network relies on the correct positioning of the factories, suppliers and warehouses around the globe, to serve different markets. This requires expertise in network modelling both as a one-off activity, and to maintain competitive advantage on an on-going basis.

The UK has considerable expertise in both the development of network modelling software and its application. Increasingly, as global value supply networks need to react to global changes in demand, such modelling shifts from a singular activity to an integral part of business planning, conducted on a regular basis. There is an opportunity for the UK to continue to develop its capability in this area and become a global hub for network design and management. Once the global supply network design is determined, the flow of materials and information needs to be managed. More importantly, they need to be monitored and ideally 'optimised', ensuring that customer demands are met at lowest overall supply chain cost. It is the role of 'planning' to coordinate, orchestrate and optimise these flows. Planning is the 'glue' that holds the supply chain together yet it is poorly represented.

In the UK we have professional bodies that represent manufacturing, procurement and logistics, but where is the Chartered Institute of Planning and SC Orchestration? Organisations like British American Tobacco (BAT) have created high skilled planning jobs in the UK by locating their Supply Chain Planning Centres in the UK (BAT's are located in Southampton) to co-ordinate and optimise their global supply chain networks. There is a huge opportunity for the UK to continue to develop a full range of supply chain planning capabilities, and to position the UK as the supply chain planning hub of the world.

## **3. Re-shoring to right-shoring**

In our quest to regenerate UK manufacturing we must take care to avoid jargon and use simple terms that convey their meaning intuitively to the general public. Re-shoring is a term that has evolved in business circles to convey the reversal in the trend of off-shoring. Simplistically, off-shoring is a term used to describe the shift from local production (e.g. in the UK) to production in a more global setting (e.g. China and the Far East). It was driven by a desire to reduce production costs, predominantly as a result of lower labour costs. What we are starting to see is manufacturing returning to the UK. One of the main reasons why this is happening is because businesses have started to look at their cost base more holistically and in relation to their competitive priorities. They are no longer fixated with production costs (and labour cost in particular) but are taking a more holistic view of the total cost of sourcing, making and moving a product to its end consumer and the time it takes to do so. They are looking at the total supply chain cost and balancing this with the degree of responsiveness required to meet customer demand. This price parity has been helped by inflation of labour rates in the Far East and the price of oil and other commodities, but the critical difference is that businesses are now looking at it holistically. It is also enabled through the development of their planning capability to help them to effectively develop and manage their global supply chain and balance different competitive priorities e.g. cost vs. responsiveness.

It could be argued that the fixation with production costs led to a somewhat myopic shift to more globalised production without fully considering the implications. As businesses begin to re-adjust, the challenge is to identify the most appropriate global supply chain network to support their business; to determine which elements of their production should be made

locally, regionally and indeed globally. It's not about re-shoring but right-shoring.

The UK should not want to become the re-shore nation. We should enable our businesses to right-shore: to work with businesses to understand their strategic priorities and core capabilities, to develop the right global supply chain network (locally, regionally and globally), and to ensure both the success of individual businesses and the UK economy.

#### **4. 'After thought' to an integral part of strategy**

The executive and non-executive boards of UK companies are dominated by members with financial and commercial backgrounds and have limited representation in terms of operations and supply chain management. This commercial orientation can lead to unbalanced commercially driven strategies that focus on stimulating sales growth without due consideration of whether the operations and supply chain can support these plans in a cost effective way.

The recent difficulties of the large UK supermarket chains are not surprising, and could be argued to be partly due to a lack of strategic alignment. Their overt strategy is one of 'Every Day Low Price (EDLP), which requires supply chain costs to be minimised. This can only be achieved if demand is relatively stable and predictable, which it actually could be for many consumer packaged goods. The problem is the promotions that the supermarkets offer, usually encouraging multiple purchases of products that consumers don't need, which causes huge spikes in demand and difficulty for the supply chain to meet orders in a cost effective way. Conversely, Aldi, supermarket of the year for the past 2 years, does not promote its basic products. It is truly EDLP. To stimulate consumer excitement, it has themed weekly sale days, for coveted items sold at very competitive prices on a 'When Its Gone Its Gone' (WIGIG) basis. This has the mutual benefit of creating consumer excitement and minimising supply chain costs. It is an example of good strategic alignment, and inclusion of supply chain as an integral part of supply chain strategy.

