

RSSB Human Factors

Case Studies - Engineering

Integration in major projects, GSM-R case study

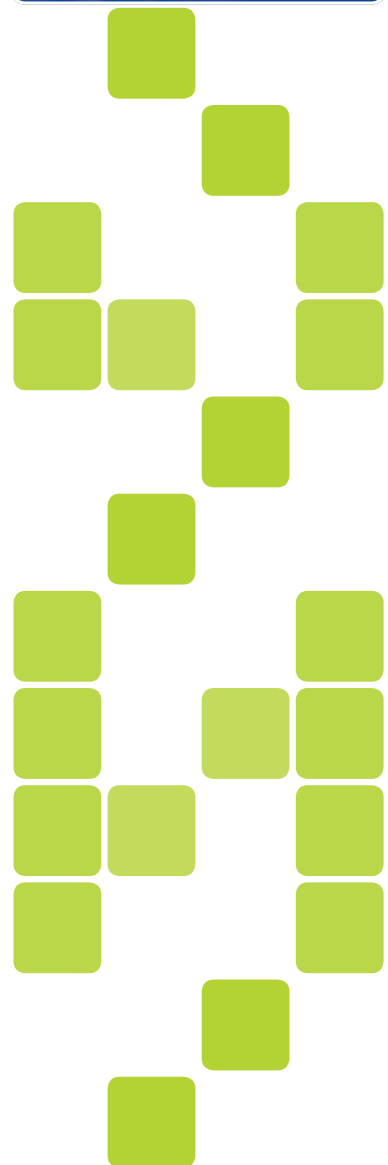
The RSSB Human Factors team have been fully integrated on two cross industry development projects; ERTMS (European Rail Traffic Management System) in-cab signalling system, and GSM-R (Global System for Mobiles – Railway) radio system. In this case study, we focus on the successful integration of Human Factors on the GSM-R project.

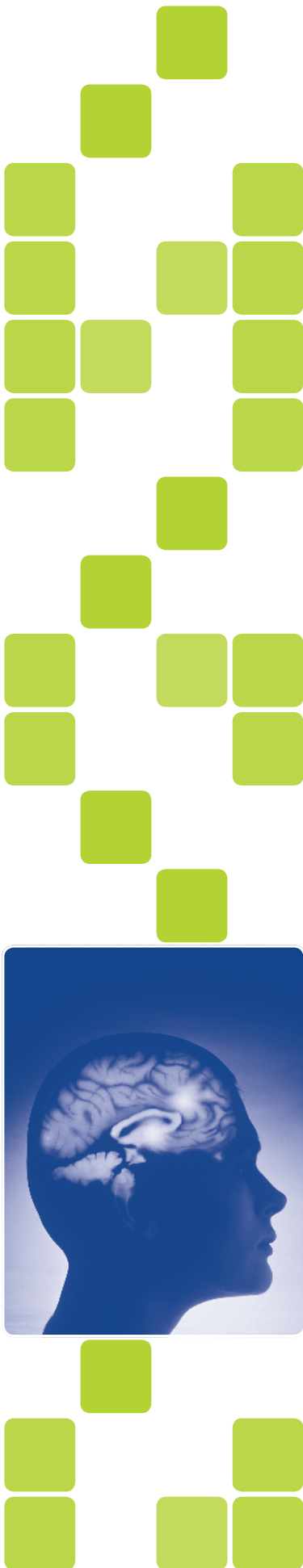
The RSSB Human Factors team has been providing essential input to the GSM-R project since the beginning of the operational design, through the procurement process to the implementation phase, including live trials in the Strathclyde area.

At a strategic level, a RSSB HF specialist is a member of the industry Operations Review Group (ORG) and chaired the Human Factors Working Group (HFWG).

There has also been targeted input to the cross industry Issues Resolution and Training Working Groups.

There has been Human Factors input to the Operational Concept document. During the procurement process, HF requirements have been developed and integrated with the invitations to tender and contract for the train radio.





At a technical level, the Human Factors team have undertaken applied research to identify and resolve key questions. This work has focussed on the driver's cab-based interface (the signaller's interface is being managed by Network Rail) and has included:

- Review of existing radio systems
- Review of the system alarms
- Assessment of fitment of the interface in the driving cab
- User feedback

All of the findings from this work had to be communicated to the stakeholders in a way that clearly demonstrated why any change was necessary and what would happen if findings were overlooked. It was necessary to go beyond just providing the 'right answer' in terms of what interface was needed and what tones should be implemented. We needed to provide a way for these decisions to be realised by working with regulating bodies and European Standards to fulfil both legal and user requirements.