

UK employment

New diagnostic tools help tackle UK rail maintenance skills shortage

Sector faces challenge as train numbers rise, staff retire and EU nationals depart



The rail maintenance sector needs to recruit 11,000 technicians and engineers in London and south-east England by 2024 © Tolga Akmen/FT

Robert Wright in Acton, London 9 HOURS AGO

When Brad Gray started work in January maintaining rolling stock for [Bombardier](#), the world's biggest train manufacturer by sales, he suffered "quite a culture shock" over the technology at his disposal.

The 33-year-old former heavy trucks mechanic had used computer equipment to diagnose faults in his previous job but, as he trained to work on the trains Bombardier is making for [Crossrail](#), the new cross-London rail route, he found the data the trains supplied were "way more advanced".

The new diagnostic tools available to train manufacturers' maintenance businesses are helping to ease one of the most severe [shortages of appropriately trained staff](#) in any segment of the UK economy. Because it makes it easier and less labour-intensive to spot faults with trains, the technology allows companies such as Bombardier to recruit people like Mr Gray and train them quickly in basic maintenance work.

The sector nevertheless needs to recruit a daunting 11,000 technicians and engineers in London and south-east England by 2024, according to the National Skills Academy for Rail. That compares with the 8,000 specialists currently employed in the area — the region worst hit by the UK skills shortage.

Bernadette Westmoreland, UK head of human resources for Bombardier Transportation, the company's train manufacturing business, said the new technology removed the need for technicians to diagnose train faults.

“The information system will tell you, ‘You need to look at this particular area’, whereas historically you would have had to get in under the train, looking, assessing measuring,” she said.



Brad Gray has been impressed with the new diagnostic tools available after starting work at Bombardier © Tolga Akmen/FT

Yet the sector is still struggling to cope with the growing number of trains in operation, to overcome staff losses through retirement and to cope with returns home by non-UK Europeans, who make up 17 per cent of the workforce.

Neil Carberry, chief executive of the Recruitment & Employment Confederation, the recruiters’ trade body, said a key challenge in recruiting engineers was that “the skills base is dependent on long-term workforce planning, which government and training organisations need to work together on to get right”.

The shortages are affecting companies with depots in south-east England. Other companies grappling with the challenges include Germany’s [Siemens](#), which has built several new fleets for south-east England, including new trains for the Thameslink cross-London route.

Japan’s Hitachi faces problems at its new North Pole depot, directly across the railway tracks in north-west London from Old Oak Common, the Bombardier depot where Mr Gray works. North Pole is maintaining [new IET express trains](#) being supplied to Great Western Railway.

Neil Robertson, chief executive of the skills academy, said the industry’s productivity was 6 per cent lower than it would be if it could recruit staff with the right skills. Wages in the industry were 6 per cent higher than they would be if labour supply were not constrained, he added.

“The graph is climbing,” Mr Robertson said. “But it’s not climbing at the rate that would deliver that outcome.”

Employers are responding by rethinking recruitment practices. Bombardier’s hiring of Mr Gray illustrates how rail companies are hiring people with transferable skills from other sectors, particularly military veterans. They are also training growing numbers of apprentices and

working to attract women and ethnic minority candidates to an industry traditionally dominated by white men.



Attracting women and ethnic minority candidates such as Zahra Akbar is vital for the rail industry © Tolga Akmen/FT

Another part of the answer is for employers to take on and train more people such as Zahra Akbar, a graduate trainee engineer from Pakistan, who works for Hitachi. Ms Akbar, 24, came to the railways after completing a masters degree in telecoms and wireless networks at Queen Mary University of London.

Knowledge like Ms Akbar's is vital to the industry as train safety increasingly relies on signalling information conveyed via wireless networks.

"I was really excited to attach my name with a big name brand like Hitachi," Ms Akbar said.

Yet there is no mistaking the strains imposed by the shortage of appropriate staff. Wage growth for rail engineers in London and the south-east is running at 9 per cent annually as employers vie for staff. Hitachi said it takes about 45 days on average to fill vacancies for technicians at North Pole.

Ms Westmoreland said Bombardier consistently had 160 to 180 vacancies for technicians and engineers in UK rail, and the shortage was delaying work to improve train reliability.

"In terms of . . . the next generation of improvement . . . in terms of the amount of time to get a train prepared, cleaned and all the maintenance needed carried out, it takes longer," Ms Westmoreland said.

Mr Robertson expressed confidence that such problems would eventually be tackled. Alongside the initiatives already in place, employers were considering other proposals, including to impose obligations on companies to train set numbers of apprentices for each order won.

While regretting that the problem had become so acute, he described the industry's recruitment plans as the "right idea, right standards, good buy-in".

“But I do wish we had started earlier.”

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