



Performance Insights and Modelling Specialist

Position Description

Team:	Asset Management Group	Location:	Christchurch
Reports to:	Asset Management Maturity & Improvement Manager		
Role Type:	Permanent		

About Us

KiwiRail's Role in Aotearoa, New Zealand

We move freight and people by rail and sea, and we are stewards of New Zealand's rail network. As such, we deliver sustainable and inclusive growth for our customers, our communities and our people.

For over 150 years, our rail and ferry network has connected New Zealand communities, delivered goods and people around the country, and showcased our spectacular scenery to the world. Our purpose 'Stronger Connections, Better New Zealand,' speaks to connected people, networks, journeys, experiences, and ways of working that move our customers, their goods, the transport system, KiwiRail and New Zealand forward.

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

This position sits within the Asset Management Group, which provides enterprise asset management services to KiwiRail's executive and business groups (e.g. Infrastructure, Freight Operations, Interislander).

As a Performance Insights and Modelling Specialist, you are responsible for leading asset data analytics and asset modelling encompassing all of KiwiRail's businesses. You will work closely with the business groups to provide relevant information and insights and making appropriate recommendations to ensure key asset management decisions are made with the full knowledge of asset performance trends and significant issues affecting KiwiRail's portfolio of assets.

Leading the analytics, you will provide subject matter expertise to give insights into asset behaviour, root causes, issues and risks, recommending proposals for business improvements together with driving process changes which will benefit and influence KiwiRail's asset management maturity and associated improvement programmes.

You will also play a major role to identify innovative techniques, tools, and applications to improve the efficiency and effectiveness of asset data analysis and modelling, leading the implementation of best practice asset management initiatives within the organisation.

Key Accountabilities

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

- Proactively identify network and asset performance issues, and lead work with input from subject matter experts to identify risks, undertake root cause analysis, and recommend corrective actions and improvement initiatives
- Lead the development of asset investment models (including asset health, criticality and risk models, and customer service performance models), to inform KiwiRail's capital and operational expenditure investment decision making, in cooperation with relevant subject matter experts
- Lead the forecasting and review of the likely impact of alternative investment scenarios on asset health, asset performance and customer service outcomes over the medium to long term
- Lead the development of reliability block diagram models and undertake reliability, availability and maintainability (RAM) studies to identify areas of improvements to meet required customer service outcomes
- Promote opportunities to introduce innovative asset management modelling solutions and manage the implementation of best practice asset management initiatives
- Report, monitor, and review asset management achievements of business groups and recommend improvements
- Manage and deliver specialist asset performance benchmarking

Key Challenges

- Promoting an engaged asset management culture throughout KiwiRail
- Influencing business groups to co-develop and use asset health, criticality and risk models to develop and implement asset investment and maintenance strategies to improve safety, environmental, asset reliability and customer service outcomes.

Key Relationships Here are the key relationships relevant to this role		Manage /Lead	Deliver to	Collaborate with	Advise or inform
Internal	Asset Management Strategy & Assurance team		✓	✓	
	Asset Management Group		✓	✓	✓
	Business Groups (Infrastructure, Freight Operations, Rolling Stock, Interislander, Property), specifically their asset information teams, Engineering, Digital Engineering disciplines		✓	✓	✓
	Capital Projects and Asset Development			✓	✓
	Government Relations, Policy & Funding		✓	✓	✓
	Customer & Growth (Market strategies and Pricing, Demand planning)		✓	✓	✓
	Finance (including ICT)		✓	✓	
External	Auckland Transport		✓		✓
	Metro Rail Operators		✓		✓

What you will do to contribute

Health Safety and Wellbeing

- Keep yourself and others safe and well and promote a culture of safety and wellbeing
- Ensure compliance with safety standards, procedures, and statutory requirements
- Analyse workplace risks and develop mitigation strategies
- Respond effectively to safety or environmental incidents and near-misses
- Support people's physical and mental health

