

More Than Just Technical

In collaboration with the OPC, GTR is embedding Non-Technical Skills across its Engineering and Train Presentation teams, supporting confident, safety-conscious behaviours and setting a new industry benchmark



Engineers play a critical role in maintaining the smooth operation of the rail network. Working across depots and trackside environments, they ensure each train is safe, reliable, and service-ready through thorough inspections, fault diagnostics, repairs, and routine maintenance. Their efforts contribute to faster turnaround times and support the roll-out of new rolling stock, improving both operational performance and the passenger experience.

Historically, their role has relied mainly on technical proficiency. So, how could we develop and support these teams further?

Govia Thameslink Railway (GTR), one of the UK's largest rail franchises, is leading the way in embedding Non-Technical Skills

(NTS) training across its entire engineering and train presentation workforce of c. 750 employees. This pioneering initiative, delivered with support from Laura Hedley, Head of Consultancy and Talent Services at the OPC, marks a proactive shift in how engineering competence is developed and sustained.

John O'Shea, Engineering Training Manager, explained: 'Our engineers are technically excellent, but we're always looking for ways to improve. We've seen the impact of incorporating Non-Technical Skills within GTR's driver teams, so we were keen to mirror this best practice. It's all part of our commitment to giving our people the best tools and insights they need to excel, meeting the highest standards in the industry.'

The NTS of outstanding engineers

NTS are the personal characteristics that an individual brings to their role, such as abilities, skills, personality, and motivation. Alongside technical competence, they enable employees to deliver safe and effective job performance.

To excel in their role, engineers need strong attention to detail and a methodical approach. Following instructions accurately, despite time pressures, is vital. Ongoing checks during maintenance or repairs can help catch mistakes earlier, reducing the risk of errors later.

John shared an example: 'Throughout my career, I've sometimes seen engineers arrive on site only to realise they've forgotten a key piece of equipment. This setback can create personal stress and pressure, especially

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when there's a strong desire to do a good job. It can also lead to compromised decisions or risky shortcuts at the expense of their wellbeing. By recognising these situations as opportunities to strengthen Non-Technical Skills, like decision-making, we can help engineers stay focused, safe, efficient and more resilient in high-pressure situations.'

Laura added: 'This NTS training programme wasn't introduced in response to a rise in safety incidents, but because of GTR's ongoing commitment to safety and drive for continuous improvement. They recognised that strong NTS provide a foundation for building technical excellence. By matching industry best practice, their aim is to strengthen teams and deliver lasting benefits for both the organisation and its people.' She continued: 'The OPC has conducted more than 600 Post-Incident Assessments (PIA) with rail employees involved in safety incidents. Our analysis shows that incidents rarely stem from a lack in technical knowledge, but often from a shortfall in Non-Technical Skills.'

A tabletop review to kick-off

The first step was a tabletop review of existing training materials. Laura said: 'It was important to see if any NTS were already part of GTR's engineering training. Some, like communication, were already included. However, the review showed we could strengthen the detail of those already covered and take a more structured, focused approach overall.'

Introducing NTS to the Trainers

All GTR's engineering training team took part in a three-day introductory course on Non-Technical Skills (NTS), covering all twenty-six identified by the RSSB, and their vital role in safety. Following the course, trainers also helped to identify the top seven NTS felt to be the most essential for an outstanding GTR engineer. The initial session helped trainers understand how NTS influence safer working behaviours, setting the stage for developing a dedicated engineers' workshop.

Mike Banner, Train Presentation Trainer, said: 'At first, I wondered what it was all about. But within a few days, its importance quickly became clear, and genuinely intriguing. That made me want to understand it even more.'

John added: 'The feedback was fantastic. Every trainer, including myself, found it fascinating. Exploring how NTS can impact daily operations, and understanding the psychology behind them, really brought the concept to life. For example, realising something as simple as missing paperwork, could be a glaring NTS gap, made it tangible, relatable and impactful.'

Designing the Engineers' workshop

'We believe GTR's NTS engineering training is a trail-blazing initiative, and likely a first for train operators, so we designed the first workshop with that fresh perspective in mind.'

Laura continued: 'We created an introductory session to explore the fundamentals of NTS and their vital link to safety. Knowing the topic would be unfamiliar, we focused on making it engaging, relatable, and easy to approach.'

The workshop covered key questions:

- What are Non-Technical Skills (NTS)?
- Why do they matter in engineering roles?
- How do they support safer, more effective performance?
- What's the link between NTS, personal safety, and incident prevention?
- How does the NTS framework apply in UK rail?

'More than just theory, NTS were presented as practical tools for maintaining high safety standards, clearly linked to real-world engineering application, and brought to life through case studies and videos.' shared Laura.

Empowering the training team

Once the introductory workshop was finalised, the next step was to equip GTR's eleven-strong engineering training team

