



Senior Systems Assurance Engineer

Position Description – (Auckland)

Team:	Auckland Metro and CRL	Location:	Auckland
Reports to:	Systems Assurance Manager		
Role Type:	Fixed Term		

About Us

KiwiRail’s Role in Aotearoa, New Zealand

KiwiRail, a proud State-Owned Enterprise, delivers sustainable and inclusive growth for our customers, communities, and people.

For more than 150 years, rail in New Zealand has connected communities, delivered freight and passengers around the country, and showcased our spectacular scenery to the world. Our purpose—Hononga Whaikaha, Oranga mo Aotearoa (Stronger Connections, Better New Zealand)—speaks to connection with our customers and the future needs of their businesses, connection with the communities we serve and operate in, and connection with each other. KiwiRail is carrying this legacy into the future, delivering connected rail and shipping transport services that create economic, social, and environmental value for New Zealand and New Zealanders.

Our Workplace

At KiwiRail, our values define the behaviour we expect from everyone. We have a team of over 4500 people, and every connection we make with each other, our union partners, our customers and all our stakeholders must be of the highest standard.



Safety, health, and well-being are our number one priority, ensuring our people return home safe and healthy every day.

About the Role

Purpose of the role

KiwiRail is committed to the safe and effective management and delivery of programmes of work through the Capital Projects and Asset Development (CPAD) team. The Auckland Metro Programme (AMP) team is responsible for the delivery of a wide programme of network capital activities under the Auckland Rail Development Programme and is also responsible for supporting the successful delivery of the City Rail Link (CRL) project.

The Senior Systems Assurance Engineer is responsible for supporting the development, implementation, and continuous improvement of KiwiRail's systems assurance framework and methodologies. This role contributes to the integration of systems assurance processes across capital projects, ensuring compliance with EN50126 standards and KiwiRail's Railway Safety Case requirements. The role provides technical expertise, facilitates risk assessments, and engages with internal and external stakeholders to ensure robust safety and assurance processes are embedded across KiwiRail's infrastructure projects. The Senior Systems Assurance Engineer will also provide support to the wider business as required including the KiwiRail Regulatory team in relation to Safety Case variations and related matters.

The Senior Systems Assurance Engineer will work closely with project teams, regulatory bodies, and other stakeholders to ensure the successful implementation of systems assurance practices within KiwiRail's capital projects and operational environments.

Key Accountabilities

Within the area of responsibility, this role is required to:

- Support the development and integration of an improved systems assurance framework that supports KiwiRail's commitment to safe and effective railway operations.
- Support the implementation of systems safety assurance methodologies that ensure compliance with EN50126 standards and regulatory requirements.
- Conduct risk assessments and hazard analyses to identify and mitigate safety risks in capital projects.
- Review and assess systems assurance deliverables from internal and external project teams to ensure compliance with KiwiRail standards.

Key challenges

- Ensuring that systems assurance principles are consistently applied across multiple capital projects with differing requirements.
- Managing and analysing complex technical and regulatory issues related to railway systems safety.
- Facilitating cross-functional collaboration between engineering, operations, and project management teams to align safety assurance practices.
- Balancing the need for thorough risk assessments and assurance processes with project timelines and resource constraints.

Key Relationships		Manage /Lead	Deliver to	Collaborate with	Advise or inform
Here are the key relationships relevant to this role					
Internal	Auckland Metro and CRL Programme teams		✓	✓	
	CPAD		✓	✓	
	Safety, Health and Wellbeing		✓	✓	

	Network Services Operations and Engineering		✓	✓	
	Corporate Groups		✓	✓	
External	CRL Project		✓	✓	
	Council Client Groups (Auckland Transport and Council)		✓	✓	
	New Zealand Transport Agency (Waka Kotahi)		✓	✓	
	Capital Project Contractors, Suppliers and Consultants			✓	



What you will do to contribute

Health Safety and Wellbeing

- Implement safety procedures
- Analyse workplace risks and develop mitigation strategies
- Promote a culture of safety and wellbeing
- Respond effectively to safety incidents and near-misses
- Support team members' physical and mental health

Systems Assurance Implementation in Capital Projects and Operations

- Support the development and implementation of systems assurance frameworks and methodologies in compliance with EN50126 standards.
- Provide technical expertise in system safety and assurance across capital projects.
- Contribute to the specification of systems assurance requirements for KiwiRail-delivered projects.
- Review and assess systems assurance deliverables from project teams and external parties.
- Support the accuracy, currency, and comprehensiveness of project safety assurance documentation to provide assurance for capital projects.
- Support the alignment of safety and assurance processes with KiwiRail's Safety, Health and Wellbeing objectives.
- Support the implementation of systems assurance principles in design, construction, and commissioning of assets delivered by capital projects.
- Work collaboratively with internal teams, project managers, engineers, and operational staff to ensure a consistent approach to systems assurance and to facilitate the seamless integration of safety assurance requirements.

