



## What is it?

For an operating rail system to deliver the expected benefits to our customers, it is essential that the human interactions with the system, its sub-systems and sub-system elements are well designed through the application of established Human Factors principles and knowledge. The process for achieving this is Human Factors Integration (HFI).



The aim of HFI is to ensure the human-system interactions optimise system performance, and identify and mitigate risk.

The application of Human Factors involves the evaluation and design of products and systems to make sure that they are safe, and easy to maintain and operate in the context of the rail system to which they are being introduced. It encompasses individual, organisational and task factors which can influence safety and performance at work. This includes people and their interactions with products, systems, processes and environments.

## Why is it important?

The operating performance and safety requirements of the railway are delivered by human beings. Train drivers, signallers and track workers are at the centre of an open and complex rail system. Human Factors therefore presents the single greatest opportunity today for improving rail system performance and safety.

## What we do

CRA has a world renowned human factors capability that is second to none. Having recently partnered with Synergy Consultants Ltd., we offer the full range of Human Factor services.

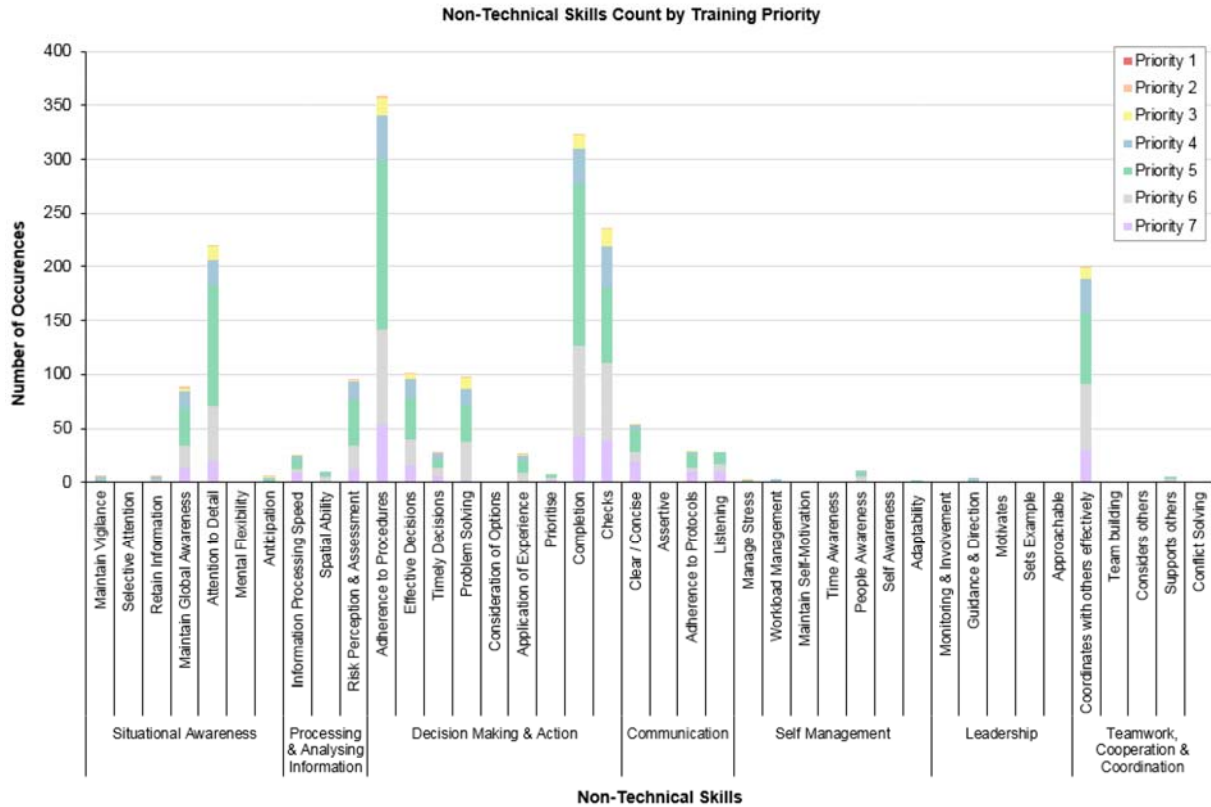
- Human Reliability Assessment
- Human Factors Engineering
- Task Analysis
- Safety Culture
- Workload assessment and job design
- Traning Needs Analysis
- Cultural Change



## Our work

Here are some examples of work that has been delivered by CRA's Rail Human Factors consultants:

- Risk Based Training Needs Analysis for Signallers and Line Information Controllers, Rail Operator



- Development Testing of Rail Specific HEART (Human Error Assessment and Reduction Technique), RSSB;
- Requirements development and management, Task Analysis, Human Error Identification, Workload Assessment, Anthropometric Modelling, Function Process Development/User Interface, collaborative working, workstation and workspace design, end user and stakeholder consultation through focus groups for Network Rail Crossrail programme and Western Signalling Renewal and Traffic Management.
- Research of Contributing Factors Frameworks in developing new framework as part of Safety Risk Register for client.

