



Safety reporting and analysis: A national step change for GB rail

Dr George Bearfield
IRSC 2016
Plenary Presentation

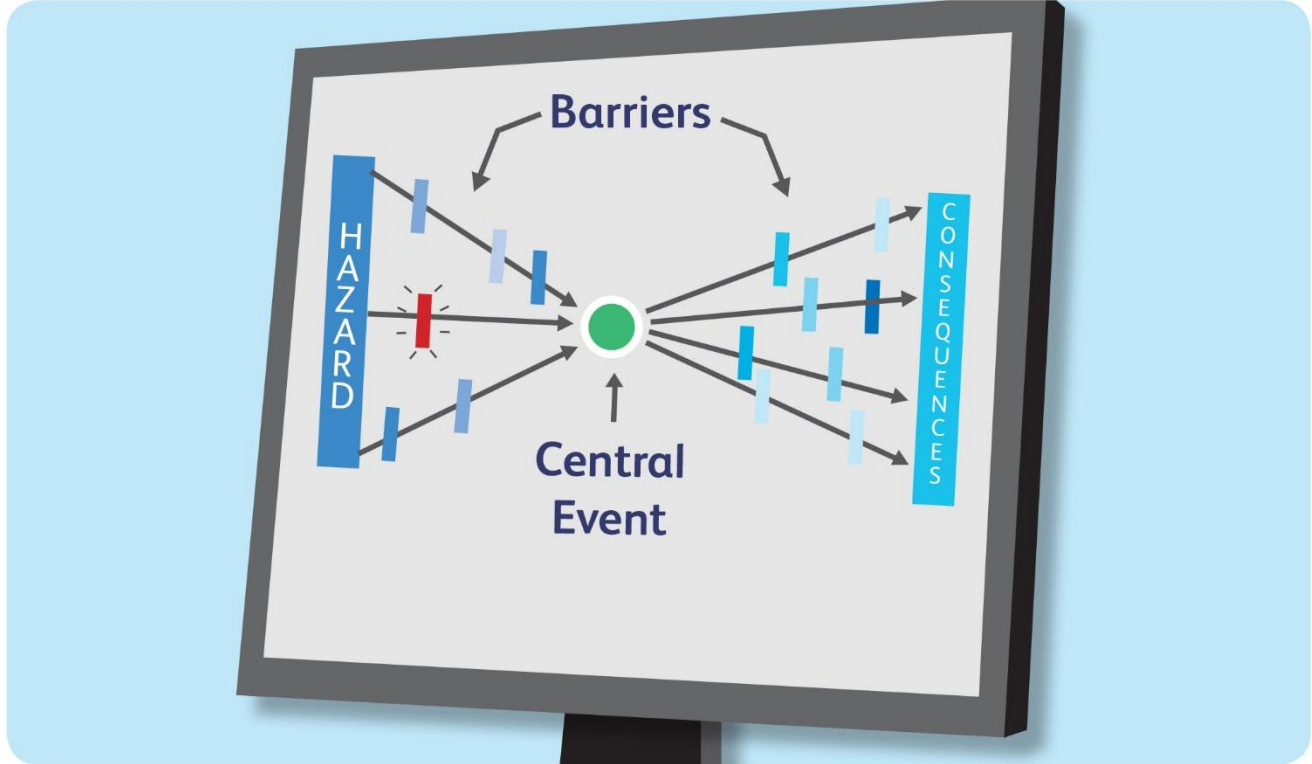


A vision of the near future...













+7 DAYS



“the risk intelligence that a world class railway needs, efficiently provided to the right people in the right format and at the right time”

The journey of UK rail

History – major accidents, major concern

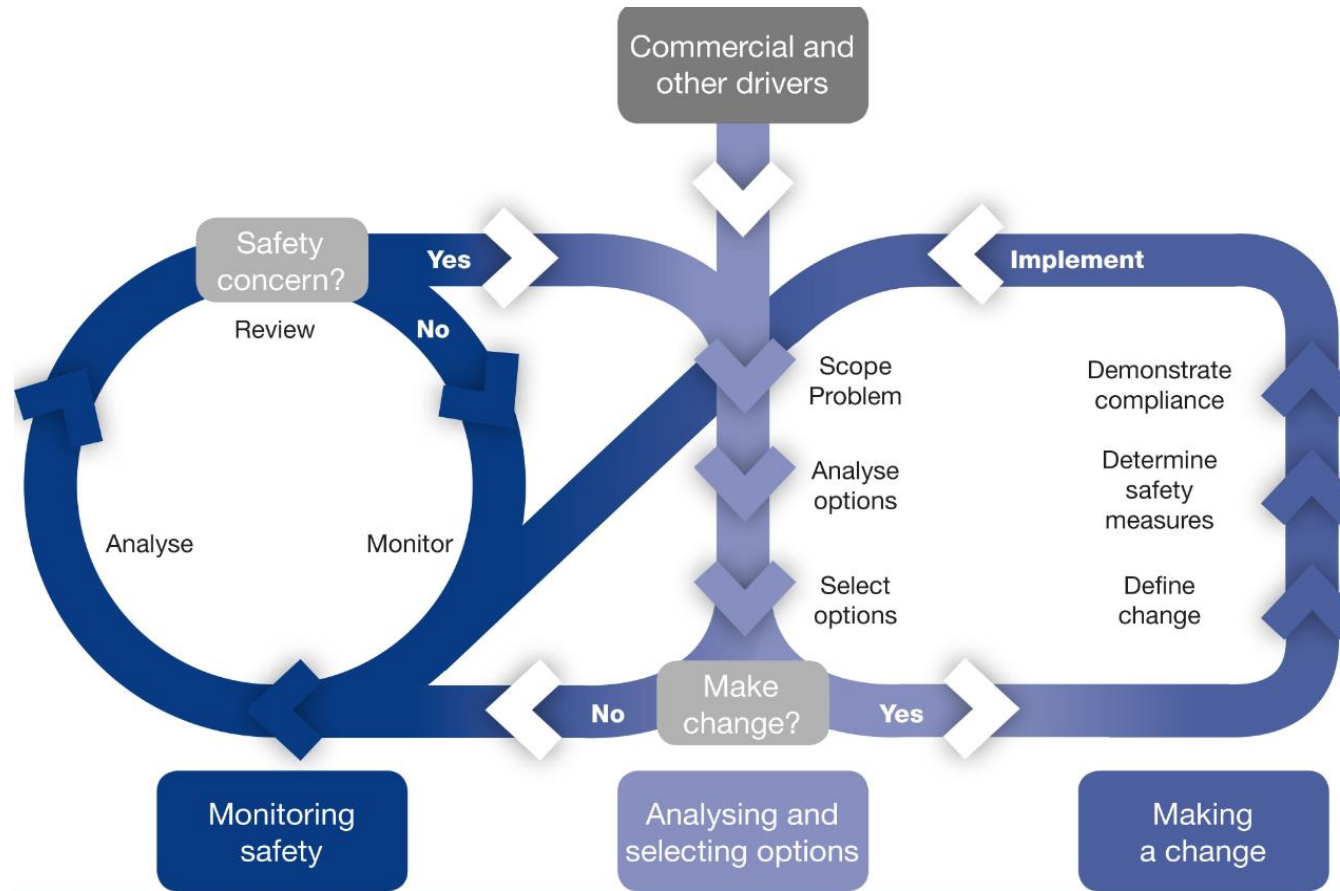
1988	Clapham Junction
1989	Purley
1991	Newton
1994	Cowden, Privatisation
1997	Southall
1999	Ladbroke Grove
2000	Hatfield
2001	Great Heck
2002	Potters Bar
2004	Ufton Nervet
2005	Elsenham
2007	Grayrigg
2011	James Street



