

# Asset Management Data Standard Information for Suppliers

Information for Suppliers

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# About the Asset Management Data Standard

The development of the Asset Management Data Standard (AMDS) is a collaborative effort between Waka Kotahi NZ Transport Agency and the transport sector to improve the management of land transport infrastructure asset information that supports best decisions about New Zealand's land transport assets.

The AMDS is a national, shared data standard for land transport infrastructure assets. It is a common language that defines and describes land transport assets, their attributes, characteristics, properties, location, and performance to enable efficient and effective end-to-end life cycle asset management.

The development of the AMDS has been achieved through consultation with subject matter experts from maintenance contractors, service consultants and representatives from Road Controlling Authorities (RCAs). All asset classes within the AMDS have been shared with the land transport sector for review and feedback before being formalised within the data standard.

The first release of the standard is now available for use by the land transport sector. The data standard will continue to evolve. New releases will be released as a 'candidate release', circulated to the transport sector for feedback, and once approved, incorporated into the next release version of the data standard.

## Identified benefits for suppliers:

The data standard introduces a common language for how the transport sector describes and measures the performance of land transport assets.

For suppliers, the introduction of a common language to describe land transport assets has multiple benefits, including:

- ✓ Enabling standardisation of data collection across clients.
- ✓ Reducing the effort required to find or re-create data.
- ✓ Reducing training costs as our workforce moves between clients.
- ✓ Providing an opportunity to standardise reports and take costs out of this activity.
- ✓ Supporting different suppliers to talk about things in the same way (for example, through standardising faults).
- ✓ Improving information for making better decisions on the land transport network.
- ✓ Reducing the time required to find, rework, and recreate data for analysis.

# About the AMDS Information Pack for Suppliers

**This document is for suppliers that directly use an RCA asset management database or use a staging or moderation instance of an RCA database to enter, validate or analyse asset data.**

The AMDS Information Pack provides you:

- ✓ access to guidance to use when exploring what will change for your organisation as a result of the AMDS
- ✓ awareness of where RCAs may engage with you as part of the data migration process.

This Information Pack has been informed through:

- interviews with suppliers to understand implementation considerations and challenges
- insights from suppliers as they focus on preparing their own organisations for the introduction of AMDS.

Waka Kotahi has developed an AMDS implementation framework and project templates to support RCAs. A copy of the framework is available in Appendix A of this document. Specific project templates can be requested by emailing [amds@nzta.govt.nz](mailto:amds@nzta.govt.nz).

This Information Pack is a 'living document' and will be reviewed after each implementation tranche to incorporate any lessons learnt or refine as required.

# Implementation of the AMDS into the land transport sector

## Implementation timeline and activities

Implementation of AMDS into the transport sector will be phased over a five-year period from 1 July 2022 to 30 June 2027. It is expected that all RCAs will have adopted AMDS by 30 June 2027.

The AMDS Implementation schedule for RCAs can be found here: [www.nzta.govt.nz/amds](http://www.nzta.govt.nz/amds)

Implementations are RCA led, with accountability for implementation planning, resourcing and implementation delivery sitting with each individual RCA. For further information on RCA implementation activities, refer to [www.nzta.govt.nz/amds](http://www.nzta.govt.nz/amds) (including information on the data migration process).

RCAs will be funded through the National Land Transport Fund (NLTF) at their Funding Allocation Rate (FAR) to support the implementation of AMDS. Some RCAs will engage a supplier to provide them with implementation support, with those costs covered by the RCA.

## RCA engagement with suppliers

We encourage suppliers to be proactive in discussing AMDS implementation with their customers.

RCAs are advised to engage early with their suppliers to talk about AMDS as part of their own pre-implementation activities. This is particularly important where RCAs have an existing contractual arrangement with suppliers for the collection, assessment, validation or analysis of RCA asset data.

We recommend that RCAs discuss their AMDS implementation strategy with suppliers, at least 12-18 months before their planned 'go live' implementation date. Early sight of RCA implementation timelines will provide suppliers with enough time to plan and prepare their own organisation accordingly.

