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# Nick Hughes

**Dave Songer** spoke to Nick Hughes, sales director at Hitachi Rail Europe, about the company’s contribution to the Northern Powerhouse, the ROSCOs new approach to business and its HS2 aspirations

**A**s I sat at the head of Hitachi’s huge 30-seat boardroom conference table waiting for Nick Hughes to greet me, I thought how much had changed for the company since its last meeting with *Rail Professional*. Back then I sensed nervousness; perhaps an unwillingness to divulge too much, lest it scupper any future deals.

All evidence of this was gone when I met Hitachi Rail Europe’s sales director. A little more than a week after confirmation of the deal with TransPennine Express, Hughes cut a figure that seemed pretty satisfied with the way things are going. I began by asking him if things were indeed going to plan.

‘Yeah, very much so. We signed the contract with First Group and Angel on March 31st for 19 new train sets for the latest TransPennine Express franchise, which will bring new intercity services for the Northern Powerhouse. We’re very pleased with that contract, as it also includes a maintenance package to support the trains in service, which is an important part of our business model. We prefer that approach, where we’re in charge of the maintenance to ensure train performance is right.’

Hitachi has a lot of work now; will there be sufficient capacity at its County Durham manufacturing facility, Newton Aycliffe? ‘It will reach capacity in the second half of 2018, which is good because that’s where we’ll do the main assembly of the TransPennine sets, so it works quite well. Up to that point we’re delivering the IEP trains and we’ve also got the contract up in Scotland with Abellio ScotRail.’

## The Northern Powerhouse

The prime minister and the chancellor hailed Newton Aycliffe at its opening for ‘returning manufacturing back to its British birthplace’ and for the government’s commitment to The Northern Powerhouse. I wondered what Hughes made of that.

‘Well, it was certainly a great day for the company. We looked at 41 sites in total around the UK and decided on the north east for three principal reasons: the resources of manufacturing process that are on the doorstep; the logistics – Tees Port is nearby; and the passion of the people and the workforce. We thought we could really connect into the region and create something very special.’

Referring to the opening of the plant as ‘the final piece in the jigsaw’, Hughes confessed that although Hitachi hadn’t foreseen that level of political profile, he could understand why it received the coverage it did. ‘Employment, advanced manufacturing, transfer technology, whichever way you want to badge it, they’re important political messages and we got the wholehearted support from David Cameron, George Osborne, secretary of state for transport Patrick McLoughlin and rail minister Claire Perry – it was quite front row.’

‘I can’t remember when the last train manufacturing site was built anywhere in the world, I think you’ve got to go back 30 or 40 years. It certainly wasn’t in the UK. It created a fantastic vibe around the facility and that’s what you need when you’re opening factories: momentum.’

Now Hitachi has put down its roots, does

it have any more plans to get more deeply involved in the region’s enterprise activities?

‘Yes, we’re co-sponsors of South Durham University’s Technical College’, an approach that is ‘very much the Hitachi way of doing things’. ‘We take a very long-term view of strategy and this is us investing in the youth of today, giving them the opportunity to learn some skills and to become engineers and technicians in the rail industry – whether mechanical or electrical.’

Certainly, the local supply chain is reaping the benefit of Hitachi’s new foothold. Hughes told me that 70 per cent of the various elements sourced for the IEP train come from within a 50-mile radius. ‘It’s about Hitachi putting down very firm foundations. Yes, of course it’s about the factory, because they’re going to build the train, but it’s also about investing in youth and making sure the supply chain supports the factory as well.’

‘We’re very active in the North East Chamber of Commerce, so I think we’ve made a very good impression in the region. I think people can see that we’re here to stay and that we’ve got some very big plans to develop the whole region on the back of this factory.’

## Bringing it home

Mentioning a meeting he had with employees of another major Japanese company based in the area, Nissan, Hughes alluded to Hitachi’s aims to follow in the car manufacturer’s footsteps and export into continental Europe.

But what of its imports, specifically the trains currently designed and built at its



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Kosado manufacturing plant in Japan before they're delivered to England and produced here?