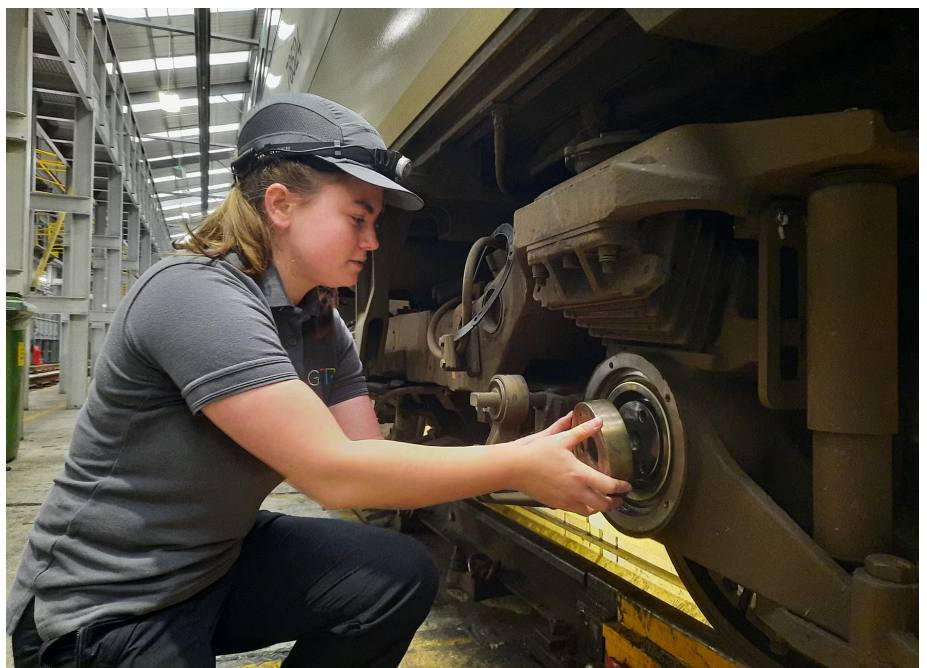
to deliver it to the engineers themselves, through an OPC three-day 'Train-the-Trainer' programme.

On day 1, Laura delivered the full workshop, modelling both content and delivery style as if the trainers were engineering delegates. Over days 2 and 3, the trainers each practised delivering the workshop, receiving targeted feedback and coaching to build their understanding, confidence, and skill.

John explained: 'We already have a highly accomplished training team, so once we'd been trained by the OPC, we have the capability and capacity to take the content forward. What really adds value is our deep understanding of the depots, the people, and the GTR culture. It means we can deliver NTS training in a way that feels very relatable and relevant to our teams. The 'Train-the-Trainer' model gave us the structure, and our experience brings the material to life.'

Laura added: 'The feedback for our 'Train-the-Trainer' model was fantastic. GTR's trainers felt energised and confident. Ready to roll the training out across all GTR depots.'

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Introducing NTS to the teams

The training team has begun rolling out the one-day NTS introduction course to all new engineering and train presentation staff as they join GTR, with plans to extend it to all existing team members. The aim is to embed the workshop across all five depots, and more than 750 employees.

Mike Banner shared: ‘At first, some employees say, ‘I already know this’ or ‘It’s just common sense, isn’t it?’ But once we start to look at the NTS framework, we start to see how the individual NTS elements connect. It’s not about highlighting what team-members are doing wrong, it’s helping to recognise what’s already working well and where there’s room to develop.’

He added: ‘We hope this training also gives new engineers confidence to challenge unsafe practices when they see them on the floor. Some behaviours might have become accepted or the norm over time, but by asking questions, they might prompt existing employees to think twice about what they’re doing.’

Tools to assess key NTS for top engineering talent

OPC Assessment provides a range of proven psychometric tools to help identify high-performing engineers who demonstrate the prerequisite Non-Technical Skills (NTS) needed for safe and effective job performance.

The Safe Personality Questionnaire (SAFE PQ) evaluates personality traits linked to safe working behaviours e.g., cautiousness and conscientiousness. The Safe Concentration and Attention Test (SCAAT) is a leading tool for assessing sustained focus and attention to detail. The Core Skills Mechanical Reasoning Test (CoreM) measures mechanical understanding, crucial in many engineering roles.

These tools are available through OPC Assessment’s user-friendly online platform, Candela™ with some also available in paper format.

The next phase of NTS training

GTR recognises that developing Non-Technical Skills (NTS) is an ongoing journey. With support from the OPC, the next phase of training is already underway for engineers and train presentation teams. Trainers have identified seven critical NTS, such as attention to detail, checking, and risk anticipation, that will be explored in greater depth in an upcoming workshop. The aim is to help the teams understand, apply, and consciously strengthen these skills in their daily work.

To prepare for rollout, Laura will once again lead a ‘Train-the-Trainer’ session, equipping the internal training team to deliver the next stage of the programme.

Mike shared: ‘One colleague came up to me after the introductory session asking how he could develop his NTS further. That kind of interest shows there’s real enthusiasm for the next phase and the teams are already recognising how important NTS are.’

‘This is a long-term programme’ Laura added. ‘Over time, this two-stage approach, starting with an introduction and followed by focused NTS training, will become embedded into the employee lifecycle in GTR’s engineering and train presentation teams.’

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Once fully rolled out, GTR plans to assess NTS alongside technical skills, and integrate NTS into other processes like wellbeing conversations, one-to-one development, and incident investigations.

Setting a new industry benchmark

This initiative marks a pioneering step in the rail engineering sector. While NTS are well established for some key roles like train drivers and signallers, their structured application in engineering and train presentation is probably a first. By placing equal value on Non-Technical Skills, GTR is shaping a workforce that’s not only technically skilled, but also confident, safety-minded, and consistently demonstrating safe, effective working behaviours.

Andy Richards, Head of Engineering Training at GTR concluded: ‘This isn’t just a training programme, it’s a cultural shift. We’re building teams who think critically, speak up, and drive safety performance every day. The OPC’s expertise has helped our training teams embed NTS in a way that’s practical, structured and relevant. It’s been a very collaborative experience that’s helping GTR lead the way in raising safety standards across engineering.’

If you’d like to strengthen your Engineering teams’ Non-Technical Skills from the inside out, contact the friendly team at the OPC, to see how we can help. 



GTR

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