

MANUFACTURING MATTERS

Interview with
DAVE SHORE
JOINT MANAGING DIRECTOR
TIME 24



In a series of interviews with the partners of Knill James, manufacturers talk about their ambitions and reveal the issues which are mission-critical for them to address in achieving their goals.

The interviews will be brought together as a report to be published by DECISION magazine and then as a digital book.

HOW BEST TO DESCRIBE niche, high value-added contract manufacturing? "Above all, this is a service industry," says David Shore, joint managing director of Time 24. "That's because customers have a choice. So while quality is an imperative; service has to be immaculate."

His company has provided the wiring and electromechanical assemblies for more than 500 aircraft simulators, over 1000 radiotherapy machines, over 20,000 railway carriages and over 5000 machine control systems, for companies which include Bombardier, Siemens, and Varian.

He likens the customer's selection of a contract manufacturer to the b2c example of choosing a pub to go to. "A pint of lager is the same wherever you go; people decide to visit a particular pub over another because the staff are service oriented, the pricing is right, and the facilities makes it a better user experience; and contract manufacturing is the same."

While Time 24 provide design services, the majority of work has always been to manufacture other companies' intellectual property. "In a flight simulator, some of the genius software which makes it look like the pilot is landing or taking off from Hong Kong airport is the vital IP, but the wiring and

the electro-mechanical assembly can be outsourced," explains Shore.

Would Time 24 consider developing their own IP? "If we had some genius idea, maybe, but we would never do anything that threatens the relationship with a customer," he says.

And why would they need to? For a contract manufacturer, picking the right industries is a more important focus in order to avoid feast-to-famine syndrome. Those with barriers to entry. "Competitors can't just turn up and go for rail contracts," explains Shore by way of example. "There is a high level of quality approvals required because it is safety-critical work."

As a consequence, Time 24 are experiencing their strongest growth for years; a 30% increase in turnover, which will take the business to £19million.

And there's more on the skyline. "Boeing and Airbus are saying that there is a massive shortage of new pilots; something like 600,000 will be needed before 2035. That means more demand for simulators," Shore explains.

"As for radiotherapy machines, two world leaders are based a quarter of a mile apart, just up the road from us, and they are both doing remarkably well."

For the rail industry, Time 24 manufactured the wiring on 600 Crossrail trains, with High Speed 2 which come on line, and "significant growth" in exports to European markets.

One upside of Brexit could be that UK government infrastructure contracts might be less likely to go abroad, which would be good for British contract manufacturers. "Companies have been waking up to the fact that if they don't use British suppliers or manufacturers, their chances will be reduced for getting rail contracts," Shore suggests.

But he thinks more manufacturers need to be ready to adapt to changing technology. "There is a level of disruptive technology in every aspect of our lives," he says. "Unless you wake up to it, you won't survive. Most people had a Nokia phone in the 1990s but who has one now? Blockbuster didn't listen to the coming of film streaming. There's a legendary story that they had the chance to go into business with Netflix; the opportunity was there but they turned it down and were bust within a couple of years. It was the same with Kodak; they didn't 'get' digital, and they missed that opportunity.

"And now, driverless cars are coming quicker than people believe; that could mean accidents will decrease so much

that if your business model is selling car insurance, you should have already started to think about alternatives. There are so many disruptors that you can't assume the model of yesterday ago will be right for today.

"For example: "Airbnb and Uber are really software-based companies, they don't own any hotels or taxis. And Marks & Spencer are having a fascinating dialogue about partnering with Amazon. That's an example of companies which could be considered to be competitors jointly working out how people are buying these days."

His point is about readiness to change the model. "Any really smart company would say they should change before change comes," he explains. "Or at the very least they have to be able to adapt to change, and quickly. There is a saying that if you don't know where you are going, you'll end up somewhere else. You don't have to have a rigid business plan but you have to have some focus and be able to adapt it.

"In particular, it's now a pre-requisite that every manufacturing business needs to be looking at how to automate repetitive processes to reduce lead times and keep costs down. If we quote eight weeks and another company says they will complete the work in four, we have a

problem. You have to adjust to the speed of change that's coming with the fourth industrial revolution - the internet of things - and focus on getting more efficient by using better IDT (industrial digital technology)."

