Road Asset Management (RAM)

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Asset Management Plans

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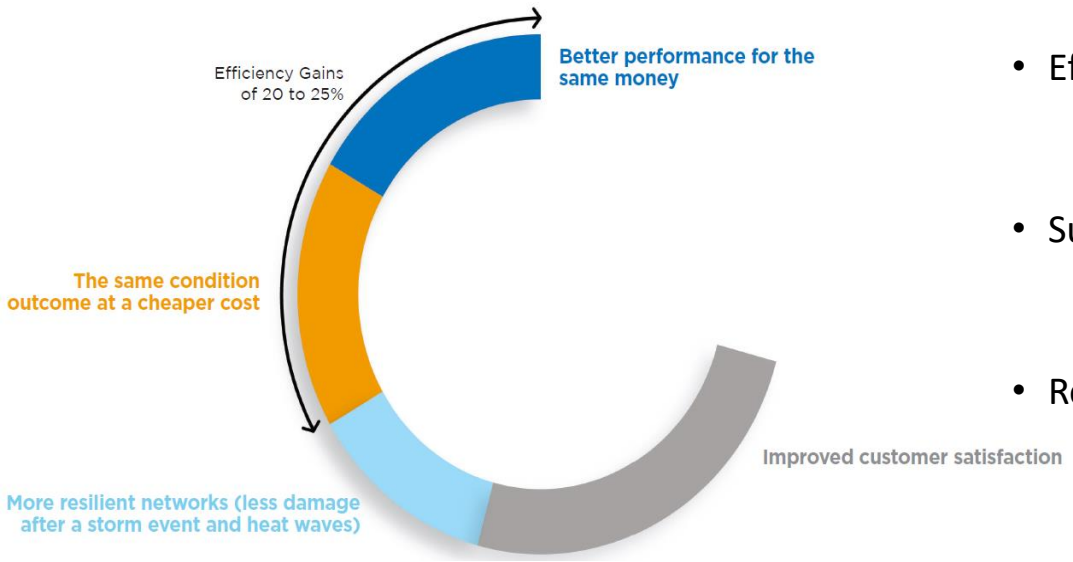
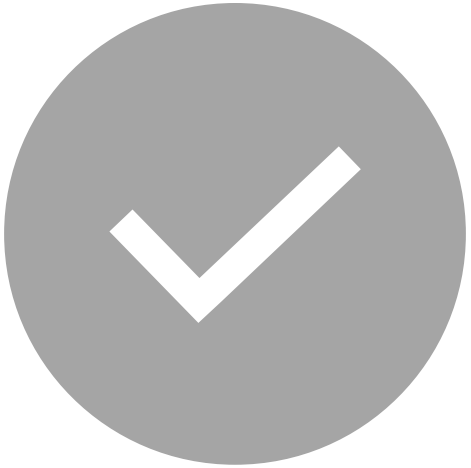
Road Asset Management Benefits



- Effectiveness
  - Asset or investment delivers required level of service
- Efficiency
  - Asset or investment makes best use of resources to deliver level of service
- Sustainability
  - Asset or investment delivers required level of service to present and future citizens
- Resilience
  - Extent that asset or investment can absorb, accommodate or recover from the effects of an event
- Adaptability
  - Extent to which asset or investment can respond to long term trends, new technologies, or changes in way services are delivered

Agenda

ASSET MANAGEMENT MANUAL



ASSET MANAGEMENT PLAN SECTIONS

What are AMPs?