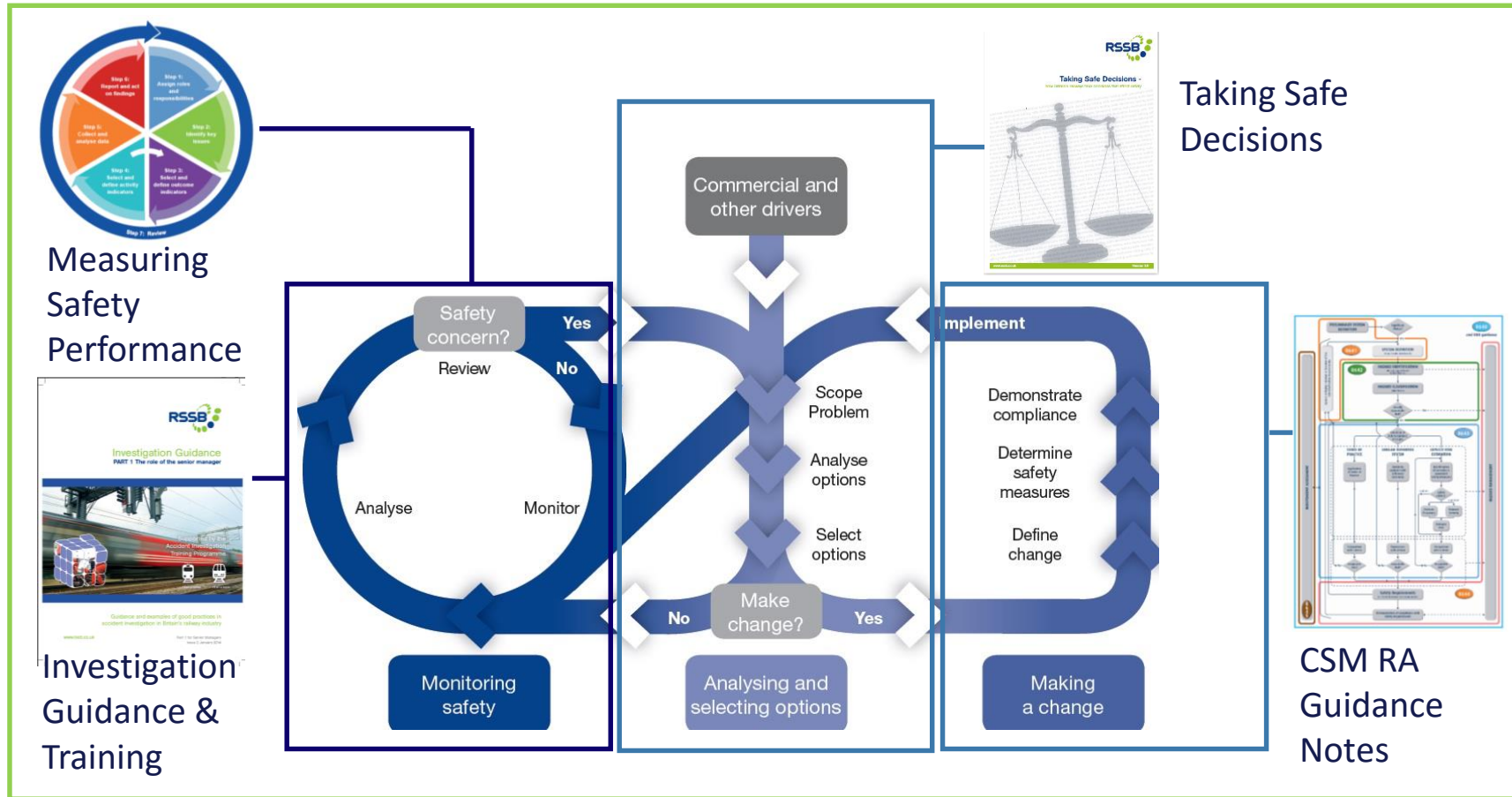
History – major change in capability

1988	Clapham Junction	British Rail Incident Management System
1994	Privatisation	BRIMS continues to evolve
1999	Ladbroke Grove	SMIS developed
2000	Hatfield	Safety Risk Model Developed Safety Risk Model – Risk Profiling Tool Industry agrees to openly share all safety data Pre-cursor Indicator Model
2010	RSSB report into contractor underreporting	Taking Safe Decisions published New ‘Close Call’ reporting system
2016	Launch of ‘Leading Health and Safety on Britain’s Railways’	Data and Risk Strategy Group formed