He cites Siemens' smart factories, where everything is geared up to so-called Industry 4, the name given to the current trend of automation and data exchange in manufacturing technologies. "BMW are really robotised as well, and are looking for smart companies in their supply chain. So if you don't digitise the process, competitors will get an edge by doing everything faster and better."

Shore's focus is not Industry 4, but a "less extreme" approach that he calls Industry 3.5: digitising and interconnecting all the links in the supply chain between the customer and the supplier to become smarter, quicker and more efficient.

Shore explains a barcode system which Time 24 have been developing. "Information is being fed back all the time," says, "so it's about being able to monitor what staff are doing which gives immediate capacity management information and alerts us to any problems. It tells us where every tool is and what it's being used for; it identifies potential shortages of parts. And all of that data is on the dashboard." But that

needs to go further still, he says. "Some customers want to tap in live over the internet and see exactly for themselves where their product is."

The software alone in the barcoding system cost £50,000 and it's still in its early stages. Total costs could climb to £250,000 over five years, but Shore predicts getting a return on investment over five years. And there's something equally important as a consideration: "Customers will know they are dealing with suppliers at the top of their game," he explains.

Not that the IoT is without its drawbacks. "Customers are driving cyber security down the supply chain. I really get that. But the more IoT, the more robots, the more the cyber security risk," Shore muses. "With IDT, you have a signal say from the drinks machine to a specific supplier to say that a particular part of ingredient needs replacing and when. There are smart factories with self learning machines. All of this is it is a hacking opportunity. So companies need an actual strategy for cyber security."

Shore feels the UK is lagging behind other countries in terms of investment in automation. "As a nation we need to invest in this kind of connected manufacturing," he says. "Elsewhere, automated repetitive processes are

being replaced by robots. This country is behind both China and Europe and well down in the world capital investment league."

Automation is important, he says, as a means to fill the shortage of human labour and skills. But, he adds: "Instead of making the necessary investment, we have been pulling in low-cost people from overseas. France and Germany are investing in kit and automation instead, and the productivity stats show they could take Friday off and still be more efficient than us. That needs to change here and I think it will. It has to.

"In the post-Brexit world, skilled labour won't be coming here as readily as before; without a doubt some have already been heading back home. So labour rates are increasing - and currency changes are increasing costs. Either you swallow that and margins are reduced, or you try and put the cost on to the customer, which will result in a very inflationary environment."

Shore recalls the saying that in future manufacturers will have two employees: a man and a dog. The man is there to feed the dog and the dog is there to stop the man touching the machines.

But Shore's not talking about machines replacing humans entirely. "You can't

automate everything - you still need a wire man who can read a schematic drawing, for example," he maintains. "So manufacturing companies will still have to invest more in training and development because we know some of those skills won't be there otherwise." Time 24 are recognised as a training house by the Institute of Printed Circuits and Wire Harness Manufacturers Association and Shore says: "We have to bring in more young people and training them, because if we don't, we are going to have a serious issue. But it's not the complete answer. We will train as many as we can but we need right now more of the top-end in terms of skills, people who already know what they're doing."

As one way of addressing the skills shortage and the cost of labour here, Time 24 have a manufacturing plant in the Czech Republic where about half of the two hundred staff are based. That facility has been crucial, says Shore. "Had we not had that lower-cost Czech unit, some of the big rail contracts would not have come our way."

It's a very different picture from the 1990s, where suppliers had to make a point of having facilities near their large manufacturing customers. "Supply chain partnerships were all about location," recalls Shore. "We had plants in Derby to be near Bombardier, and one in Swindon

to be near the likes of Westland. But in the noughties, globalisation kicked in and manufacturers were no longer concerned about your location; they just wanted low-cost sourcing."

Even the Czech plant has its issues concerning competitiveness: falling unemployment is putting upwards pressure on wages. However, the cost of premises in the Czech Republic remain low, so the facility is still more viable as a route to markets in Germany and France, not just as a production facility for the UK.

But Shore knows that competitors are also looking at setting up plants in the next generation of cheaper overseas countries – Tunisia being a case in point. "I'm very proud of what we've done over the past thirty years but I continue to be alert," he says. "The moment you think you can simply carry on with your existing arrangements, well, that's the most dangerous position to be in."

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