

You can't leave a \$400m aircraft sitting idle

Efficient logistics operations are critical to manufacturing high value equipment, and getting it wrong can be very expensive. A panel of industry leaders examined the challenges at our round table sponsored by Unipart.

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For industries such as aviation and transport it is almost impossible to overstate the importance of maintaining capital equipment. And this is often determined by the availability of parts. Having full and complete availability of parts can mean the difference between a \$400 million aircraft sitting idle or completing the task for which it was intended.

"When an organisation buys a piece of capital equipment you have to keep it working. The optimum, true life costs for any piece of equipment is what it costs to run," explained Bernard Molloy, global industrial logistics director at Unipart Logistics. "That is why Unipart has invested significantly in developing the service market skills and technologies first for the automotive sector then for other sectors like mobile telecoms and aerospace. It is all to do with the right part, the right place, the right time and the right skill."

Revealing the size of the service market, independent consultant Rajesh Mehta highlighted the potential economic value. "In the UK this year, the service market is worth around £24bn. In 2025 it will be worth around £35bn. If companies in the UK wake up that will grow even bigger."

Benefits

Mehta further outlined the additional benefits of spare parts availability. "Things like health and safety can benefit. Because you are not running around trying to get an aircraft or a train out, there are less accidents. Other parameters improve as well."

Nigel Strutt, corporate director of supply chain and procurement at Lockheed Martin, pointed to similarities between the defence and aviation industries, although noted that there were also subtle differences in the business case. "If you are an aircraft manufacturer you probably have five, six, seven product lines and there is going to be production associated with them for 10, 20, 30 years. In the defence side of the business you are very project or programme orientated, which will last for four or five years typically."



"You've got a number of stages. You've got an initial procurement, development and delivery of the equipment and then you have a longer tail as you support it. The efficiencies that you can potentially gain in the commercial aerospace world will not necessarily be mirrored in the defence side of the business." Strutt agreed on the importance of the supply chain. "Typically, 70 per cent of the value of a product in our portfolio comes from the supply chain. And we are multi-tiered. It is not uncommon to go down five or six tiers. All of this takes a skills set to deliver on. Getting the right skills in the lower tiers is absolutely critical."

And it is not just skills that need to be in place for businesses to flourish in future. According to Mehta, the growth in the service market will lead to changes in the manufacturing industry in future: "I think longer term you can have three types of companies; those who produce, those who produce and service, and those who will just service."

Meet the panelists



Will Stirling, managing director, Stirling Media



Michael Winjarski, head of business development, Unipart Logistics



Paul Berrow, director, Translift Bendi



Nigel Strutt, corporate director of supply chain and procurement, Lockheed Martin



Rajesh Mehta, independent consultant

“We believe that at some time in the future the people who just produce won’t be around. So the people who are in producing and servicing will probably grow and there will be other people out there who will be doing a fairly strong service part of the organisation. As a country we need to wake up to that.”

Introducing the group to Through-life Engineering Services (TES), Mehta argued that servicing has the added benefit of delivering a more steady and reliable revenue stream. “There are longer term service contracts of 25 or 30 years. I’ve seen organisations where the service part of the organisation can carry the company forward in the lean times.”

“If we are going to grow industry that has to go hand in hand. If you are at the front end servicing,



you learn a lot more about your product and you can feed that back into your design, so you can actually take a lot more cost out,” added Mehta.

Understanding who is best placed to lead an organisation and deliver structural and business change was a question on many participants lips. “You move into the internal power structures of an organisation. Who leads the organisation? Is it the finance guys or the engineers?” mused Strutt. “It starts with a vision. It is a vision and a focus and an execution of that vision,” explained Mehta.

Malory Davies, editor of *Logistics Manager*, pointed out that if the manufacturer was going to be solely responsible for servicing the product throughout its entire life, it would affect the kind of product it made. “If you are looking after the product through its whole life cycle, you are going to build a product that you can look after efficiently. You see this in the commercial vehicle market.”

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Strutt noted that longer term servicing contracts could also have an impact on a company’s financial model. “Are you going to go for low margin new equipment, on the basis that your real contract is 30 years?”

Mehta pointed out that service contracts offered stability and assurance over the life cycle of the contract. “If I know what it is going to cost me over 30 years and it is a fixed price, I know what my spend is going to be.”

Speaking in her own capacity, supply chain and procurement professional Michelle Wang explained how Rolls Royce had adapted its operating model to offer an integrated set of services covering key aspects of engine management and maintenance.

“We completely changed our model from an engine manufacturer to becoming a service provider. We still build engines, but we are saying that we are in charge of all the services. For the customer it is freedom of mind from troubles. It’s a customer driven requirement to make sure that we have all the spares there at the right time, right quality and right quantity.”

Mehta advised that many companies were re-evaluating their maintenance plans as part of a new focus. “The move is going away from doing preventative maintenance and going to condition based maintenance. The aircraft is telling you that the condition isn’t perfect and it can still carry on, but actually it needs something doing.”

Wang agreed: “The whole purpose is to minimise disruption to the customers.” While there are differences between aviation and defence, Strutt drew some comparisons: “There can be no doubt that when somebody needs to call on a piece of equipment that they have got it has to work first time and right every time. That is built into the design, but equally it is built into periodic reviews and maintenance diagnostic services.”

Relationship

Linking the discussion to the materials handling market, Paul Berrow, director at Bendi, noted that the relationship with customers was paramount to gaining repeat business in the forklift truck market. “Losing customers is a major problem, so we focus on the service engineers provide and the response times. Servicing is key, but our preventative maintenance is more key because of the product base.”