Customer, Stakeholder and Subject Matter Expert Focus

- Support a customer, innovation, and growth focused culture at KiwiRail
- Work with customers, stakeholders, and subject matter experts to integrate their requirements into asset management models
- Support collaboration and proactive improvement of asset management capabilities as normal practice
- Have productive relationships with customers, stakeholders, and subject matter experts
- Support an enterprise-wide asset management capability and maturity

Asset Analytics

- Lead in-depth analysis of data from KiwiRail's asset information, financial and operational systems (e.g. Maximo, SAP, ArcGIS) to understand asset performance trends (Levels of service, KPIs etc.), asset condition trends, faults distribution trends, Work Order activities, and expenditure distribution, and make recommendations for improvement
- Lead root cause analysis on recurring or widespread issues affecting the network and asset performance, and recommend improvements

- With input from subject matter experts, develop Route Strategies aligned with organisational strategies
- Ensure feedback from key stakeholders is sought and addressed to continuously improve the confidence in asset information analysis process and reports

Asset Modelling

- Lead the development of asset investment models and predictive asset health models together with relevant subject matter experts
- Lead the forecasting and review of the likely impact that alternative investment scenarios will have on asset health indices and asset performance over the medium to long term
- Lead the development of route criticality models for the rail network with input from relevant subject matter experts
- Lead the development of reliability block diagram models with input from relevant subject matter experts
- In collaboration with internal teams, identify opportunities to introduce innovative asset management modelling solutions
- Refine and maintain Whole of Life cost models for the assets and ensure outcomes are utilised in long-term investment plans

Asset Improvement Initiatives

- Contribute to plans and programmes for Infrastructure and Services businesses related to asset management improvements
- Promote and support the implementation of best practice Asset Management initiatives
- Monitor and review the asset management achievements of business groups against relevant objectives, strategies, and targets

Asset Health & Critical Frameworks

- Develop asset health frameworks and monitor trends
- Lead the development and improvement of asset health models
- Lead the development and improvement of route and asset criticality models
- Lead the development and improvement of asset risk models

Asset Management Culture

- Create and enhance an engaged asset management culture throughout KiwiRail through guidance and sharing of asset management expertise
- Promote and support the implementation of best practice Asset Management initiatives
- Participate and contribute to weekly planning, operations and other meetings as required.

Decision Making

The position is accountable for decisions regarding their operational objectives and for the provision of high-quality asset analytics, modelling and expertise to respective business groups.

Key decision-making requirements of the position include:

- Asset analytics decisions and recommendations for further improvement of processes
- Asset modelling decisions and recommendations for further improvement of modelling outputs



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

- At least 5-10 years of prior demonstrated experience in data analytics
- Analytical skills and ability to perform complex analysis with data from multiple sources
- Demonstrated experience in asset data analytics, modelling, and reporting, ideally associated with a large asset portfolio or a significant business entity
- Knowledge of, or experience in performing, Reliability Engineering analysis (e.g. Reliability Centred Maintenance (RCM); Failure Modes, Effects, and Criticality Analysis (FMECA), Reliability Block Diagram (RBD) development and modelling
- Demonstrated knowledge and experience in the application of Python and Power BI or similar software tools
- Sound knowledge and extensive working experience with the Microsoft suite (Outlook, Word, Excel, PowerPoint, Visio) and similar products

Ways of working / Work-related qualities

- You build rapport and relationships across multiple stakeholders
- You influence and motivate others through personal advocacy, vision and drive to build a solid platform for change
- You work with a high level of autonomy and are highly self-motivated and driven
- You're flexible and practical

Other Requirements

- You have project management experience
- You know and have used financial and asset management systems for work

Qualifications

- Relevant Tertiary qualification in Mathematics, Statistics, Commerce, Engineering, Asset Management or equivalent
- You hold relevant industry certifications.

**CREATING
STRONGER
CONNECTIONS**