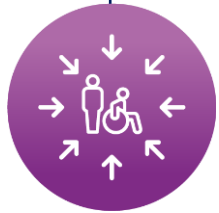


Rail Technical Strategy

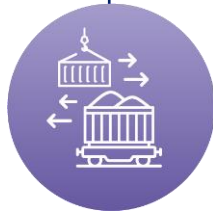
Innovating across Britain's railway

FUNCTIONAL PRIORITIES



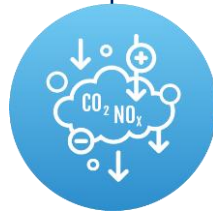
EASY TO USE FOR ALL

Rail will deliver an excellent travel experience to regular and occasional passengers thanks to dependable real-time information, innovative payment methods, and improved solutions for accessibility.



FREIGHT FRIENDLY

Freight growth on the rail network will be enabled through better use of existing and new capabilities of freight assets, and improved whole system thinking with freight at its heart.



LOW EMISSIONS

Carbon and air emissions will be minimised by cheaper and less disruptive electrification, zero-carbon diesel replacement, greater efficiency and removing emissions at source.



OPTIMISED TRAIN OPERATIONS

Train services will be reliable and the capacity of the network improved by real-time management, better train planning and simulation, and shorter headways together with new solutions at nodes.



RELIABLE AND EASY TO MAINTAIN

Reliability and availability will be maximised by design, remote and automatic inspection, and targeted interventions, while whole-life cost is reduced.

CRITICAL ENABLERS



Data driven

Good exploitation of data underpins all the other priorities of the Rail Technical Strategy. It is the key enabler to many of the important and necessary goals that the future railway needs to achieve.



Improved implementation pathways

Collaborative research and innovation with a strong industry pull, drives and de-risks take-up, leading to reliable and timely deployment of novel solutions. Effective alignment with insertion points have a key role to play in ensuring the benefits are maximised. The critical roles that people and culture play are recognised.



Digitally talented workforce

Attracting and developing a vibrant and more diverse workforce is critical. The fast-paced developments of digital technologies pose a further attraction, retention and upskilling challenge. The railway continues to need people from a vast array of technical backgrounds and this increasingly needs to be underpinned by strong digital skills to successfully drive change and innovation.

DESIRED OUTCOMES



1

Support rapid progress towards industry's strategic aims

2

Steer research funding and initiatives to prioritise advances in aged areas

3

Inform long-term investment for replacements and renewals

4

Empower supply chain to deliver the technical solutions required by industry

5

Foster collaboration and provide a conduit for sharing successes and challenges