Tony Light of Kingsdown Marketing identified a trend surrounding service revenue and financial planning. “A company I was working very closely with started selling all inclusive maintenance contracts for trucks back in the 1980s. Since then it has become a characteristic of the business.”

Will Stirling, managing director of Stirling Media, concurred that there had been a shift towards service led business models, although felt that this was a far more recent trend. “The proliferation of servicing in the last five or six years in the UK and elsewhere is due to the

recession. We’ve seen that perhaps the culture was to buy and be proud of that purchase beforehand. Then the recession hit and we don’t want to buy new assets, we want to lease them.”

Molloy agreed, observing that the forklift truck market had changed significantly: “90 per cent of the market in the UK is contract hire now.”

Rebecca Brown, operations manager at automotive supplier Stadco, detailed the



Unipart Logistics

Unipart Logistics' services range from warehousing, fulfilment and engineer support services to reverse logistics. It manages end-to-end, global supply chain solutions that include sourcing, procurement, technical services and business support for a wide range of clients such as Vodafone, Jaguar Land Rover, Sky, Waterstones and Homebase. It also provides a wide range of security solutions including manned guarding, alarm and CCTV monitoring. The Unipart Way, efficiency with a human face, is a philosophy of working underpinned by a set of tools and techniques that form part of the company's knowledge management system. "We continuously improve based upon our experience."

challenges involved not just with handling aftermarket operations, but also forecasting demand for aftermarket products. "What we are starting to recognise as a business is that we are putting a lot of focus on new models and launch, but we tend to forget about the end of life. The automotive industry that I'm involved with doesn't work with aftermarket very well. We struggle with any forecast or demand from our customers with regards to aftermarket supply."

Brown expanded on the problems posed by aftermarket tooling and associated costs of storage and maintenance. "You are obliged to keep tooling. If the customer places an order you need that tooling. That tooling is likely to have been their asset to begin with. We can't advertise this cost in the mass construction part because you end up not being competitive against your rivals."

Michael Winiarski, head of business development at Unipart Logistics, outlined a similar problem faced by one of their key clients. "The supplier couldn't continue to supply the aftermarket bumpers. They were able to do the mouldings, but were unable to keep all the tools and fixtures. We actually ended up dedicating a bit of our warehousing space. We cleared it out and took in the old machinery and started up an assembly operation to service the aftermarket specifically. The approach we like to take is the partnership approach."

Thoughts quickly turned to skills within the supply chain. "If you're going to provide maintenance, you need skills. We are a long way behind the respect and apprenticeships that German engineers have. The government have recently made a legal obligation that apprenticeships have to be minimum of 12 months. But even 12 months is not enough," stated Molloy.

Standard

"In Germany I think they would not call that an apprenticeship. There's a minimum gold standard that the Handelskammer maintain, which is three years minimum and the ratings of how well they are trained and managed are monitored right across Germany," explained Stirling.

Brown revealed the challenges Stadco faced when seeking to recruit skilled individuals: "Toolmakers are very hard for us to recruit. We really struggle. I was keen to take on an apprentice in my department to assist with physical inventory and stock control and there isn't an apprenticeship out there that fits into that category."

Strutt agreed that there were challenges that still needed to be overcome, but remained bullish about

Lockheed Martin's apprenticeship schemes. "We have gone right across the board. We have a high number of graduates and we've also got a very vibrant apprenticeship programme, which we're looking to grow more."

Of course generating more apprenticeships is only half of the problem. Where there is supply, there must also be demand and creating demand is no easy thing. "The problem we all face if you are from a manufacturing background, is branding manufacturing such that schools and careers people support it," advised Strutt.

Berrow expanded on this struggle, noting that larger companies were likely to find it easier to recruit the best people. "Smaller companies don't get a look in. We have four apprenticeships. When they've got their qualification, what we find is they go for more money with a bigger company." Echoing a pervasive fear, particularly among SMEs, that trained apprentices will simply take their skills to the highest bidder.

Strutt revealed that this was a worry further down the supply chain, not just with the OEM: "When we have spoken to our first and second tier suppliers and encouraged them to train their people and do supply development programmes, they are absolutely paranoid that as soon as they train that person he goes. I can sympathise with that."

Not such a problem, however, for large companies such as Rolls Royce. "A lot of apprentices tend to stay with us.

When I joined the company I tended to find people who were working there for generations and generations. We take pride in what we do," stated Wang.

Addressing the issue of supply, Molloy identified a clear problem positioning apprenticeships in the right way. "We've got to get into the schools and colleges and capture these kids when they're 12 and 13."

Ambitions

Most around the table agreed with this, reflecting a sentiment that manufacturing and supply chain must find a way to interact with the younger generation through their channels and understand their ambitions. "We need to take a look at the mind-set of school leavers today. They probably think differently to someone of my age. They are not wanting a job for life all of the time. We should expect that they will go out and they come back, but each time they are growing," argued Strutt.

Winiarski agreed, adding that companies could also look at multi-skilling their employees to provide more variety. "You give them opportunities that take them through other areas of the business. So they have the change, but within a safe umbrella."

Strutt further outlined the typical career building blocks within Lockheed Martin: "As a group we spent two years trying to understand the path from a fully qualified procurement professional and what skills they will need to get to be the vice president of procurement in 20 years. They're not all technical skills."

Tackling the elephant in the room, Stirling argued that a failure to focus on the financial benefits of working in manufacturing and supply chain had compounded the problem. "There has been a lack of willingness for spokespeople to talk about pay. Let's explain what average rates of pay are in manufacturing, engineering, logistics and industry in different tiers, by company, by sector and young people will embrace it more."

The final word fell to Brown, who succinctly summed up the discussion: "If we can get across how important supply chain is to the country, we would be in a much better place than where we are at the moment."