UK businesses need to ensure that SC strategy is an integral part of their business strategy, and find innovative ways to both increase sales today and reduce costs tomorrow. This will require increased presence of those with supply chain expertise at board level. It also requires supply chain professionals to learn the management of the board, and find ways to communicate their ideas focusing on the vast business benefits that

can be delivered rather than the technical details of the solutions.

#### **5. Specialist function to a pervasive part of our social fabric**

Supply chains are pervasive and almost everyone in the UK contributes to a supply chain in some way. Whether you are an agronomist, farmer, tanker driver, fork-lift driver or check-out assistant helping to feed the nation; a research scientist, shift manager, quality assurance manager, warehouse operative, lorry driver, doctor, nurse or pharmacist helping to protect the health of the nation, you are part of the supply chain. Together, we can help to put the UK at the heart of the network of global supply chains that support our lives, and the lives of others around the globe.

To do this first requires that we collectively understand what a supply chain actually is. That all those that help to keep the UK and other nations healthy, fed, secure, educated or entertained are part of a supply chain. To ensure that each and every one of us understands the critical role that they play and the value they add. To put the pride back into the nation, and encourage us to recognise the contributions that are made by all. All roles in the supply chain are equal, as a supply chain is only as strong as its weakest link. Different roles require different skills and capabilities. Some may require more formal qualifications, others aptitude or more vocational skills. They are all equally important and we should encourage everyone to find the best way for them to contribute.

We have the opportunity to put the UK back at the heart of the global economy. We can do this by understanding more holistically the scope of the supply chain, and the broad range of skills and capabilities that this requires; where we 'right-shore' and take a considered view of the design of global supply chains, and the activities UK companies should carry out in the UK, in Europe and more globally; where we develop new capabilities to support the development and management of global supply chains, and ensure that we are world-leaders in supply chain planning and orchestration. We need a nation where our boards have good supply chain representation and have congruent strategies to enable competitiveness today whilst building capability for tomorrow, where everyone in the UK understands the importance of our supply chains and the critical role that each and everyone plays in supporting our nation. Together we can put the UK back at the heart of the network of global supply chains that underpin our lives.

## VIEW FROM THE SECTOR 4



### Case Study: Altro

#### The current SC perspective

Altro sees its supply chain as a key strand in its strategy. Being a medium size company with international exports in a niche sector of floor and wall products, Altro competes with its larger international competitors using its size as well as its reputation of engaging culture, innovation, sustainability and brand recognition as an advantage. This is an iconoclastic view at the backdrop of conventional logic, which favours larger companies and their buying power of mostly hydrocarbon-derived chemical raw materials.

#### Reason for SC model & benefits

Altro's purpose is defined as 'taking responsibility for safety, hygiene and sustainability'. Having such a clearly defined purpose and an explicit set of practised values, Altro aligns itself with similarly inclined suppliers and creates long-standing relationships that entail open information sharing via its 'Voice of the Supplier' (VOS) programme, as well as joint projects that identify opportunities for all parties. In many cases, these relationships are underpinned with carefully crafted, mutually agreed confidentiality agreements (NDAs).

Pricing is viewed as an integral part of shared value creation, and agreed and reviewed as such. Specifically where the global availability of raw materials or global trends create pricing pressures, Altro takes a quarterly pricing approach with 'frame agreement' volume forecasts shared in advance with key suppliers.

Similarly with customers, Altro operates an award-winning 'Voice of the Customer' (VOC) programme that continuously elicits feedback from all customers and suppliers, especially the ones most aligned with its purpose and values. This enables Altro to have a dynamically informed real-time view of its markets that blends the supply and demand quality, timing and pricing with the explicit and implicit needs of its chain. Altro can then minimise its inventory holding and to lead the industry scoreboards on customer service experience whilst keeping cost levels at their most optimum per customer segment.

This highly interactive and secure information exchange is a key selling point, often leading to more opportunities for joint improvement projects and new business opportunities with existing partners.