# Preparing for AMDS implementation

This section covers the recommended activities for understanding the impact of AMDS on your organisation, and the tools and guidance available for you to use to get your people and business 'change ready'.

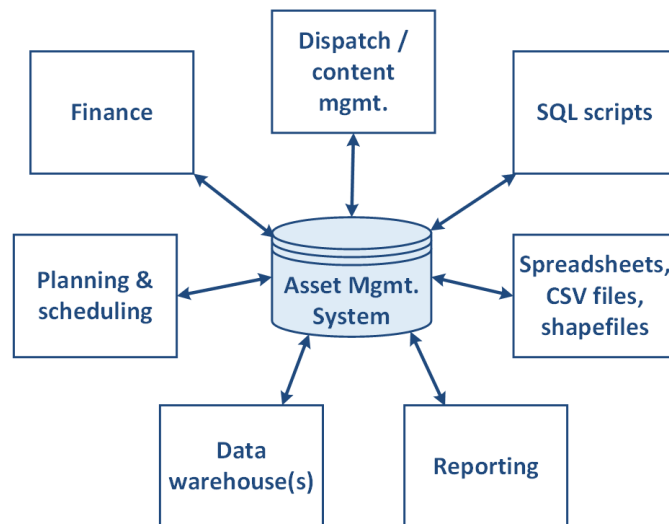
## Validate current operating environment

Capturing detail about the current asset management environment, will enable you to analyse how the data standard will impact on your systems, integrations, reports, and data collection tools.

Recommended areas to capture information on include:

- user defined tables that have been created within your Asset Management System
- data collection methods and tools used as part of data collection processes
- system integrations with your asset management system
- reporting.

The diagram below provides examples of the functions that may integrate with an Asset Management System.



When undertaking this analysis, ensure that both automated integrations and manual processes are captured (for example, CSV file extracts that are loaded into other systems).

A current state analysis template is available on the AMDS webpages.

## Getting your business and people 'change ready'

With the introduction of the AMDS, you are accountable for:

- preparing those within your organisation who collect, assess, validate, analyse or use asset data
- managing changes required to integrations, SQLs, reports, and business processes.

## Identifying key stakeholders

Start with identifying those individuals and teams (stakeholders) that will be impacted in some way by the introduction of the data standard. Key stakeholders should also include those that have an interest in the implementation of the data standard but are not directly affected.

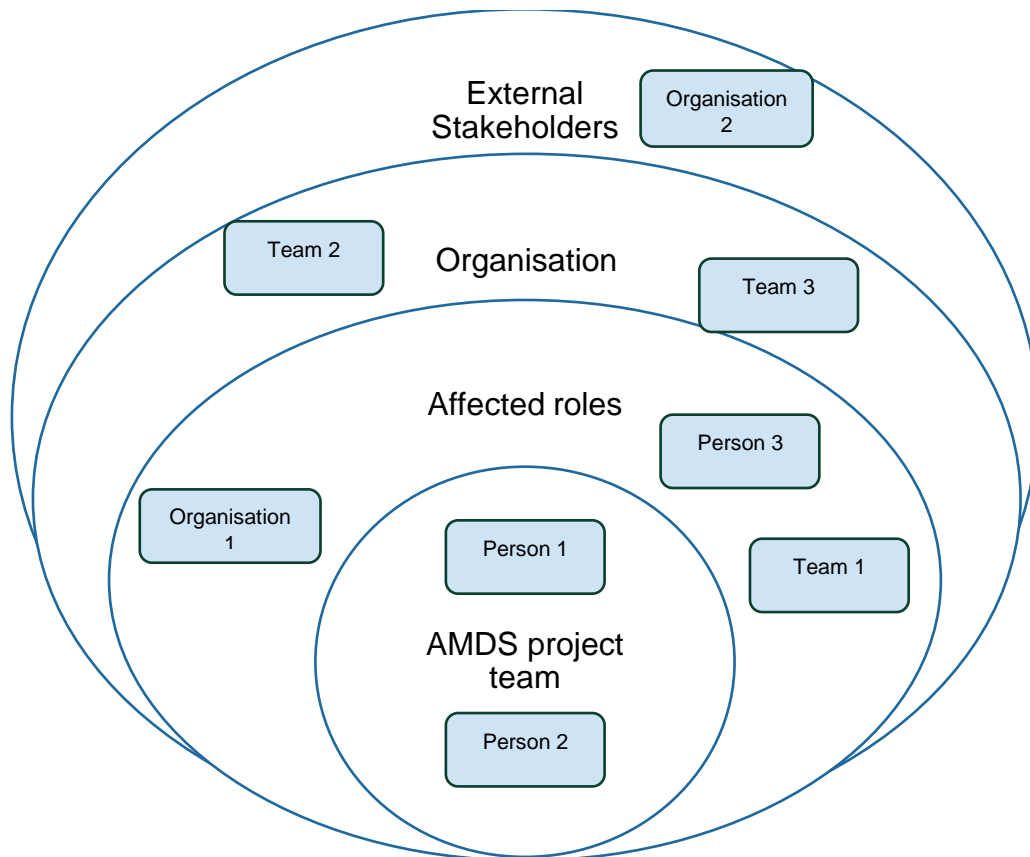
This information informs the engagement and communication planning, necessary to build awareness of, and support for, the adoption of the data standard in your organisation.