A common risk management framework



Current offering: guidance and support



SMS Principles:
Moving Beyond
Compliance

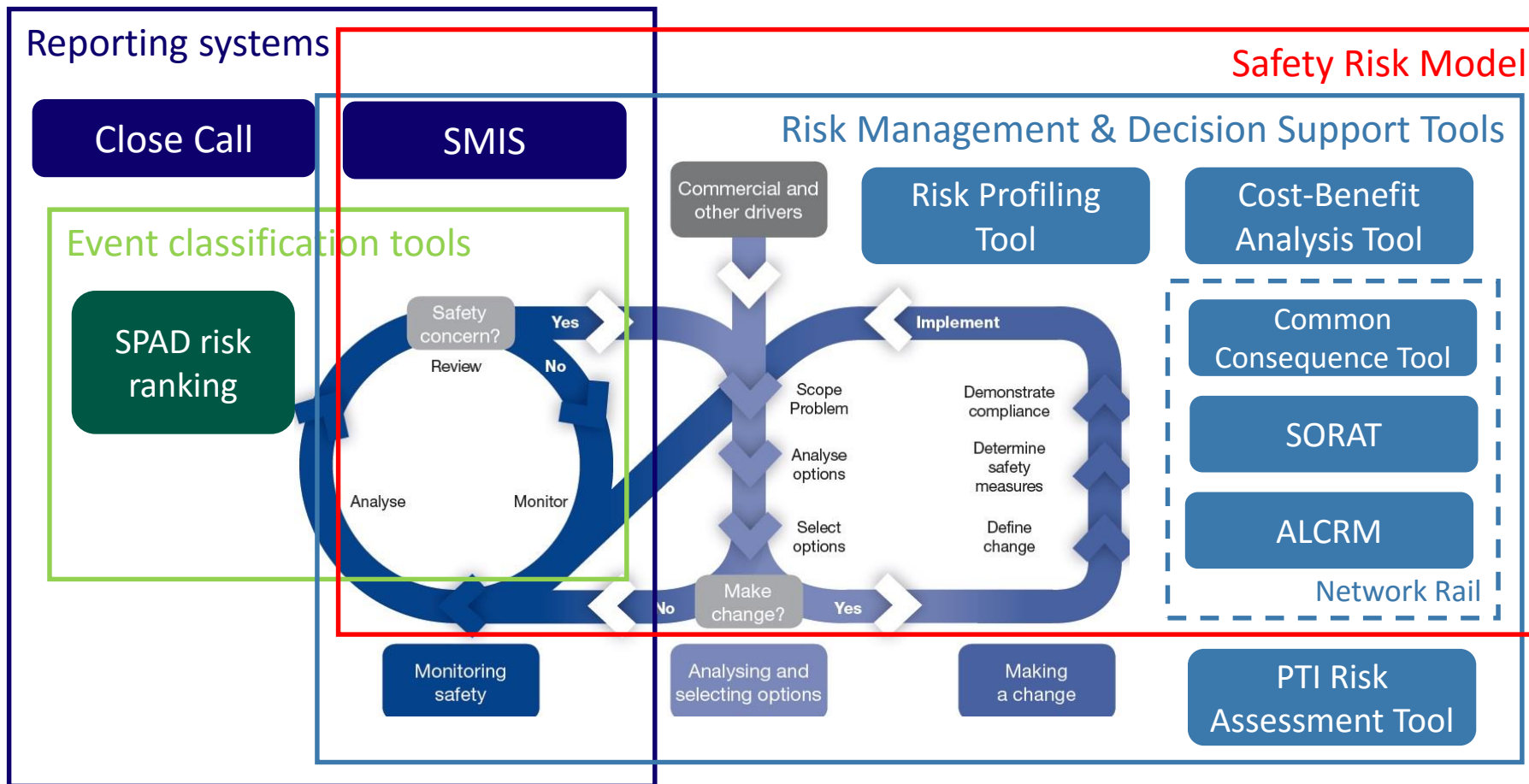


Safety
Assurance
Guidance



Duty of
