

TMR Data and Business Analytics Strategy

2017 – 2022

Our Customers

Data and business analytics are vital for delivering a customer-centric approach to service delivery for stakeholders within and outside the department.

This Strategy will:

- Empower our customers, both internally and externally
- Build capabilities to tell stories that matter – and inform our decisions – using data and business analytics
- Continue to deliver excellence in TMR’s open data practices.

Contemporary workforce

Maximising the value we get from data and business analytics can only happen when we have a purple workforce that includes the right mix of business (blue) and technical (red) capabilities to deliver actionable insights, and shape how decisions are made.

This Strategy will:

- Make it easy to discover data across the department and find the right people to talk to
- Empower our workforce to use data and business analytics
- Provide access to the tools and training that will enable capability uplift within our workforce.

Sustainable funding

Better managing our data allows us to build capabilities in predicting future trends or testing the impact of different decisions we make each day to deliver our vision for Queensland’s transport network.

This Strategy will:

- Increase our ability to understand the impact of decisions through ‘what-if’ scenarios and predictive modelling
- Streamline performance management and reporting that helps measure our progress
- Allow exception-based reporting and visualisations that provide a snapshot of what’s happening in real-time.

Building prosperity

To keep pace with the growing rate of change, TMR needs to have greater agility in its data and business analytics capabilities.

This Strategy will:

- Help to establish a level of trust in TMR’s data that is appropriate to its use and value in supporting our vision
- Increase the flexibility of our data through using business analytics to provide context and help us make more informed decisions
- Ensure access to relevant business analytics that suit both the decision and data being used
- Make more data available to customers and businesses to inform decisions that help grow Queensland’s economy.

Innovation

With the rise in big data analytics, the Internet of Things, real-time data and autonomous vehicles, TMR must take an innovative approach to generating value from data and business analytics.

This Strategy will:

- Improve TMR’s ability to manage our data, regardless of its scale (from big data to transactional information and everything in between)
- Enhance TMR’s agility to explore data through business analytics
- Bring our data together to answer priority crunchy questions.




Liveable regions and active cities

Increasing community expectations for seamless digital government – across departments and jurisdictions – make it important for TMR to share data and insights, while protecting the information that needs protection.

This Strategy will:

- Ensure TMR continues to protect the data that needs to be handled carefully, especially sensitive information that can personally identify individuals
- Share the data that can be shared with the widest audience possible to deliver maximum customer and economic benefit
- Break down silos through data integration and business analytics to deliver insights that improve whole-of-TMR outcomes
- Enable customers and TMR to make more informed decisions about travel choices in their everyday lives
- Leverage data and analytics to optimise our existing assets for customer benefit.

The following three questions have been established as priority data and business analytics use cases to demonstrate value and drive capability uplift:

-  Managing Queensland’s multi-modal transport network in real-time to deliver customer and economic benefit
-  Making investment decisions that maximise customer and network performance outcomes within a constrained funding environment
-  Ensuring we can deliver on our commitments to Queenslanders by developing an agile way of deploying our workforce



TMR Data and Business Analytics Strategy

The Department of Transport and Main Roads (TMR) Data and Business Analytics Strategy (the Strategy) sets a vision and imperative for transforming the way decisions are made across the department by building capability to place data and business analytics at their centre. The Strategy has been shaped in consultation with stakeholders from across the department and provides a strong foundation to build on TMR’s existing capabilities. This includes the TMR ICT Strategic Plan, TMR Digital Strategic Plan and TMR Open Data Strategy, which are critical enablers of data driven decision making.

TMR will establish a Business Analytics Program to support the Strategy's vision for more informed decision making through the use of data and business analytics. The Program will focus on delivering timely insights to TMR decision makers through taking a ‘test and learn’ approach to solving a set of prioritised data and business analytics use cases. These priority use cases support TMR’s vision and will bring together different areas of the department to achieve common outcomes focused firmly on the future. In addition to the prioritised use cases, the Program will also incorporate and recognise any work already being done across TMR to maximise learnings and enable improved outcomes for business-as-usual activities.

The Strategy also outlines a number of strategic capability uplift activities that will support TMR’s delivery of the prioritised use cases, including establishing a Data and Business Analytics Program that focuses on streamlining processes from idea to insight, creating a catalogue of accessible data, enabling fit-for-purpose technology and organising for success. It will be reviewed and updated annually to monitor implementation progress and ensure the Strategy continues to reflect the disruptive and emerging technologies that shape TMR’s operating environment.

The Strategy is supported by a **TMR Data and Business Analytics Roadmap** (the Roadmap), which outlines a series of initiatives aligned to a vision for more informed decision making.

Ensuring we can deliver on our commitments to Queenslanders by developing an agile way of deploying our workforce

- How can we optimise our School Crossing Supervisor working locations to reduce slips, trips and falls by 60%?
- How should maritime officers target their safety patrols to reduce fatalities?
- Where are the top 10 heavy vehicle strategic interception sites across Queensland and what hours of effort from how many staff are required at each to achieve optimal results?

Making investment decisions that maximise customer and network performance outcomes within a constrained funding environment

- What is the level of investment in road maintenance that would reduce the number of road incidents by 10% on high-risk corridors?
- How do we prolong the pavement life of our road assets to defer replacement costs by up to five years, particularly for strategic heavy vehicle routes in rural areas?
- How can we conduct repeatable analysis on maintenance expenditure – e.g. if we spend \$X on road maintenance between A and B, what value and operational benefits could we achieve?

Managing Queensland’s multi-modal transport network in real-time to deliver customer and economic benefit

- How can we monitor the integrated transport system in real-time to minimise disruption and optimise efficiency?
- What is our baseline network performance (reliability, safety, cancellations, patronage) and how can variations from this be identified and effectively managed to benefit our customers?
- How can we track and report on transport system performance in real-time against baseline ‘normal’ conditions?

Demonstrate value
Priority use cases to demonstrate value and learn

