Group Safety, Technical and Engineering

Group Safety, Technical and Engineering (STE) is the Technical Authority for Network Rail. Train performance and safety depend on strong technical capability. STE assures the way assets are managed and maintained, assures operations are safe and secure for passengers and the workforce, assures the way we manage information and assures that the way we run the railway is environmentally sustainable and affordable in the long term. Complementing our assurance role, we deliver key national programmes and offer expert services.

We support the regions and route businesses to deliver and innovate to meet increasing expectations from customers. In practical terms that means optimising standards, processes and tools to reduce costs, improve capability and increase performance to achieve a right time railway both now and for the long term. For much of the rail network that support means helping the routes achieve 21st Century safety and performance from what are fundamentally 19th Century assets.

In Control Period 6 (CP6) we are particularly focussed on improving asset reliability including:



Weather resilience and adaption to climate change



Reducing energy and carbon levels



We are striving to achieve better asset reliability, to improve the availability of the infrastructure, by supporting the routes to achieve a greater than 10 per cent reduction in the level of service affecting failures in CP6. This is driven through the Intelligent Infrastructure programme to apply technologies to predict failure allowing routes to intervene without disrupting passengers and freight.

Under our Responsible Railway Plan we are leading Network Rail's response to the climate emergency, supporting routes to reduce energy levels and reduce our carbon footprint. We are currently developing our new Environment & Sustainability Strategy, which we will be publishing in Autumn 2020. In July 2019 we launched the Safety Task Force to significantly reduce the risk of a trackworker being struck by a train. This programme will accelerate work we already had underway as well as bringing in new initiatives to ensure we finally consign Victorian look out flags to the history books.

As well as driving short term improvements we are managing the research and development (R&D) portfolio

to build a pipeline of change through technology. Our R&D portfolio has implemented an Agile Innovation programme to drive faster innovation at scale by applying agile ways of working to target ideas to deployment in 6-12 months. This will help deliver the technologies the regions and routes require to deliver better performance. The R&D portfolio brings together needs from across Network Rail to improve future safety, reliability, cost efficiency and growth.

STE is the home of leading-edge international railway practice and technology development covering the whole railway system. This encompasses collaborations in the UK, Europe and internationally. Framed by 50 published challenge statements, our relationships with suppliers, research and technology organisations and Government enables us to build and maintain partnerships that share costs and knowledge and shape national and international investment. Through these relationships we also influence railway legislation and regulations.