Co-operation
Guidance

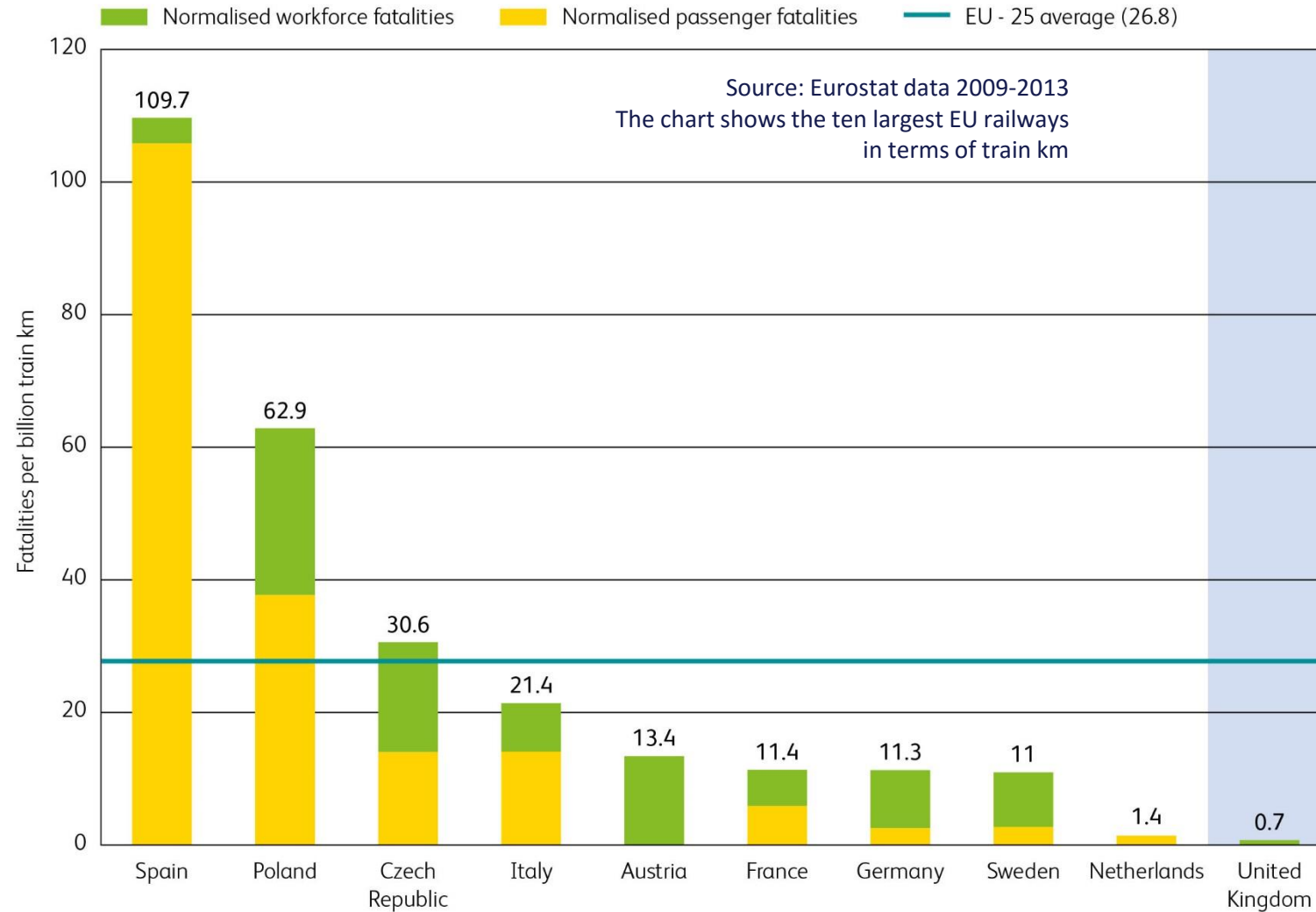
Current offering: systems and tools



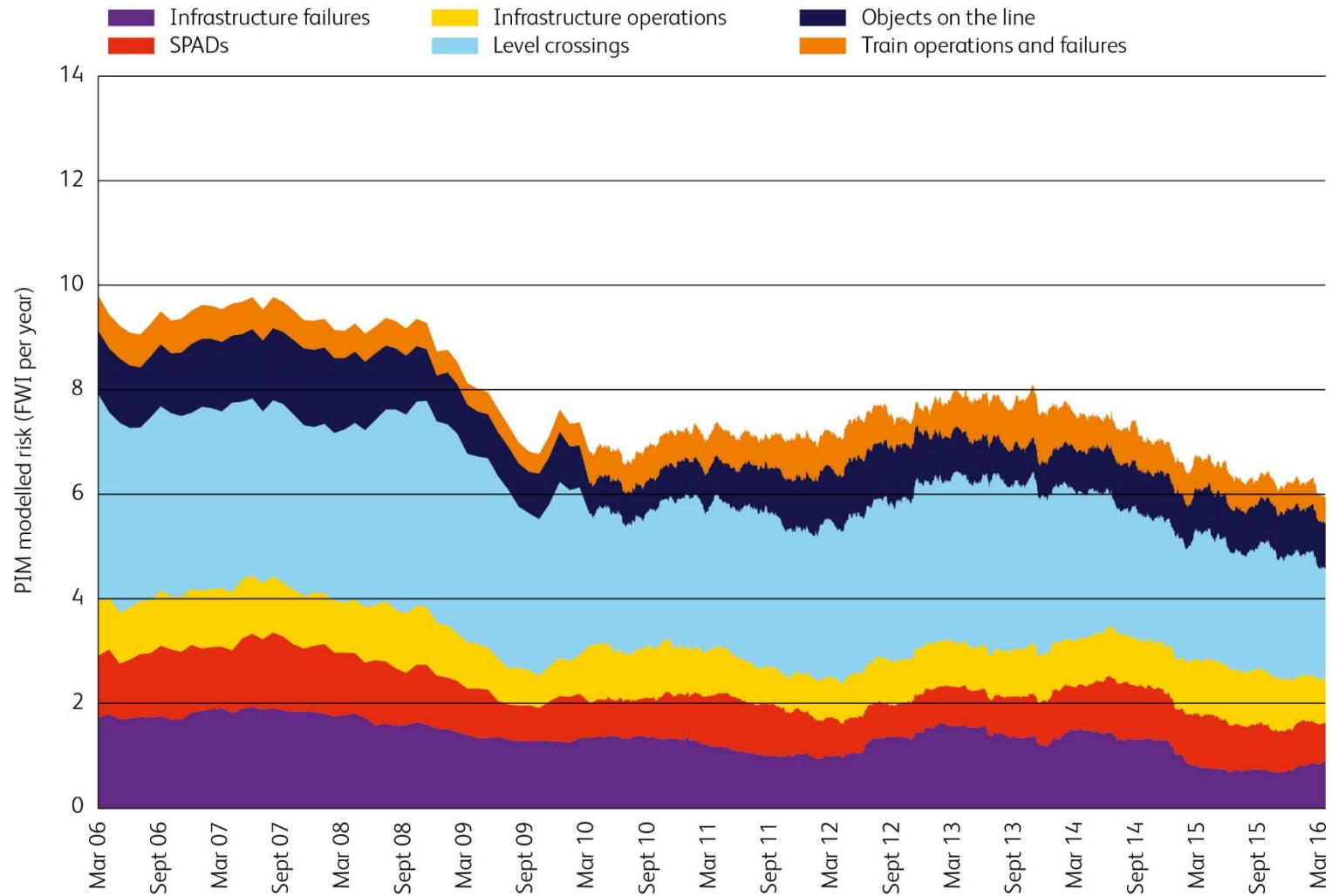
Train accidents with passenger and workforce fatalities



