Data driven

RTS Innovating across Britain's railway

GOALS	WHY?	RECENT POSITION (2020)	STEPPING STONES IN THE NEXT FIVE YEARS	VISION FOR 2025	VISION FOR 2040
Easy access and sharing of data, including real-time data	It is essential to improve business efficiency and effectiveness, recognised in government and industry policies. Timely data allows real-time system improvements and enhanced decision-making for railway customers.	A limited range of data is available through industry platforms/APIs. Most data sets are not available or accessible. A range of assets and other sources generate data in real time, but this capability is not widely exploited.	Create and facilitate data sharing mechanisms. Agree levels of data-sharing and develop template data-sharing agreements. Create and manage priority pipeline of data sets. Capability for multi-modal data-sharing	The combination of effective rail data-sharing mechanisms, and a growing pipeline of data sources makes it easier for business and innovators to understand and access rail data. Compatibility of rail data-sharing approaches enables multi-modal data exploitation.	Ambitious strategies on data accessibility and exploitation are being implemented. These have ensured that rail is recognised as a leading data driven industry that manages, shares and exploits data to the benefit of our customers, the industry, and wider society.
Robust industry-wide data governance	It is an essential enabler for greater sharing of data and assurance of data quality.	Several organisations are developing, or have developed, information management frameworks.	Develop cross-industry metadata to be used in data cataloguing. Determine strategy for data standards. Development of new data standards.	Cross-industry data standards being produced and adopted. Rail Information Management Framework principles being met on cross-industry basis.	
Clear business case for data sharing	This is a key enabler for business across the industry to prioritise and justify making data available.	There is limited research focusing on quantifying the benefits of opening up data sources. Traceability capabilities exist but are not used by the industry.	Develop approach for identifying 'high value' rail data sets. Development of strategy and routemap towards achieving an 'open by default' data-sharing vision Implementation of routemap to 'open by default' data-sharing. Ongoing development of business cases to enable increasing amounts of open or shareable data.	Widespread ability to build cross-industry business cases for the sharing of data. Data is being shared at the right level of openness. High-value datasets are being made available.	
Tools and skills for better data exploitation	Advanced data capabilities are essential for the railway to drive and be competitive and integrated with other modes.	Rail expertise exists for traditional analytics. Cross-industry competence in new approaches to data is limited. Industry is not always an informed buyer and user of 'big data' and 'smart data' solutions.	Identify skill gaps within industry. Develop new capabilities and outputs related to data, including digital twins and advanced AI, so that data can be easily connected to create greater value. Develop and implement (re)training, support and guidance. Focus digital twins, AI and other data analysis developments that underpin the other four functional priorities.	Strategy for ensuring a digitally talented workforce has been implemented. Digital twin capability is strong. Advanced AI techniques are widely available and being used.	