



A Better,
Safer
Railway

Vampire User Day 16th July 2020

Mark Oakley
Professional Head of Rolling Stock



Our origins

Through research, standards and analysis we help our members deliver a better, safer railway.

- Formed in 2003 following Lord Cullen's inquiry into the 1999 Ladbroke Grove rail crash.
- Lord Cullen recommended that an independent evidence-based framework to support risk management across the UK rail network be set up.
- Since 2003 our work has significantly improved the industry's understanding and management of safety and supported Industry Standards.



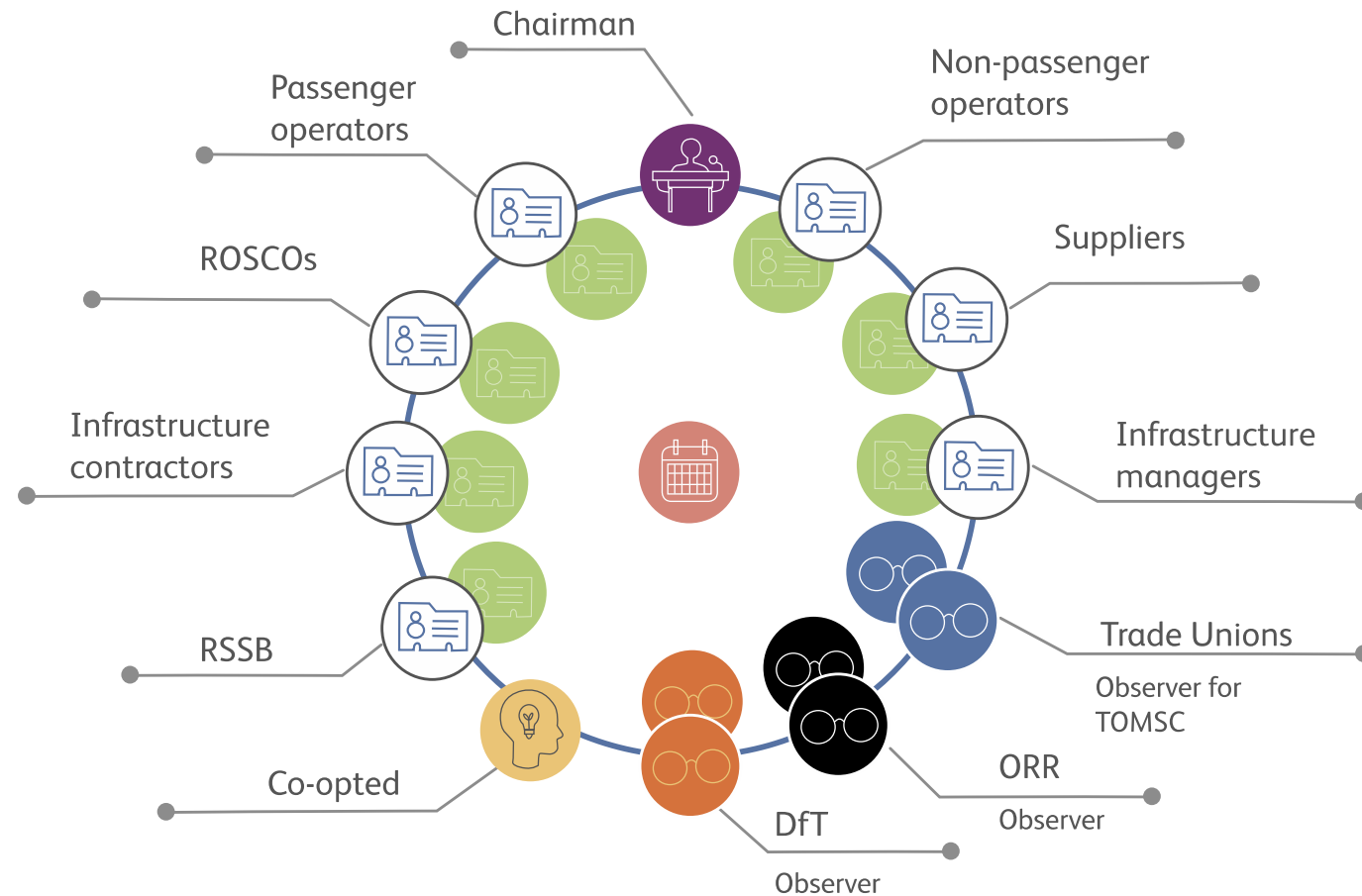
Governed by collaboration

Our committee makeup



Members

- Chairman
- Members
- Observers
- Co-opted
- Alternate members
- Meeting manager



Vehicle dynamics simulations is a cornerstone of several key GB Rail Standards and used to aid or demonstrate compliance, notably:

- a. RIS-2773-RST Format for Vehicle Gauging Data – Gauging swept envelopes
- b. GMRT2173 Size of Vehicles and Position of Equipment - Pantograph sway
- c. GMRT2141 Permissible Track Forces and Resistance to Derailment and Roll-Over of Railway Vehicle – Static and dynamic tests
 - i. Torsional stiffness – Delta Q/Q
 - ii. Bogie rotational resistance - X-Factor
 - iii. Flange climbing resistance - Y/Q
 - iv. Resistance to derailment – Ride and Stability assessment
 - v. Lateral & Vertical track forces
 - vi. Vehicle rollover in curves due to excess speed
- d. GMRT2142 - Resistance of Railway Vehicles to Roll-Over in Gales – to provide accurate modelling



Thank you