Structured plan to present information about infrastructure assets and their management

Purpose of AMP: To ensure the organisation is operating in a financially sustainable manner

Have become the accepted national and international way of presenting this information

Business Case for the long-term financial investment covering a 3-10 year period

The Asset Management Manual

Resources Available

- International Infrastructure Management Manual 2015 and 2020 (Digital version)
- ISO55000
- Individual Guides
- Practice Notes
- Industry AMP templates i.e. TEC, CAM

Asset Management Balances Several Needs

Understanding the customer and their needs

Maintaining ageing infrastructure

Changing demographics and urbanisation

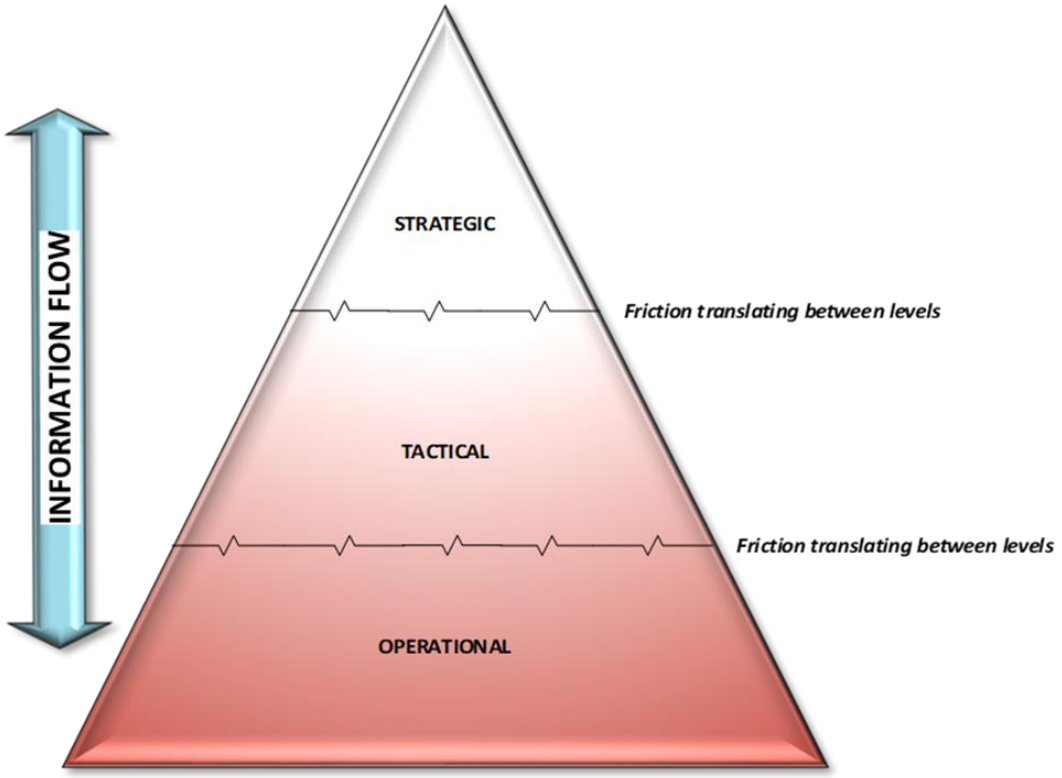
Infrastructure Services

Adapting to Natural Disasters

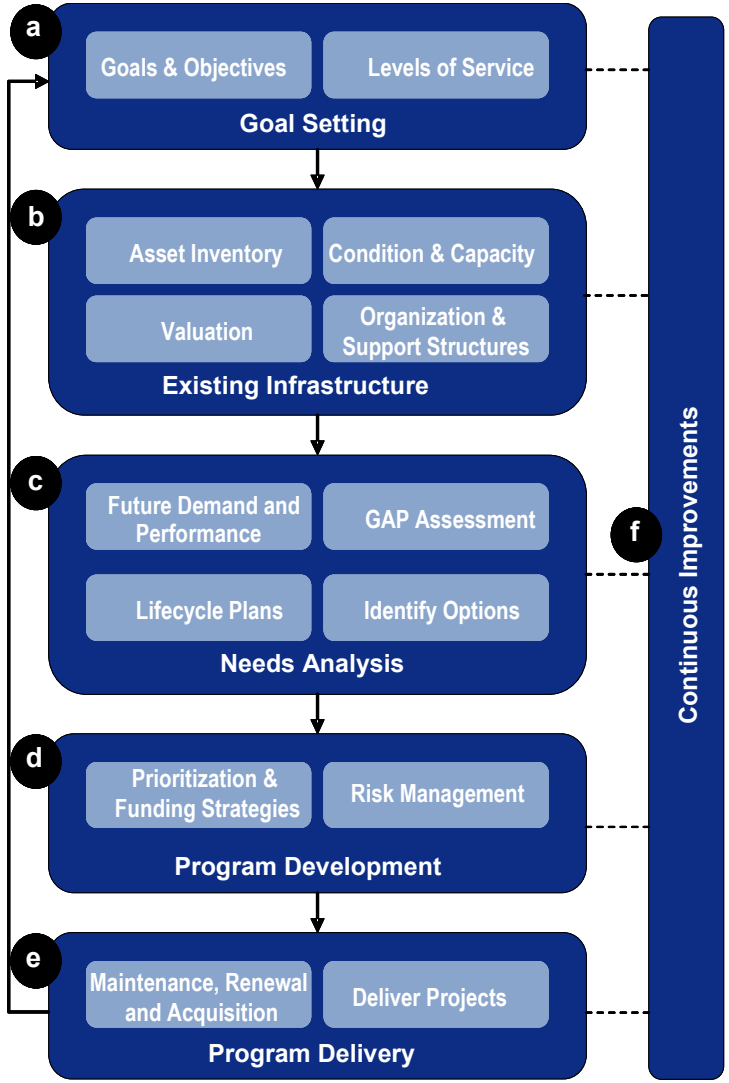
Spatial segmentation

Available Funding

Infrastructure AM – Levels of Practice



Typical AM Process



What do we want it to do?

What do we have?
What condition is it in?
What is it worth?

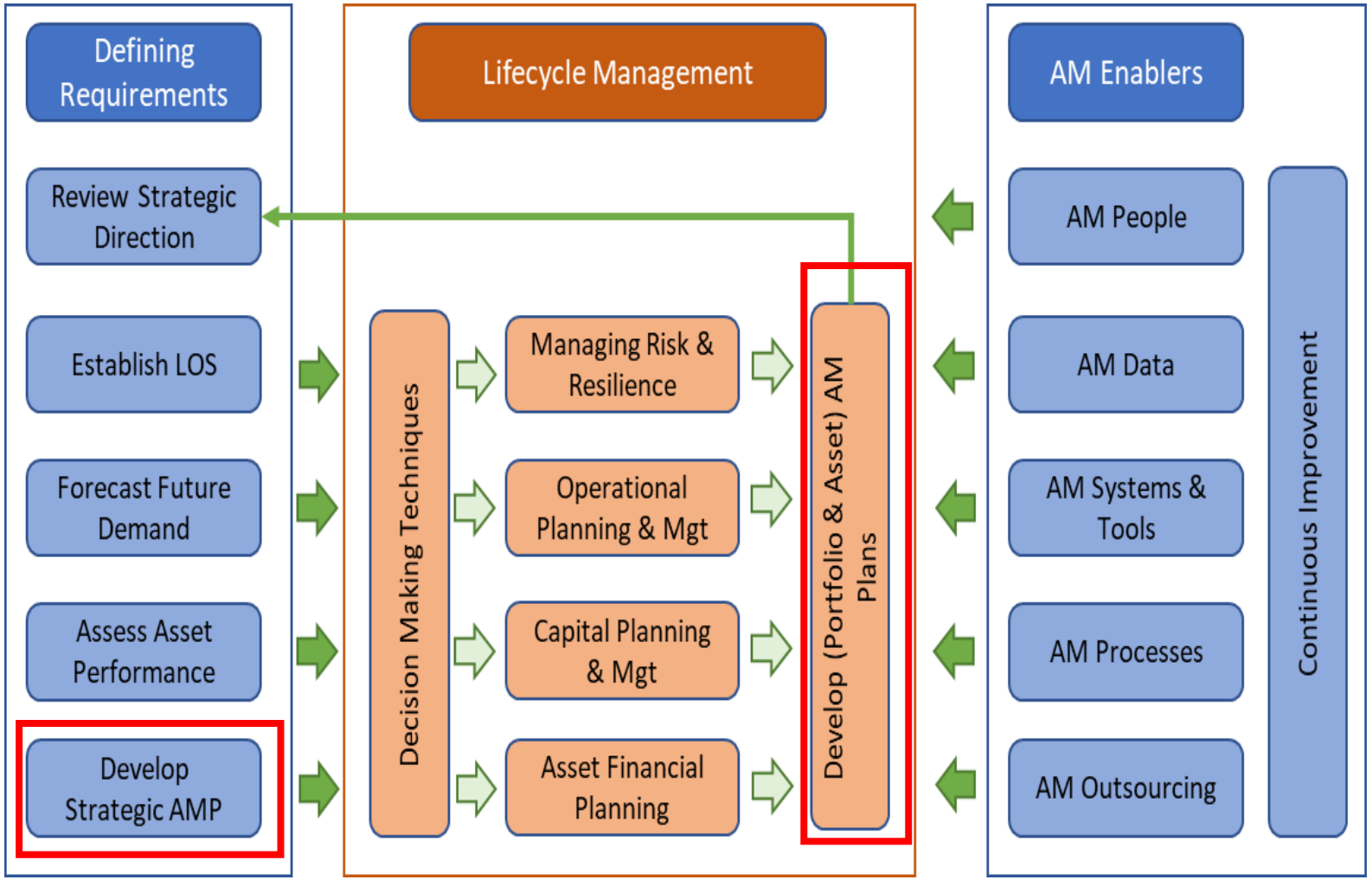
What do we need to do to it?