To identify key stakeholders, we recommend you complete a simple stakeholder identification activity. While completing this activity, consider involving others from relevant teams to the discussion.

The recommended stakeholder groups are shown the table below.

Stakeholder group	Definition
<b>AMDS project team</b>	People who will be part of the project team, vendor, suppliers, trainers and others directly involved in the implementation of AMDS.
<b>Affected roles</b>	Those roles that either collect, validate or consume asset data - this may be people within the council or 3rd party suppliers that collect asset data
<b>Organisation</b>	Other teams / functions that have an interest in, or influence over the success of the project
<b>External</b>	External organisations who have an interest in your AMDS implementation. This could include other councils in your region, consultants you work with, etc.

An example stakeholder analysis diagram is shown below:

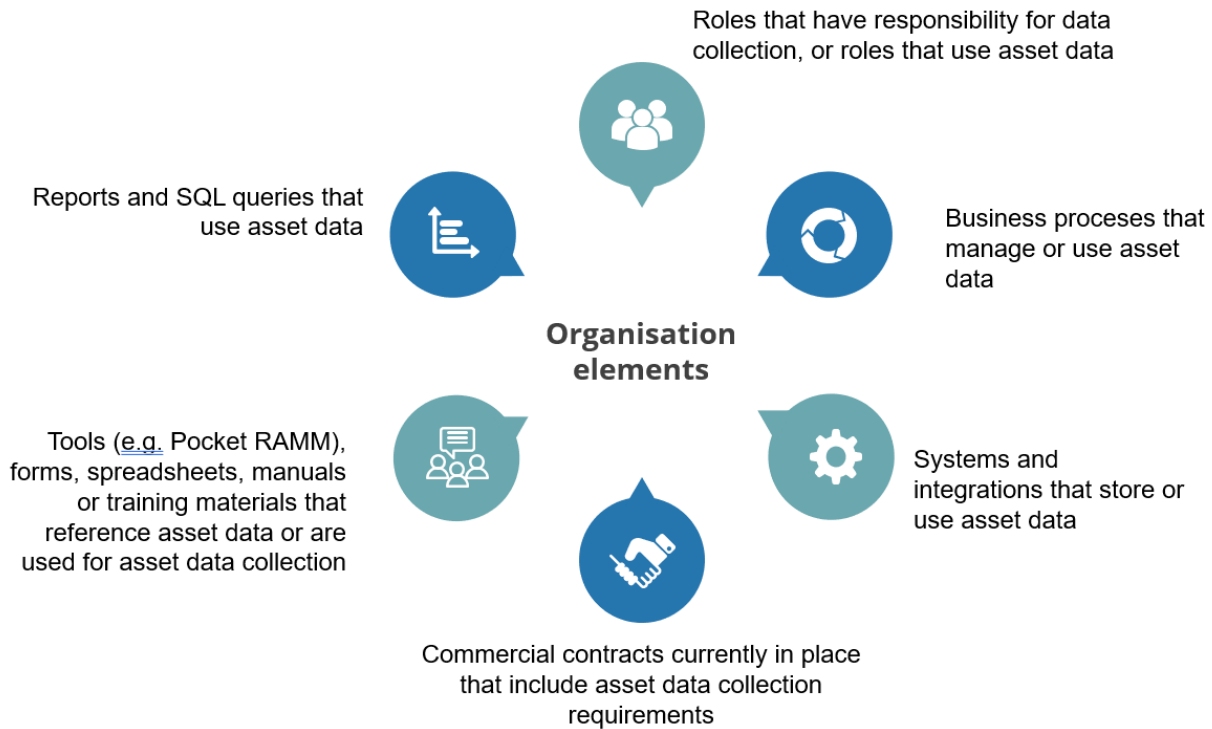




## Identify organisational impacts

It will be important for you to consider how this change will impact individual roles and the overall operating environment for asset management.

### How will the introduction of the data standard impact on your operating environment?



### Considerations for suppliers

1. Consider how the change in data structure (new asset types, attributes, and values) will impact on:

- internal systems and internal reporting (as identified in current state analysis)
- data warehouses / data lakes that use asset data (as identified in current state analysis)
- reports provided to clients that use asset data (as identified in current state analysis).

2. Consider how changes to data collection requirements (i.e., mandatory collection of some asset data) will impact on:

- existing data collection practices for construction projects and maintenance work (as identified in current state analysis)
- existing or new contracts with sub-contractors
- responses to tenders.

Identify who will need to know about these changes and build this into your communication and engagement planning.

3. Where your organisation is contracted to support multiple RCAs, and they are scheduled for implementation across different tranches:

- Identify what is required to maintain systems and business processes until all RCAs have migrated (which may be up to a five-year period).
- Identify what is required to maintain internal and external reporting until all RCAs have migrated.
- Consider the risks to be mitigated by your organisation when managing multiple iterations of the AMDS implementation across a long timeframe.
- Identify what support is needed from roles / teams in your organisation and build this into your project planning discussions.

### **Mitigating organisational impacts**

Identifying and managing impacts will contribute towards achieving **'people and business readiness'** for your organisation, in advance of an implementation. This readiness is demonstrated when all aspects of an organisation are appropriately informed and ready for the change, and people have the knowledge and skills to successfully complete new work activities.

## Communicate with key stakeholders

As you plan and prepare for the introduction of the data standard, it is essential you communicate and engage with people regarding the impending changes, particularly where others may need to alter current work practices.

Once stakeholders are identified, a **Communications Plan** can be developed. This plan should be dynamic. As the questions and points of interest are raised, additional details should be incorporated into the communications approach.

The communications plan includes the following sections.

<b>Phase</b>	The phase during which the communication activity will occur. (pre-implementation, implementation, or post implementation).
<b>Timing</b>	The proposed date the communication activity will occur.
<b>Stakeholder</b>	The stakeholder(s) that the communication is targeted at.
<b>Purpose</b>	The purpose of the communication. What do you want people to know or do because of the communication?
<b>Key messages</b>	Messages to be included in the communication. (A bank of key messages is available for your use)
<b>Channel</b>	The method chosen for communicating with the stakeholder(s).

Use a variety of communication channels to provide information and engage with identified stakeholders.