Describing Kasado as 'the mother factory', Hughes said that while it remains an important part of the company's manufacturing strategy it won't necessarily always be that way. 'Kasado sets the standard on what we used to call pre-series trains but I think that over a period of time, when Newton Aycliffe is an established facility that is regularly producing, I don't see any reason why we need to continue with the process of those first few trains being built at Kasado.'

'We do it so that when we do start manufacture and final assembly on the series production in the Newton Aycliffe facility we've got some ready-made units that we can familiarise ourselves with.'

If that does happen, Hitachi's confidence in its trains will be at a high following the Human Factors and Ergonomics Society design award it and DCA won for the Class 800/801. What, I wondered, would HS2 trains look like and include, should they win the bid – captive and classic compatible? Not able to provide many details on the eventual design, he did confirm that a classic compatible would work on HS2 and the

conventional network and that a captive train would be labelled the British Bullet Train, part of a process to 'take the Japanese concept and apply it to the UK network'.

'In terms of big projects there's none bigger than HS2, the project is on everybody's radar and there are seven or eight manufacturers all very keen to offer products for HS2.'

To demonstrate 'Hitachi's expertise in other markets', and its ability to work with the competition, Hughes gave me details on its involvement in Italy's high speed network, where his colleagues are building the ETR1000 for Trenitalia out of its Pistoia manufacturing facility – one of the new plants it acquired when it purchased Italian train manufacturer AnsaldoBreda in November 2015.

'Building these trains in consortium with Bombardier and Trenitalia they are, like the HS2 requirement, 360kph (223mph) trains that are fully TSi (Technical Specifications for Interoperability) compliant, meaning they're up-to-date and compatible with all the other European standards and norms. Operating between Milan and Rome, nearly three quarters of the trains are now running, with the rest in service by the end of the year.'

### The best bid

Far from complacent that Hitachi will be top of HS2's list, Hughes repeated an excerpt from the talk he gave at Manchester's TransCityRail North last year, when he said he firmly believed the award would go to those with the best bid, as 'government procurement processes are carefully scored and evaluated and have to be transparent, visible and auditable'.

Keen to provide some of the reasons that could put Hitachi on top of the pile, Hughes told me that a lot had changed in a relatively short period of time at the company. 'We've got a UK footprint now. We've set up a UK business and by the end of the year we'll be employing 2,000 people across all our sites and depots.'

Armed with Hitachi's 'high speed pedigree from Japan' (the country used the 1964 Tokyo Olympics to introduce high speed rail into Japan) and its belief that it can 'adapt to the UK market to build the trains', Hughes said it has the capability to 'put together a compelling offer for HS2.'

'With the facilities that we've got and our maintenance track record, I'd put us against anyone. We're building depots, we're building brand-new facilities at Doncaster, Stoke Gifford and Doncaster Carr and we're also upgrading existing facilities. I would like to think that we tick a lot of boxes for HS2 but the proof will be in the pudding when the procurement evaluation is finished.'

Asked whether competitors for the franchise would have anything that could worry Hitachi, Hughes was diplomatic. He

Hitachi Rail Europe will supply 95 train carriages for the latest TransPennine Express franchise





The Class 800 won the Human Factors and Ergonomics Society design award

said everyone had an equal chance of being successful and pointed out how far China had come, bringing about a situation where 'four, five or even six players could win it'.

'People can see HS2, they can see a new tube for London, they can see all the franchising bids and that attracts manufacturers from around the world. There's a very, very healthy manufacturing base here in the UK now, I think it's one of most competitive markets for rolling stock and maintenance in the world.'

Perhaps referring to his former employer, Alstom, which 'promised' to bring production to the UK if it wins the HS2 contract, I asked Hughes if that would give Hitachi an advantage. With another chuckle, he said he 'wasn't surprised' that a number of manufacturers were making statements about additional capacity and suggested that much of that was down to Hitachi. 'They've seen what we've done, which has been applauded around the industry, and I think it's kind of set the bar at a new level. I think others will follow.'