When do we need to it?
How much will it cost?

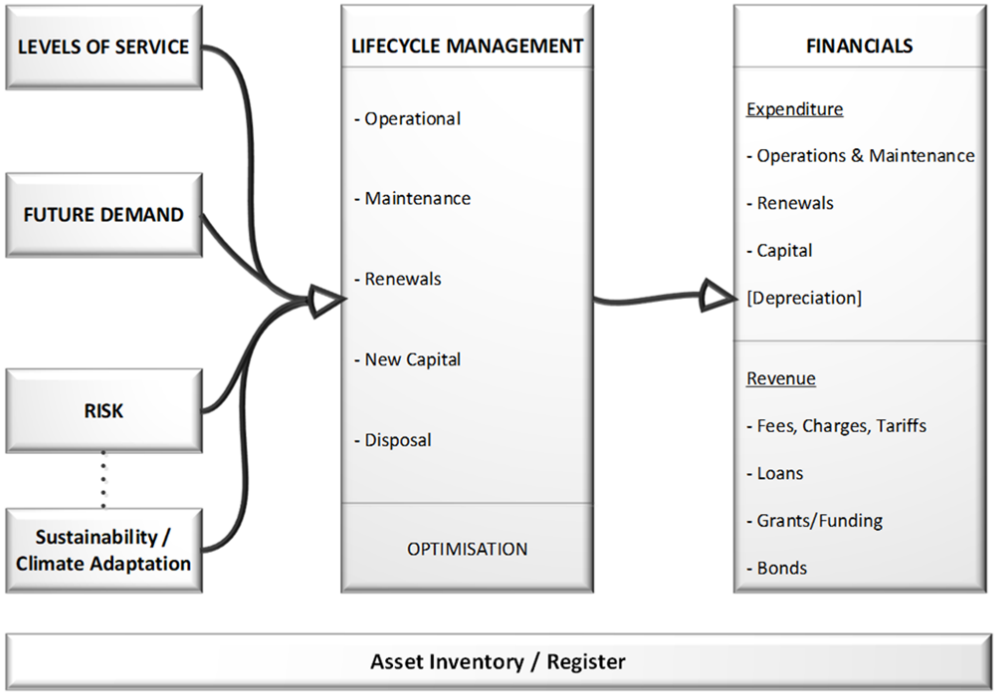
How will we deliver it?