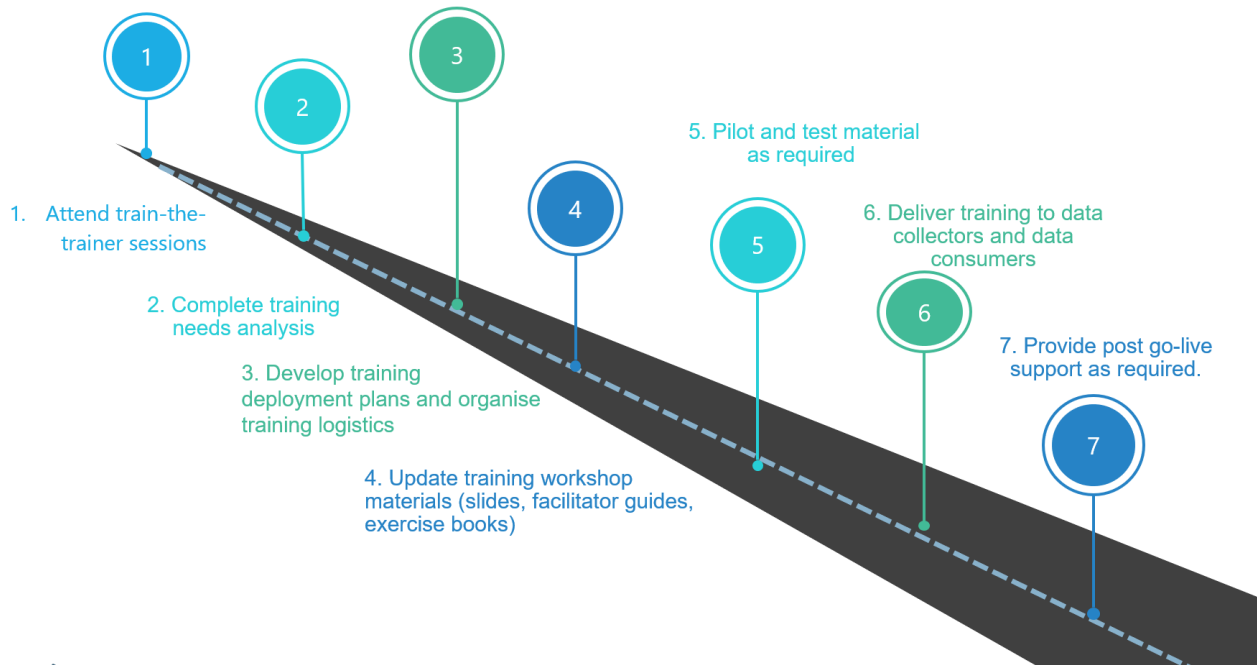
Channel options include:

1. one-on-one discussions
2. updates at team meetings
3. newsletters
4. visual displays in shared team spaces
5. lunch and learn sessions.

# Training

## Supplier Training development and delivery

As part of the AMDS implementation, you will need to identify **Training Champions** who will be accountable for the following activities:



To support Training Champions in their role, they will be invited to attend a **'Train-the-Trainer'** session delivered by Waka Kotahi alongside Training Champions from other organisations supporting the RCA.

Training Champions must attend the AMDS train-the-trainer sessions, as it will cover both theoretical and practical elements participants need to know about to perform their role as a Training Champion.

The train-the-trainer sessions will cover the following topics:

1. What is AMDS, what is changing and how does this impact the way we do things?
2. What is the role of the Training Champion?
3. How to complete a training needs analysis.
4. How to update the generic materials provided to ensure they are fit for purpose and practical exercises reflect local scenarios.

Training Champions will also have an opportunity to update training material for a module and deliver this training to others.