What sort of contract with HS2 would Hitachi be looking for, then? 'Well, obviously the rolling stock and maintenance contracts and the depot but we'll probably also compete for the signalling and rail control systems', an area Hitachi reinforced when it purchased Finmeccanica's 40 per cent stake in signalling and train control company, Ansaldo STS. 'I think that's given us more of the multidisciplinary approach that is used on more and more procurements; more of a total package.'

Perhaps unsurprisingly, Hughes urged caution on having too many cooks. 'If you've got an organisation with a very strong engineering, procurement, project management capability as a buyer then it makes sense to go out and buy the system. If you break up that system into its individual lots and components somebody has got to do the system integration and somebody else has got to manage the interfaces and the integration.'

#### 'Exceedingly high speeds'

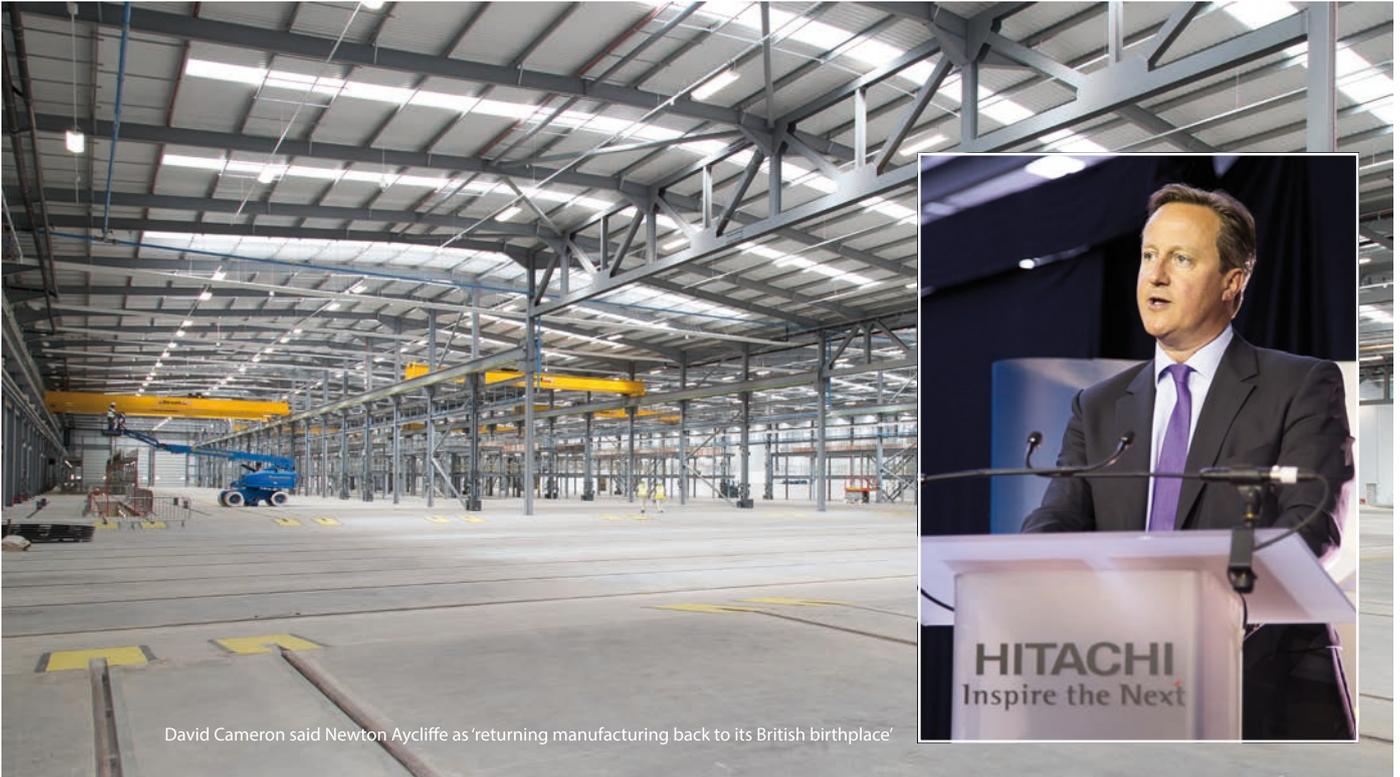
Of course, not all parties have such confidence in HS2 as Hughes. What does he think about Professor Peter Woodward's claim that is at risk of track failure and derailling due to the exceedingly high speeds trains will travel at? 'Exceedingly high speeds?' Hughes asked, as though it was a concern that had been raised for the