Asset Management Plan Sections

Asset Management Framework



Service Levels, Growth, Risk, Lifecycle Management



AMPs How do they fit together?
Describe Assets

1. Describe your assets, inventory, register
2. Summarise information
3. How good is the information?
   a. Base inventory
   b. Asset condition
   c. Asset performance

AMPs How do they fit together?
Service Levels

1. What are the current service levels
2. Are you meeting legislated, agreed requirements
3. What service levels are changing
4. Where are the service level gaps
5. What do you need to do and what do you need to invest to meet service level gaps

AMPs How do they fit together?
Demand

1. What is changing
2. Where is the growth
3. Where is the decline (economic decline, population decline, natural hazard/climate hazard, drought, lack of water resources, war)
4. What is your asset capacity, are you using capacity up
5. What do you need to do, invest to meet demand gaps
6. What new assets do you need to meet demand, what assets do need to dispose of due to demand changes

AMPs How do they fit together?
Risk

1. What are your risks – asset, business, natural hazard, climate change
2. What is changing
3. How are you managing or mitigating risk
4. How are you financing risk (insurance)
5. What do you need to do, invest to meet risk gaps
6. How do you make decisions about managing risk

AMPs How do they fit together?
Lifecycle Management

1. Link to service level, demand and risk changes/gaps
2. What are your current and future predictions of operations and maintenance
3. What are your current and future predictions of asset renewals, rehabilitation, refurbishment
4. What are your current and future predictions for new assets required
5. What are your current and future predictions for assets disposal
6. How are you financing the asset portfolio lifecycle
7. How can you optimise asset lifecycle management

AMP Table of Contents

Purpose of each AMP Sections (Slide 1)

- 1- Executive Summary
  - Summary of the AMP highlighting key analysis, issues, themes and financial outcomes
- 2 - Introduction
  - Introduction to the AMP, structure, timeframe, responsibilities, PGAM Policy
- 3- Description of the Assets
  - High level overview of the assets covered by the AMP, their current, condition, performance, valuation, insured status and Departments covered. This information could be summarized from NARS or legacy asset management system

Purpose of each AMP Sections (Slide 2)

- 4 - Levels of Service
  - Legislation, Regulations, Circulars applying to the assets covered by the AMP
  - Current service levels required and performance against service levels
  - Future service levels required, service level gaps observed, and infrastructures required to close service level gaps

- 5 - Future Demand
  - Future demand requirements outlined – population growth, population urbanisation, climate change and adaptation

Purpose of each AMP Sections (Slide 3)