## Identifying your Training Champions

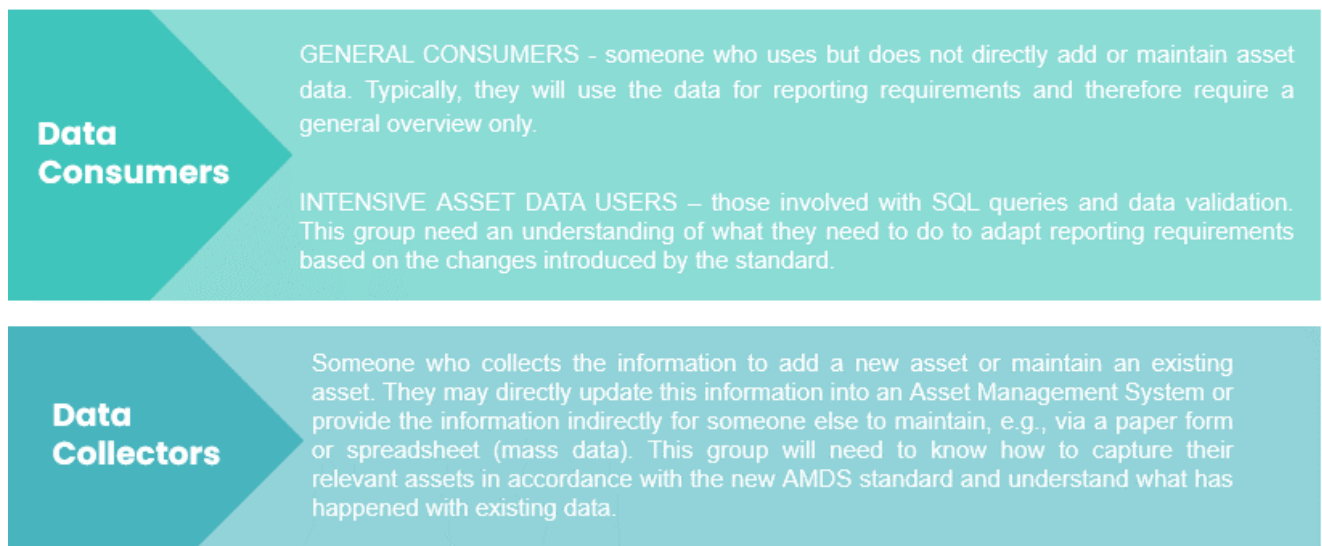
Consider the following criteria when selecting a Training Champion.

1. How many Training Champions do you need? This should be proportionate to number of learners.
2. Capacity – do they have the time to complete necessary analysis and training activities on top of their day-to-day work?
3. Are they motivated to self-prepare for training?
4. Are they willing and able to provide ongoing local support?
5. Are they comfortable with public speaking and facilitating sessions?
6. Do they have the local knowledge about local asset management processes within your organisation?
7. Are they experienced with your asset management system(s)?

AMDS Training Champions do not need to be SHDOM Trainer accredited unless your organisation is managing a State Highways database.

## Overview of AMDS training

There are two main groups that will require training:



The training is not focused on the functionality of an asset management system, rather what the changes are with the introduction of the asset management data standard.

### Training approach for data collectors

Training for data collectors involves participating in a face-to-face workshop run by your Training Champions. The training has been designed to be modular, so that data collectors only need training on those assets they are collecting data on.

End-user training will be completed using the tool that is typically used by the participants for data capture (for example, PocketRAMM or data capture forms).

Following training, Quick Reference Guides (on-the-job reference documentation) are available for data collectors.

# Data Migration

Data migration is the activity to translate an RCA's current asset data into asset data that conforms with the Asset Management Data Standard.

RCAs are responsible for data migration activities within their asset management system (AMS) as part of their own AMDS implementation work.

If a supplier maintains a copy AMS database for an RCA, they may also need to undertake data migration activities.

## Data mapping

A master mapping document has been developed and will form the basis for any RCA specific data mapping. This document is maintained by Waka Kotahi and will be updated as needed to ensure it reflects that latest release of the data standard and any lessons learnt during AMDS implementation.

RCA-specific data mapping is undertaken by a data analyst who has knowledge of the AMS and AMDS.

The AMS vendor will use this information to create and test data migration scripts.

## Data triage

The focus of data triage is on the data stored in the AMS that is not a core function within the system or required by AMDS.

RCAs will need to determine if the data is important. If so it can continue to be collected. If the data does not add value a decision can be made to archive the data.

## Data migration and go-live

The AMS vendor will confirm the data migration approach. It is likely that migration activities will be grouped by asset type and occur over a few days.

The RCA may ask suppliers to undertake user acceptance testing (UAT) and/or attend data migration stand ups.

Once all data migration activities are finished and validated the AMS conforms to AMDS.

As a supplier, from this point on, your data collection tools (for example, data capture forms) will need to be updated to ensure:

- data is captured in a format that aligns with the data standard
- any data capture requirements unique to the RCA are included in relevant spreadsheets or forms.