first time. 'I think, when you go through any process of this type you're going to get supporters and detractors and you're going to get views from across the spectrum. The great part about the way we do business in the UK is that we consult all parties and get views from across the industry and I think it's one of the few industries that works in this way.'

A strong advocate of such concerns being taken on board, Hughes was unequivocal about the safety of high-speed networks, primarily down to their prevalent use across the world. 'By looking at the lessons learnt on the continent we should be able to produce a high performing, safe and reliable railway. Until it gets Royal Assent I'm sure you'll get some negative comments but I think in the main there is wholehearted support.'

Wholehearted support isn't there from

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David Cameron said Newton Aycliffe as 'returning manufacturing back to its British birthplace'

all corners for the IEP contract. Christian Wolmar described it as the 'Worst train deal in history - they [the trains] are way overpriced'. Hughes disagreed and pointed out that the IEP deal was done at a time where there was close scrutiny on the ROSCO's traditional procurement method. He added that it was important to look at the whole package when considering critical comments like Wolmar's.

'We lease the trains onto the two operators, we've invested in new depots and upgraded existing facilities and we're staffing this organisation so that it can deliver the high level of performance that IEP trains will require.'

A major plus for IEP, said Hughes, is how it reduces the public's liability and places more responsibility on the operator. 'I've heard people say that it's a very successful deal as it will transfer full risk to the private sector, something the DfT in particular are pleased with. Others from around the world look at that model with great interest,' he said passionately.

'In the early days of privatisation everybody was worried about risk allocation. Who was going to manage all those processes, introduce new trains and where was the money going to come from? IEP answers a lot of those questions. Not many companies' balance sheets are strong enough to do what Hitachi did.

'You need to have significant strength in this area and financial support from the banking community because the way it was financed meant we had to arrange debt finance. We did that as part of the deal but people probably don't talk about that as much as they do about the actual headline train price. It's important to look at it in the broader context, the whole deal.'

#### Aftercare package

And the £5.7 billion aftercare included in the IEP deal? Roger Ford, editor of *Modern Railway* magazine, said the 27-and-a-half year deal has 'lumbered us with huge costs twice the cost of a lease train'. 'Costs again, you see. I think that what you've got to look at here is that first and foremost it's a 125mph train, so the specification is above what you would normally see in the UK market, where 80 per cent of trains run at 100mph or less. Secondly, in order to provide outstanding levels of performance for the fleet, Hitachi has taken on risk by investing in facilities and recruiting staff.'

'You've also got to consider that the fleet includes some bi-modes; that's two trains in one, which means the cost of maintaining it will be higher. Maintenance is for the long-term and you have to have a view of investment and train performance over a long period of time. We've taken a twenty-seven-and-a-half year risk and it's not without risk because if you get the calculations wrong you'll be wrong for a long time.'

On the bi-modes' performance, if electrification is delayed will it be fully up to the job? 'Well, we know that the Great Western Main Line electrification



‘When the train’s running at full speed you can stand over the diesel engine when it switches from electric power and you don’t notice that it’s started up, it’s that smooth’

is going ahead, those that use the line can see the posts going up every day. As for the bi-modes falling short, I can’t see that happening.

‘This is now our third bi-mode order and when we go through a procurement there’s a fairly rigorous exercise conducted by the customer on wait and journey times compared to stopping patterns and diagrams, involving some quite detailed calculations. If we weren’t meeting the journey times or providing the service that’s expected then I don’t think they would buy the trains.’

Particularly proud of the train’s technical ability, Hughes said: ‘When the train’s running at full speed you can stand over the diesel engine when it switches from electric power and you don’t notice that it’s started up, it’s that smooth. That’s some technical achievement!’