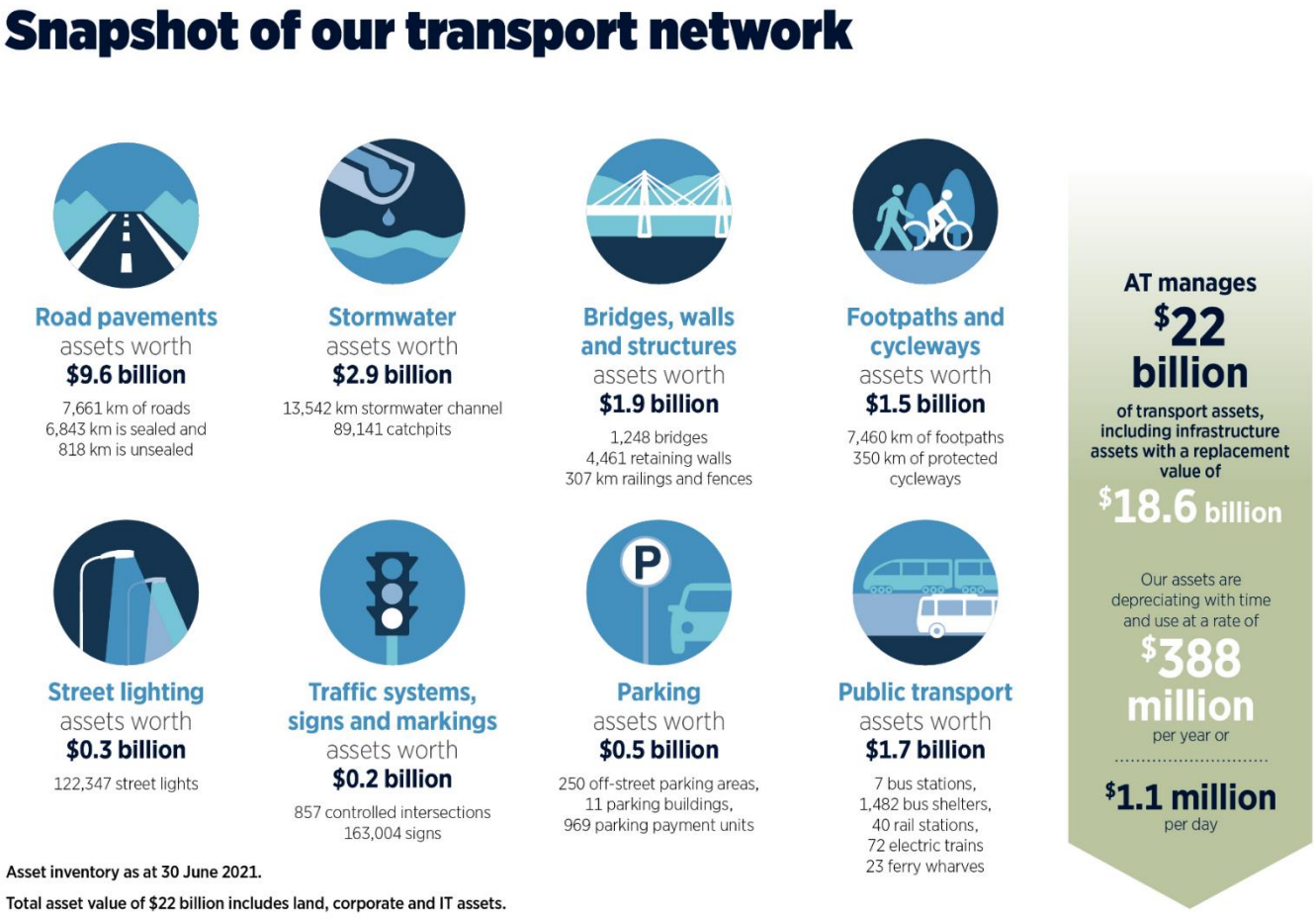
- 6 - Natural Hazard Resilience Planning
  - Understanding the hazards, exposure and impacts of all natural disasters on infrastructure and infrastructure services
  - Resilience Plan will include natural hazards, disasters, and the impacts of climate change, climate adaptation
- 7- Infrastructure Risk Management Planning
  - Discusses the unforeseen risks that may affect the assets and their performance, as well as the proposed actions to minimize the effects of the risks
- 8 - Sustainability
  - Provide information on sustainability practices including responses to climate change, climate adaptation initiatives
- 9 - Lifecycle Plan
  - Plan for management of asset lifecycles including the Maintenance Plan, operating of assets, asset rehabilitation/renewal/replacement and new capital/new assets required to meet the specified service levels, growth projections and managing identified risks

Purpose of each AMP Section (4)

- 10 - Financial Plan
  - Provides a summary of detailed cost estimates needed to implement the intended actions, maintenance of assets, action on asset-related risks and new capital to meet the requirements from service level changes and growth
- 11 - Sector Asset Management Practices
  - Outline the application of the ISO55000 ‘asset management system’ and asset management practices that the sector is deploying to meet the PGAM Policy and associated management requirements
- 12 - Performance Plan
  - Lists actions and plans to meet the performance requirements of the ’asset management system’, asset performance, and organizational maturity (people, skills/capacity, tools, processes)
- 13 - Annexures
  - Detailed information required
  - Glossary of Terms