## Integrations

If a supplier has a system or process that interacts with an RCAs AMS, they are responsible for updating the integration/process and undertaking UAT. Waka Kotahi can run a workshop about how to use the mapping document to identify script changes.

## Important point to note

As part of the implementation process, RCAs are not required to plug information gaps. However, from the point of implementation onwards, as data is captured for new assets or as part of maintenance work, these mandatory values will need to be captured.

# Appendix A: AMDS implementation framework

AMDS Implementation Framework			
Stages & Quality Gates	Pre-implementation 3-12 months	Implementation 3-6 months	Post implementation ongoing
	<p>Quality gate 0: before you start</p> <p>Quality gate 1: ready to start implementation</p>	<p>Quality gate 2: ready to go live</p>	<p>Quality gate 3: implementation wrap up</p>
Key outcomes	<ul style="list-style-type: none"> <li>The total cost of AMDS implementation has been estimated and agreed with Waka Kotahi.</li> <li>AMDS implementation 'go live' date identified.</li> <li>Impacts to people, process and systems are identified and plans developed to manage the change.</li> </ul>	<ul style="list-style-type: none"> <li>Transport asset data conforms to AMDS.</li> <li>Training champions have delivered training.</li> <li>Impacted people know what has changed and how it affects them.</li> <li>Where required, systems, reports and process are updated and align to AMDS.</li> </ul>	<ul style="list-style-type: none"> <li>AMDS implementation lessons learnt captured and shared.</li> <li>Plan in place to improve asset data quality and completeness.</li> <li>Process in place to enable future version of AMDS to be adopted.</li> </ul>
Key activities	<ul style="list-style-type: none"> <li>Project planning (cost, scope, schedule, milestones, risks, issues, benefits, etc.)</li> <li>Establish project team</li> <li>Identify stakeholders</li> <li>Develop communications plan</li> <li>Determine organisational impacts</li> <li>Confirm the current state of your data, system integrations and reports</li> <li>Training champions identified</li> </ul>	<ul style="list-style-type: none"> <li>Training champions attend train the trainer workshops</li> <li>Training needs assessment completed &amp; training material customised</li> <li>Data mapping completed &amp; triage decisions made</li> <li>AMDS training delivered</li> <li>User acceptance testing</li> <li>Data migration completed</li> <li>Software update applied to asset mgmt. system</li> <li>Stakeholder engagement &amp; communication</li> </ul> <p>If required:</p> <ul style="list-style-type: none"> <li>Update system integrations</li> <li>Update processes, reports, documents etc.</li> </ul>	<ul style="list-style-type: none"> <li>Run lessons learnt workshop</li> <li>Review data quality assessment (DQA) report and identify improvements</li> <li>Participate in the AMDS community of interest</li> </ul>
Key documents	<p>Essential:</p> <ul style="list-style-type: none"> <li>Cost estimation spreadsheet</li> <li>Stakeholder analysis</li> <li>Current state analysis – data, systems &amp; reports</li> <li>Organisational impact assessment</li> <li>Communications plan</li> <li>Project management plan</li> </ul> <p>If required:</p> <ul style="list-style-type: none"> <li>Steering group terms of reference</li> <li>Advisory group terms of reference</li> <li>System integration plan</li> </ul>	<p>Essential:</p> <ul style="list-style-type: none"> <li>Data triage decisions</li> <li>Training needs analysis</li> <li>Customised training material</li> </ul> <p>Review &amp; update</p> <ul style="list-style-type: none"> <li>Stakeholder analysis</li> <li>Organisational impact assessment</li> <li>Communications plan</li> <li>Project management plan</li> </ul>	<p>Essential:</p> <ul style="list-style-type: none"> <li>Lessons learnt register</li> <li>Data quality improvement plan</li> <li>Project close report</li> </ul>

Please note:

- Waka Kotahi will meet with you to complete the quality gate review. It is recommended that you work through the quality gate checklist before this review.
- You can choose to use your organisation's project management templates or the AMDS implementation templates.