Passenger and workforce fatality rates on the largest EU railways



Train accident precursors

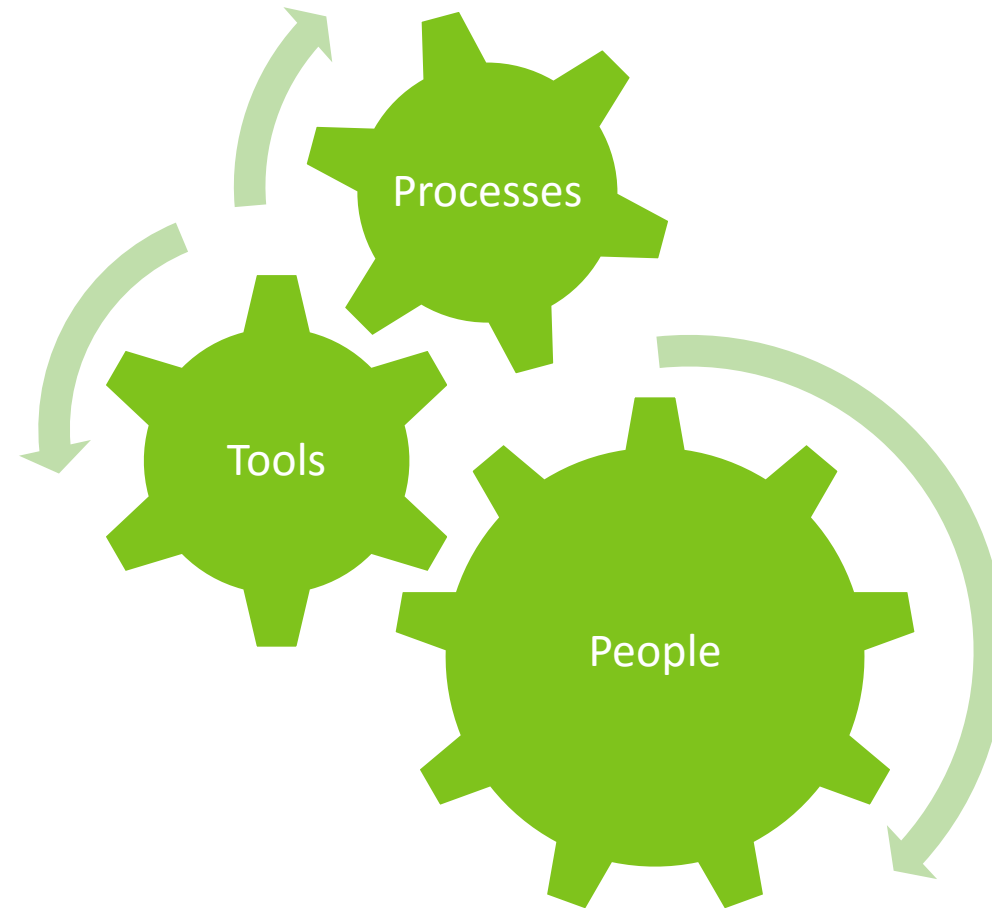


The Data and Risk Strategy

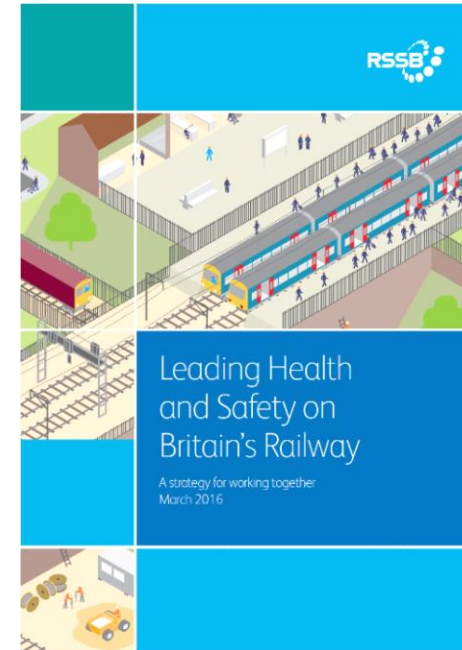
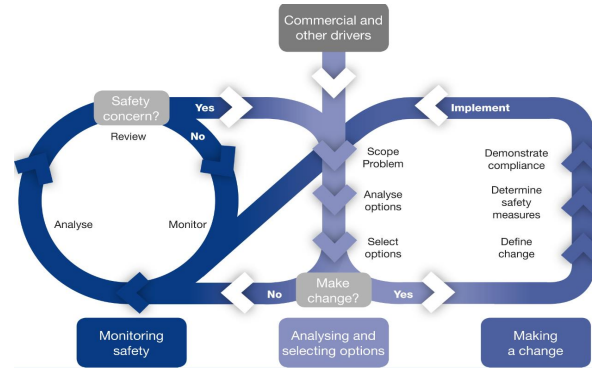
Data and Risk Strategy Group - vision

“the risk intelligence that a world class railway needs, efficiently provided to the right people in the right format and at the right time”

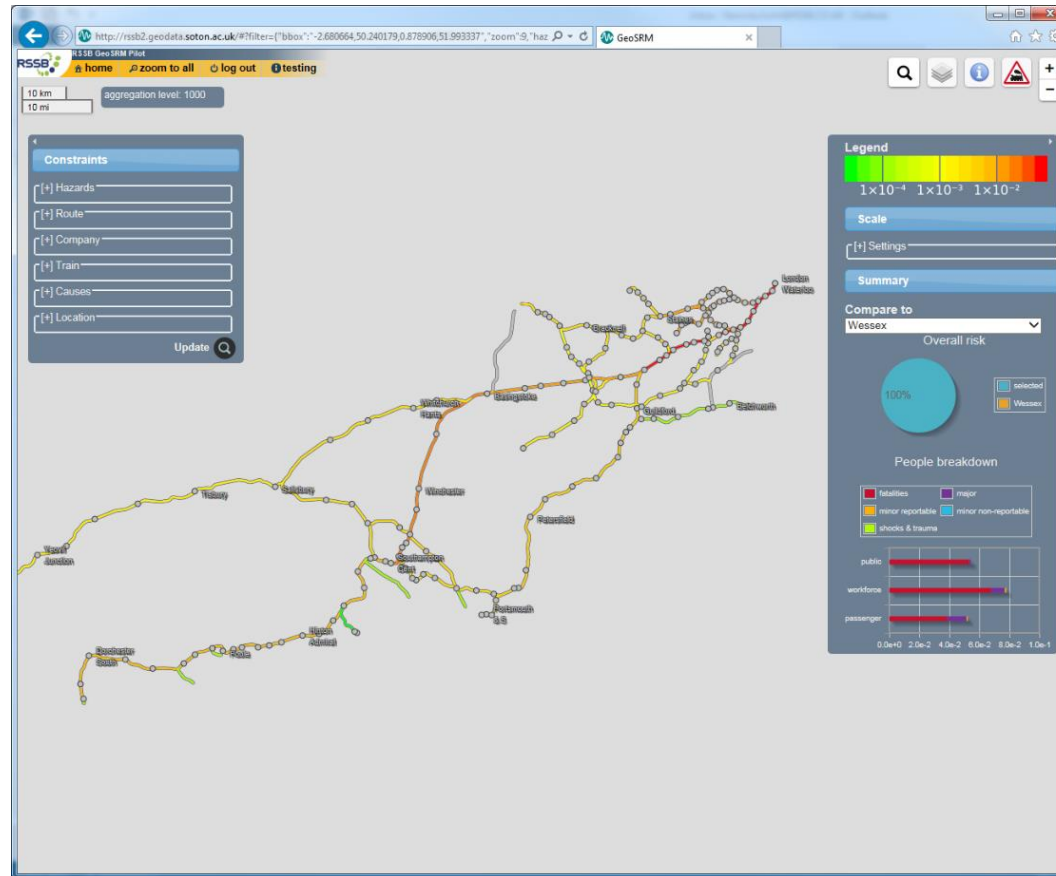
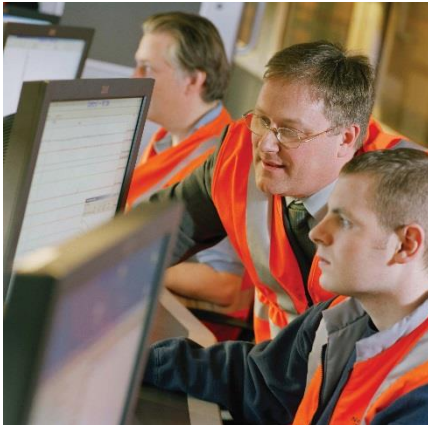
The pieces of the jigsaw



