



**Ruairí KENNEDY** MPhys MSaRS MCIRO

**EXPERT ADVISER, RAIL SYSTEMS**

[ruairikennedy@crossrail-international.co.uk](mailto:ruairikennedy@crossrail-international.co.uk)

## BIOGRAPHY

**Ruairí Kennedy** is an expert in the delivery of assured safe and integrated rail systems and bringing rail operations into use. He specializes in engineering safety management and operational safety risk management. His 22 years' experience has included passenger rail (commuter, regional, intercity and high-speed, mass rapid transit (metro), light rapid transit and tramway systems) and freight rail in the UK, Europe, the Middle East, Indonesia and Australia.

He is an experienced system safety workshop chair (e.g. HAZID/HAZOP) and is excellent at stakeholder management. He is an expert in the application of rail and safety legislation, including the Railways (Interoperability) Regulations 2011 (RIR), Railways and Other Guided Transport Systems (Safety Regulations) 2006 (ROGS), and Construction (Design and Management) Regulations 2015 (CDM).

Ruairí was recently a member of Crossrail International's expert advisory team which reviewed the technical delivery and operational readiness of the Jabodebek LRT and Jakarta Bandung High Speed Rail project.

In 2017, Ruairí established the safety strategy for the Energisation and Dynamic Testing phases for the Central Operating Section of the new Elizabeth Line in London. As part of Crossrail Ltd. he delivered all programme level risk assessments through Dynamic Testing, Trial Running, and Trial Operations. More recently, Ruairí authored Rail for London Infrastructure's (RfLI's) Change Assurance Framework for Revenue Service to include the Common Safety Method for Risk Evaluation and Assessment and he delivered RfLI's Technical System Review Panel (Secretariat, Chair) during Revenue Service.

Ruairí commenced his career as a risk analyst at the Rail Safety and Standards Board (RSSB), the independent safety, standards and research body for the UK rail industry, where he developed and maintained the UK Safety Risk Model, versions 3, 4 and 5. He then spent eight years based in Sydney, Australia, as a senior operational risk adviser for RailCorp, the Transport for New South Wales (TfNSW) agency that held rail property assets, rolling stock and rail infrastructure.

Ruairí holds a Master of Physics from the University of Warwick and a Postgraduate Certificate in Design, Manufacturing and Management from the University of Cambridge. He is a Member of the Safety and Reliability Society, and a Member of the Chartered Institution of Railway Operators. Ruairí holds Australian, British and Irish citizenship and speaks French (intermediate), Spanish (basic) and Japanese (basic).

## CAREER HIGHLIGHTS

As Independent Safety Consultant for **Crossrail (Elizabeth Line)**, one of Europe's most complex rail infrastructure programmes:

- Authored and led the delivery of the Safety Strategy for Energisation and Dynamic Testing.
  - Authored a suite of nine Safety Arguments on behalf of Crossrail as System Integrator for delivery of Energisation and subsequently Dynamic Testing for Single Train Testing (Zone specific) and then Multiple Train Testing in the Central Operating Section and across transitions to Network Rail infrastructure (Great Eastern and Western). These were based on 'final state' engineering safety management deliverables, gap analyses for relevant non 'final state' systems, and assessments of safe working arrangements from all of Crossrail's Systemwide (rail systems), and Stations, Shafts and Portals Contractors.
  - Defined and delivered Crossrail's Dynamic Testing Safety Review Panel (Secretariat, Chair).
  - Delivered all programme level risk assessments during Dynamic Testing as part of the Rail Systems Integration function for Stage 3.
  - Delivered Rolling Stock Infrastructure Compatibility Assessments compliant with RIS-8270 (*i.e.* Compatibility File, Summary of Compatibility) on behalf of Crossrail's Chief Engineer Group and affected parties: MTR Elizabeth Line and Alstom for the CL345 passenger rolling stock; GB Railfreight and Rail for London for the Robel and Linsinger Engineering Trains.
  - Author of Technical Safety Justifications for Robel and Linsinger Yellow Plant operation under Communications-Based Train Control (CBTC) signalling protection (Running Mode). Unconditional acceptance received from the independent Assessment Body for both the Robel and the Linsinger.
  - Author of Rolling Stock Signalling Integration Safety Justification for CL345 Passenger rolling stock with integrated ETCS-CBTC-AWS/TPWS signalling systems and both Engineering Trains with CBTC and TPWS/AWS.
  - Delivered RFLI's Rail Systems Interim Technical Assurance Panel during Trial Running and Trial Operations (Secretariat, Chair). The purpose of ITAP was to assess and certify that changes to RFLI's Managed Infrastructure are adequately and appropriately safe, operable, maintainable and reliable.
- Safety Consultant to metro and tram operators and maintainers: **SERCO Dubai Metro**, Independent Review of Safety Management System; **Keolis** and **RATP Dev**, Lead Expert for Rail Safety Assurance, Health & Safety Management, Risk Management and Change Control workstreams on bids for Riyadh Metro, Doha Metro and Lusail Tram (**RKH Qitarat**).

Senior Operational Risk Advisor for **Transport for NSW's RailCorp**, based in Sydney, Australia. Managed the successful delivery of risk professional services to four of nine Engineering divisions. Custodian of the Safety Risk Register, central to RailCorp's accreditation, *Rail Safety Act (2008)*. Delivered cost benefit analysis from which reasonably practicable improvements to Worksite Protection with safety benefit of AUD9.5m over 20 years were accepted by RailCorp. Led a review of the safety functionality of RailCorp's Advanced Train Running Information Control System. Led multi-disciplinary HAZID workshops to agree hazards and causes. Maintained and developed the Safety Risk Register.

- Risk Analyst, Senior Risk Analyst and Senior Risk Advisor at the **Rail Safety & Standards Board**; worked as part of the risk team responsible for the development and maintenance of the UK Safety Risk Model versions 3, 4 and 5.