#### ROSCO’s

In regards to the purchase of trains, the DfT is said to be highly suspicious of the ROSCO’s; how has it been to work with Eversholt? ‘We’ve got a great relationship with Eversholt, as we do with all the other ROSCO’s. They were integral in the 395 and they were behind Hitachi when it entered the UK back when they were HSBC rail, so that relationship goes back to 2004/05.’

‘Now of course, with the TPE deal, we’re working with Angel, which we’re very excited about – in terms of volume, they’ve done some of the biggest train deals.’

Hughes told me that what ROSCO’s want is operational flexibility and to be able to trust the trains. ‘Due to the fact that the bi-mode is able to operate in two modes, the ROSCO’s can see a train with a very good leasing life for the privatised market with almost go-anywhere capability that’s helping to connect our cities up more.’

On whether Toc’s should have a bigger role to play in train procurement, rather than the ROSCO’s, Hughes explained that the system he first witnessed had changed, with ROSCO’s now brought in at the end of the process rather than the beginning. ‘When I first came into the industry, the most popular model of procurement was when the operator would appoint the financier, the ROSCO, first of all and they would help the operator select the best train. Obviously the financier had an interest because it was going to be on their balance sheet and they would own the train for the next 35 years, so they were involved with the whole process: the selection, the contract negotiations, everything.’

Now, though, that’s changed. ‘Since privatisation, operators have gained lots of

experience and they’re more confident to take on the whole process themselves. They make their own selection and preferred bidder selection and then run a financing process on the train to identify who the preferred financier is.’

#### Shaw Report

In the Shaw Report’s latest recommendations on the future shape and financing of Network Rail, Nicola Shaw outlined a need to improve financial discipline, develop skills and improve diversity. Did Hughes care to comment on any the report’s findings?

‘Well, what I would say is that Network Rail are very good in this situation as they’ve given a number of industry briefings leading

the chart that Hendy often produces to illustrate the rapid growth in passenger numbers. ‘It’s been year-on-year-on-year growth for the last 20 years and I think that is investible. The demand side is growing all the time. It gives confidence.’

‘Pete Hendy has commented on a number of occasions about the strength of the management structure at Network Rail but, like any business, they’ve got their problems and they need to improve and we’re very supportive of them – they’re an important customer, particularly on the Thameslink TMS (traffic management system).’

Finishing up our meeting, I asked Hughes what his personal hopes and aims are for the company. Blowing out his cheeks as he weighed up the question, he told me it had been a ‘very good 12 months. We set out with a number of objectives last year across different parts of the business. Order intake is one that I’m obviously very involved in and to keep Newton Aycliffe busy for the foreseeable future,’ he laughed, ‘so I’m very happy the TPE order came through – our



up to the report’s release. I think I went to two with Nicola and maybe two with Pete Hendy, so there were no real surprises for me or anyone in this organisation.’

Hughes believes that for Network Rail to receive its largest ever funding for Control Period 5 showed ‘huge confidence’ in its operations but that now is probably the time for more outside help.

Progress, he said, has been made in this area by Hendy and Shaw, ‘both of whom have looked at the TfL model’, which uses third-party financing, with a view to applying it to the UK rail network.

‘As a result of this external funding TfL isn’t as indebted to public funds and I think that has probably driven a lot of the thinking in the report,’ said Hughes, who held his arm at a 45° angle to demonstrate

third contract for rolling stock. We can see some great opportunities coming up in the next three years, with TfL and the tube a big one for rolling stock and signalling.’

Pointing to a picture of Hitachi Rail Europe’s first award, the HS1 Javelin, Hughes said to be part of something special Hitachi needs to maintain momentum. ‘There’s a legacy of success that’s been passed on to the management and winning big projects and we want to continue that.’

As I packed up to leave the room I suggested, with tongue firmly in cheek, that perhaps we should pencil in another interview; *Rail Professional* seems to be a good omen. This released the biggest laugh of the day. ‘Well, you must be. Twelve months on from now, yeah there may be a couple of contract wins.’