The pieces of the jigsaw

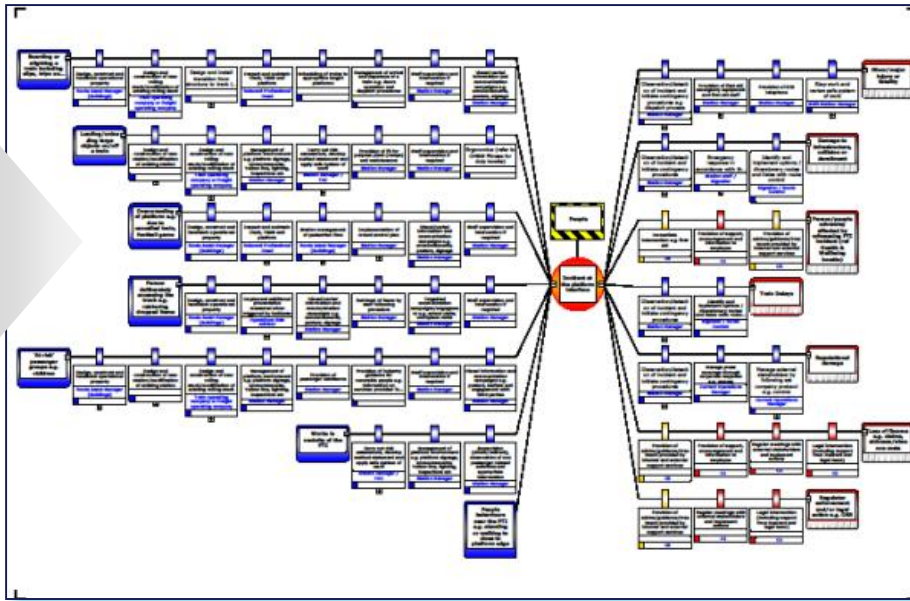
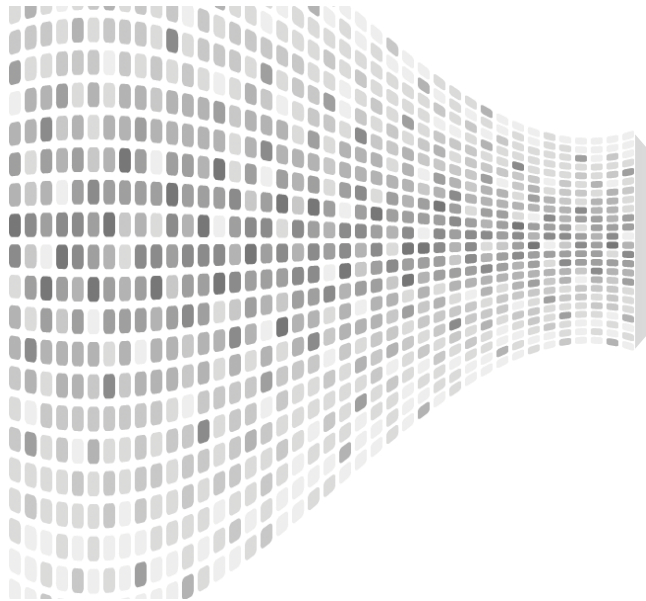


A safety enterprise architecture

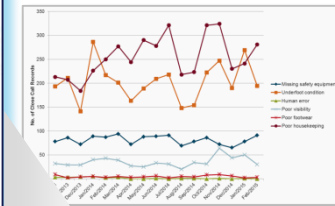


Managing the information

Multiple real-time input data



Real-time reports

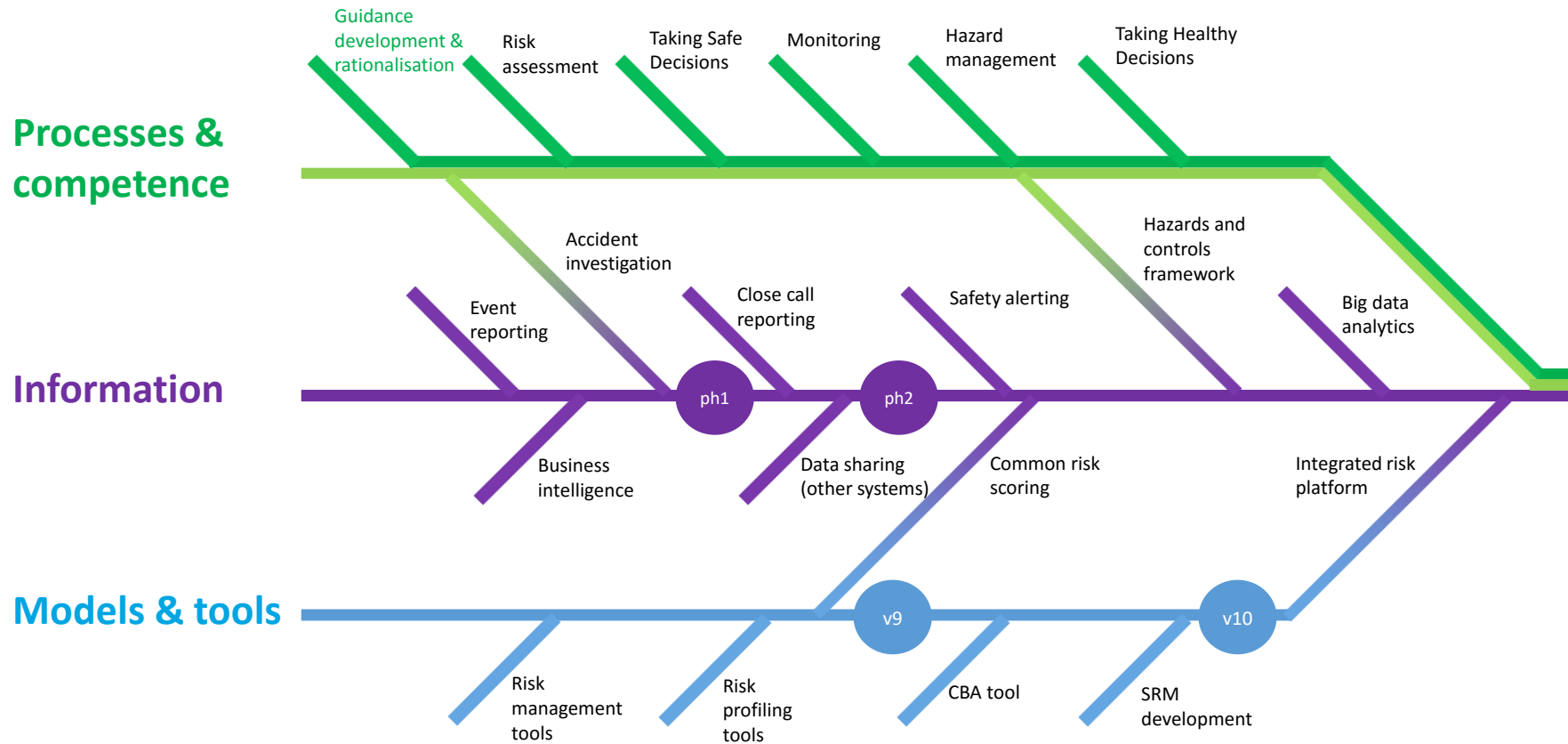


Trend reporting

Alerts



The road map



The SMIS+ programme

SMIS+ programme implementation

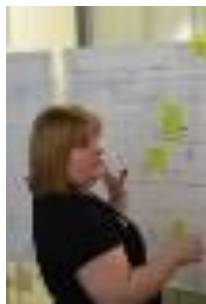
■ Phase 1 – 5 December 2016

- New user-friendly web based system
- New data event model that is risk based
- Investigation recording and recommendation tracking
- Business process workflow and KPI's to assist with the collection of safety data and investigation management
- New state-of-the-art business intelligence software