Altro successfully aggregates information from suppliers and customers and uses it to achieve a responsive focus whilst keeping its operational costs at their optimum minimum. Such focus enables Altro to inject limited-time product & price promotions to specific customer segments to drive demand and influence its market share growth without putting any strains on its available manufacturing capacities.

#### Challenges & Opportunities

The high-interaction, multi-level connection supply chain model that Altro operates entails carefully customised information systems, a relatively high number of customer and supplier-facing associates, and a remarkable attention to detail.

Altro recognises that excellence in service, in manufacturing sustainability, in innovation and in training can never be taken for granted. Such focus is a relentless pursuit that requires significant investments in expensive resources, carefully selected projects that continuously feed these areas and key performance indicators (KPIs) that connect and inform the chain. Excellence in these areas attracts attention, which in turn enables Altro to engage the right partners, assess their business and cultural fit (and segment their needs), proceeding to signing of NDAs and flexible supply terms and conditions (T&Cs) that enable the flow of information.

This is a carefully constructed roadmap and skill that Altro has embedded in its organisational culture. It is accomplished with a big investment in training, but also with careful selection of associates and masses of feedback which are analysed and shared with the whole organisation. It is all about analytics underpinning the cultural norms of intuition with interactive behaviours, which require mindful care. This formula enables Altro to truly 'punch above its weight' when it comes to being chosen for prestigious projects (i.e. London 2012) and creates a network of mutually beneficial partners up and down its

supply chain, which fuels its growing revenues. Altro strives to operationalise key elements of expert views and advice in supply chain innovation and this is another source of

attraction for its supply chain partners with whom it shares benefits and experiences of their application.

## VIEW FROM THE SECTOR 5

### Supply Chain Management in Complex Asset Management

#### Perspective from a world-leading, multi-national support services provider

Where customers own complex engineering assets, such as defence systems, mineral extraction equipment and telecommunications facilities they are increasingly outsourcing their maintenance, repair and overhaul. This is typically a high-value low volume activity which requires the service provider not only to assure the required 'up-time' but also to update and extend the life of assets safely and at an affordable cost. Supply Chain Management in the engineering services sector is traditionally associated with the procurement of materials from spares suppliers, but success in the modern context is equally dependent on much broader interpretations of 'supply' such as the sustained availability of suitably qualified technicians, long-term provision of maintenance facilities, and the strategic balancing of internal and external capabilities. In this respect the supply chain management organisation is the integrating function that weaves these factors together in a way that adds enduring value across key supply networks.

#### Designing supply chains for complex asset management

Leading companies in this field are seeking to design supply chains from the perspective of the end user. In practice this means a focus on the engineering maintenance and update activity required to keep assets performing safely and ahead of the competition. Planned maintenance and incremental system improvements form the known demand signal but there is also a need to employ advanced diagnostic analyses and modelling techniques as widely available forecasting techniques, which work perfectly well in high volume industries, are challenged by the paucity of demand-generating events in this

sector. Where there is certainty in the forecast supply chain professionals can work with internal and external suppliers to drive economic efficiency into the supply response. Where there is less confidence they design agility into the fulfilment process by working closely with key supply partners to deploy a range of responses from the more traditional inventory 'buffering' to incentivised output based sub-contracting and responsive manufacturing techniques.

#### Challenges

There are two key supply chain challenges facing this sector:

- SCM is essentially an integrating activity and SCM people are therefore often at the forefront of work to drive closer cooperation both internally and across the broader enterprise. From multi-disciplinary category management teams to cross functional planning cells the SCM function is in the vanguard of getting colleagues to think differently about the way they work.
- Data and information is the DNA of good supply chain management in complex asset environments. It is often held in a number of locations across the extended supply chain and significant investment is therefore required in the people skills, processes and systems that capture, cleanse, upload and analyse engineering, supply and logistics data in support of predictive decision-making.

**The All-Party Parliamentary Manufacturing Group is a forum for open debate between Parliament and the UK's manufacturing community. To find out more visit [www.policyconnect.org.uk/apmg](http://www.policyconnect.org.uk/apmg).**

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