

Developing System Models to Help Railways Embrace Innovative Technologies with Confidence

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Abstract. Railways are under pressure to become more efficient and cut their costs; innovation has a part to play in achieving these goals. The railway is, however, a complex and closely-coupled system, making it difficult in the early stages of development, to be clear what the system-wide impact of innovation will be. The research covered in this paper stems from the idea that computer-based models of existing systems can help overcome this problem, by providing a framework against which the impact of innovation can be identified. The paper describes a repeatable and objective modelling methodology developed for Great Britain's (GB) railways, which elicits objective system data from Railway Group Standards and integrates it using CORE