■ Phase 2 – April 2017 (TBC)

- Capture and record a safety event or risk via a mobile device
- Close call recording and management
- Links to Network Rail's asset systems
- Improved data quality processes
- Investigation management functionality following industry best practice

Industry working together

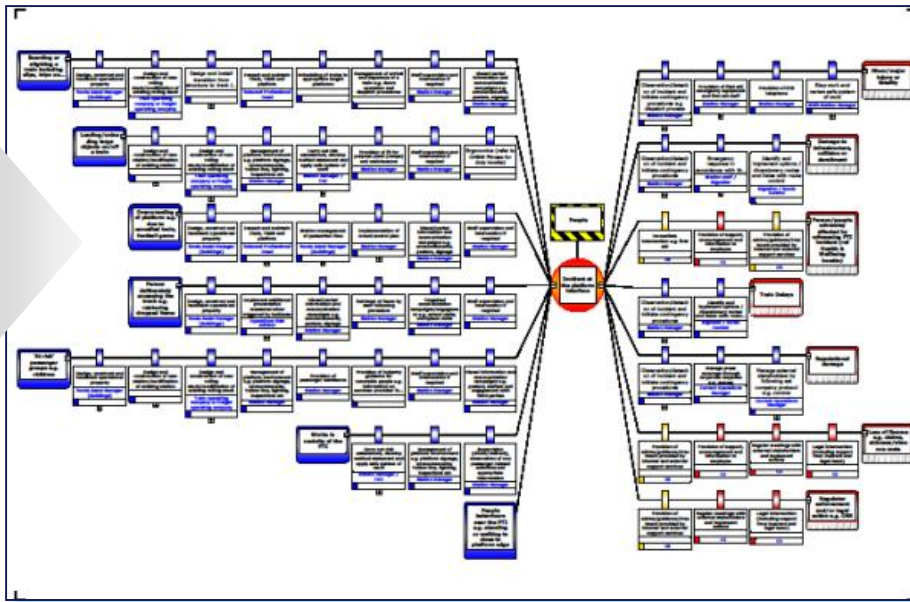
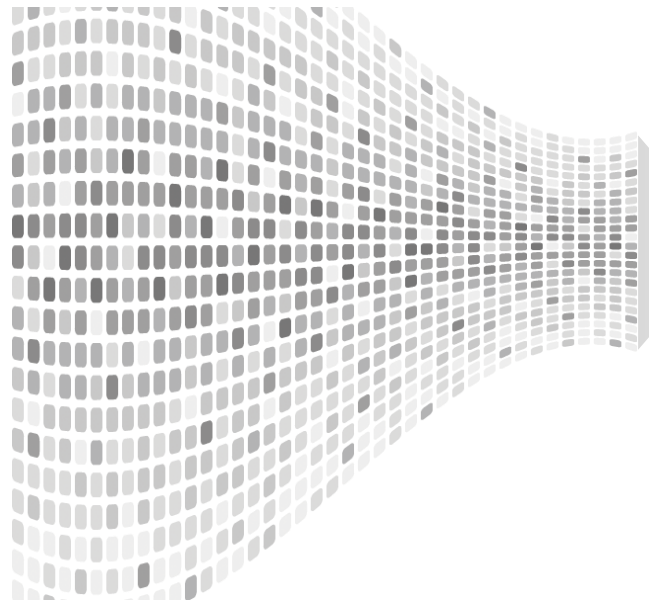