Auckland Transport

- www.at.govt.nz



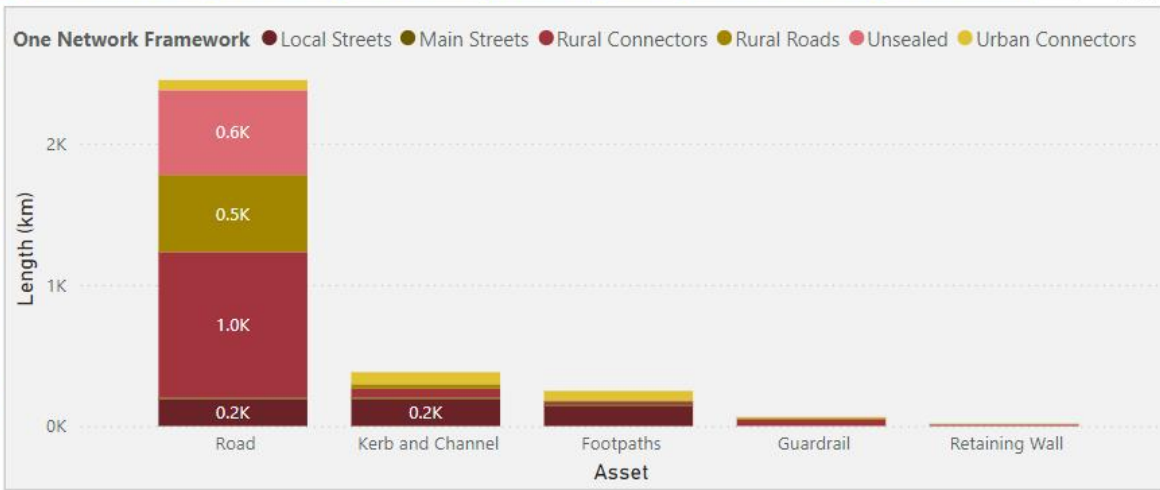
Digital Road AMP

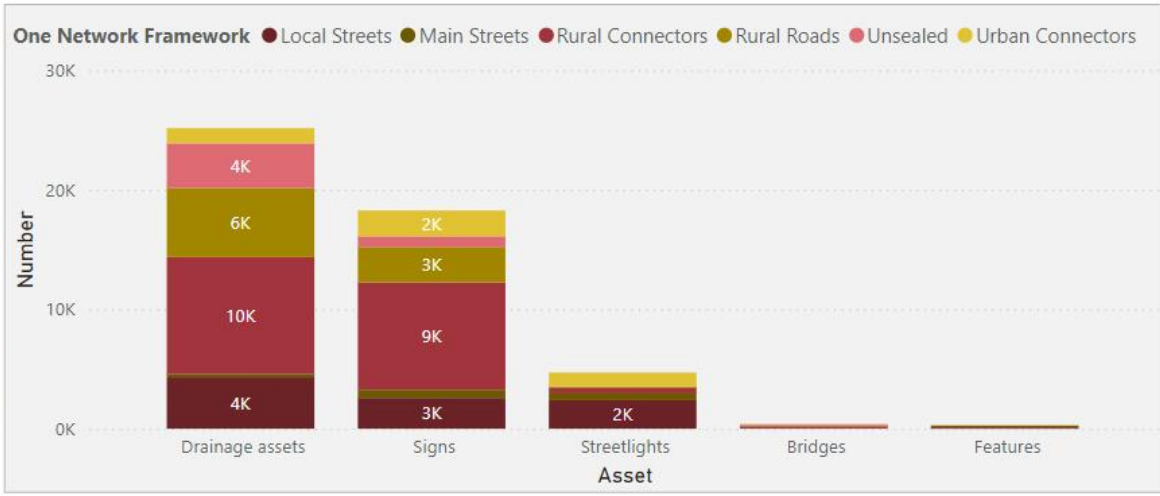
Transport Activity Management Plan 2021

Introduction | Strategic Context | Challenges | Growth | Current State | Levels of Service | Scenarios | Programme | Delivery | Risk | Financial Summary | Improvement

Current State
Asset Inventory
Asset Age
Asset Condition
Critical Assets
Peer Comparison
Data Reliability

Local Streets
Main Streets
Rural Connectors
Rural Roads
Unsealed
Urban Connectors





Questions

- Do you produce an AMP?
  - If so, who is the target audience?
- Do you have your AM processes documented?
- Do you need any assistance in this area?
  - Producing templates or documenting current business practices?