Systems Assurance Demonstration

- Conduct safety assessments and hazard analyses to support the delivered assets being fit for purpose and safe to use, operate and maintain.
- Work with project teams to identify, evaluate, and mitigate system safety risks.
- Ensure robust safety justifications and risk assessments exist for capital projects.
- Contribute to the development of safety cases and assurance documentation to support regulatory approvals.
- Engage with external stakeholders, including regulatory bodies, industry groups, and consultants, to support project approvals.
- Support the handover and closeout of projects by ensuring all necessary assurance deliverables are completed.

Customer Focus

- Provide a positive customer experience
 - Support a customer-focused culture at KiwiRail
 - Know our services well and explain them to customers
 - Respond quickly to customer needs
 - Develop solutions to meet customer requirements
 - Solve complex customer issues
 - Work with colleagues to improve customer outcomes
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**High Performing
Teams Skills**

- Provide timely and constructive feedback
- Actively seek diverse perspectives in problem-solving
- Identify opportunities for coaching and mentoring

Commercial Acumen

- Consider financial implications when making recommendations
 - Understand and comply with procurement guidelines
 - Work with suppliers to ensure quality outcomes
 - Recognise how financial decisions impact KiwiRail's overall position
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Decision Making

The position is accountable for decisions regarding systems assurance processes and methodologies within KiwiRail's capital projects. The role provides expert advice to project teams and stakeholders on assurance decisions.

Key decision-making requirements of the position include:

- Systems assurance methodology and framework implementation decisions.
- Risk management and mitigation strategies for capital projects.
- Evaluation and approval of safety cases and assurance deliverables.
- Stakeholder engagement and consultation to ensure alignment with regulatory requirements.
- Prioritization of assurance tasks to meet project deadlines and compliance obligations.

Human Resources Delegations	Nil
Direct reports	Nil
Finance Delegations	Nil
Budget (operating and capital)	Nil
Travel Delegations	Nil
Statutory powers	Nil

Physical demands and the nature of work

This role is administration-based and requires:

- prolonged sitting and high computer usage
- limited walking, standing, twisting, bending (at the waist), crouching (bend knee)
- carrying of laptop and paperwork when alternating between home and office
- limited lifting of up to 7 kg archive boxes

Your role may include other tasks suited to your level, as your manager directs. This job description shows your current duties. We'll review and update it with you if your responsibilities change.

About you

Knowledge and experience

- You have 8+ years of experience in systems safety and assurance, ideally within the rail, transport or similar sector.
- You have strong working knowledge of EN50126 (RAMS) or similar standards, safety case management, and functional safety risk assessment methodologies.
- You have a sound practical understanding of the 'so far as is reasonably practicable' obligations in the Health and Safety at Work Act (2015) and the Railways Act (2005), including experience undertaking risk assessments to demonstrate organisational achievement of such obligations.
- You have experience working with regulatory bodies and functional safety assurance frameworks.
- You are familiar with railway systems, operations, and infrastructure projects.

Ways of working / Work-related qualities

- You have excellent interpersonal skills with the ability to foster good stakeholder relationships through consultation and partnership
- You have excellent written and oral communication skills, particularly the ability to communicate clearly, concisely and in plain language
- You are self-motivated and driven
- You are capable of working autonomously

Other Requirements

- You can pass regular drug and alcohol screenings
- You have a current and valid NZ Driver's Licence

Qualifications

- You have a Bachelor's degree in Engineering, Systems Engineering, Systems Safety, or a related discipline
- You hold relevant industry certifications

**CREATING
STRONGER
CONNECTIONS**

The KiwiRail logo, featuring the text "KiwiRail" in a bold, sans-serif font, followed by a stylized graphic of a kiwi bird's tail feathers.