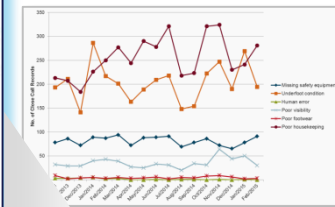
The challenges

Technological

Multiple real-time input data



Real-time reports

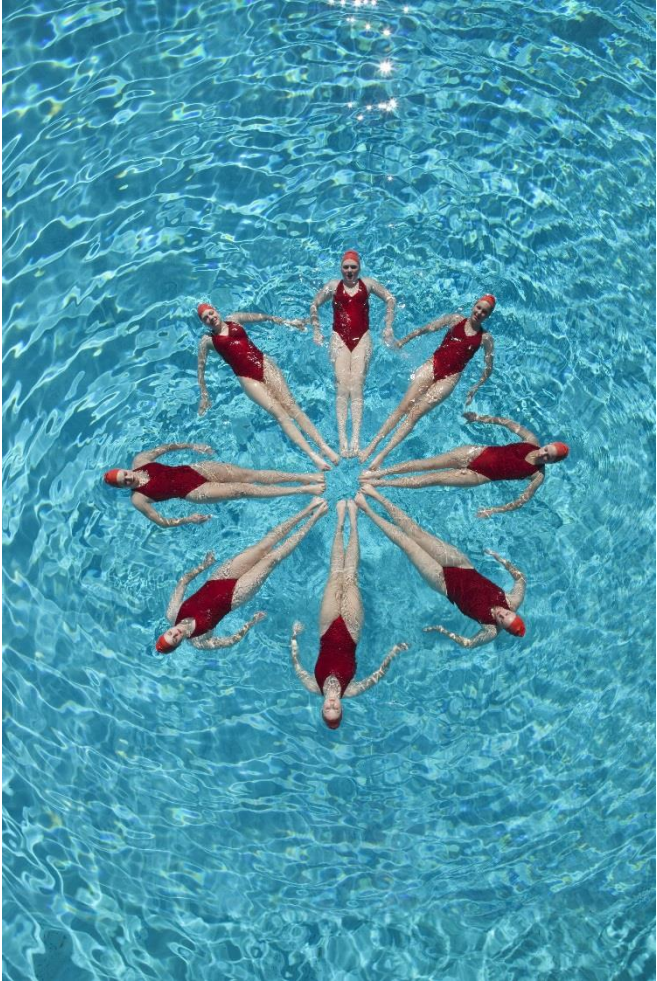


Trend reporting

Alerts



Organisational



Cultural

*Culture is the way
you think, act and
interact*

A move to proactive culture change

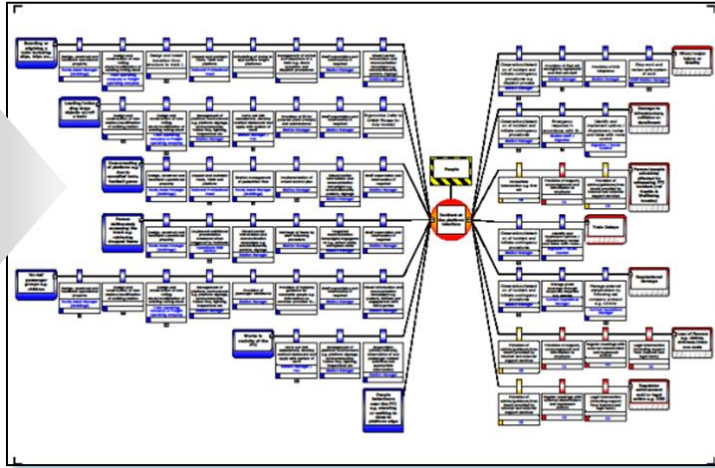
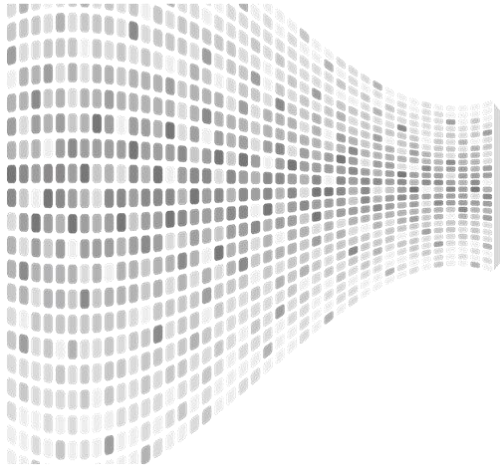
1988	Clapham Junction
1994	Privatisation
1999 2000	Ladbroke Grove Hatfield
2010	RSSB report into contractor underreporting
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RSSB: our role

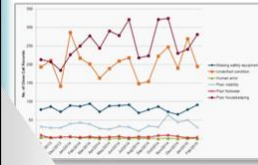
- Support members to achieve their objectives – particularly with regard to efficiency and safety
- Work across the whole rail system and facilitate cross industry collaboration
- Centre of independent, evidence based, technical excellence in the fields of system safety and standards
- Industry focal point for research and development at the system interface

The future

Multiple real-time input data



Real-time reports

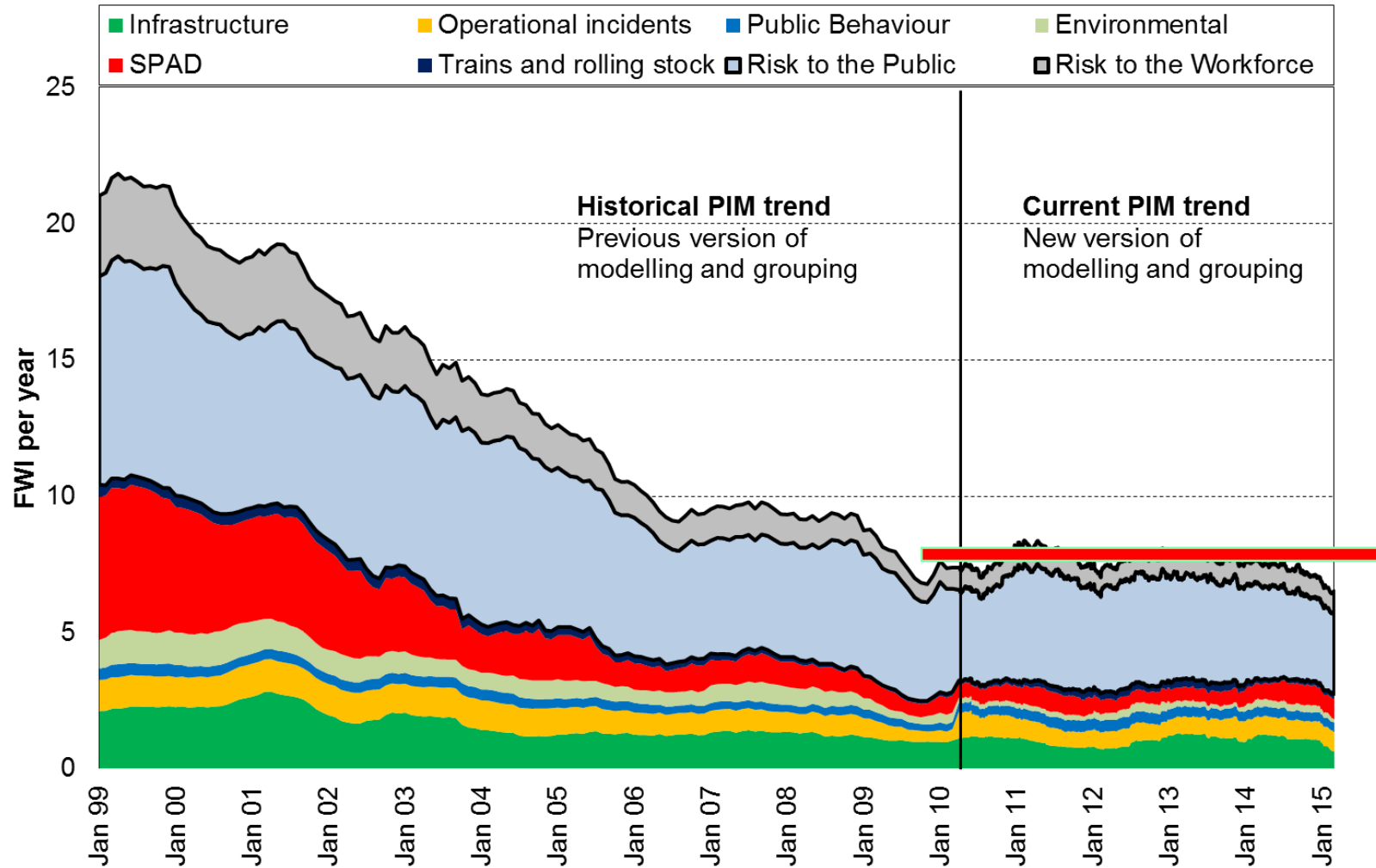


Trend reporting

Alerts



Another step change in safety performance



The image features a central horizontal band of bright blue color. Above and below this band are three vertical rectangular blocks of different colors: dark green, teal, and bright green. The text "Thank you" is centered within the blue band.

Thank you