ROAD INFRASTRUCTURE MANAGEMENT FORUM

Our Carbon Equation

New Zealand

IPWEA
INSTITUTE OF PUBLIC WORKS
ENGINEERING AUSTRALASIA

Asset Management Data Standard (AMDS) – Unlocking the value of data

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Technical Director – Asset Management, WSP

RIMS
Roading Infrastructure Management Support

in association with

IDS
Infrastructure
Decision Support

Introducing the AMDS

What we are hoping to achieve

- Improving the management of land transport asset management information.

- Establishing a common language the sector can share.

- Putting in place a standard for asset information, including:

    - inventory

    - condition

    - performance

    - demand

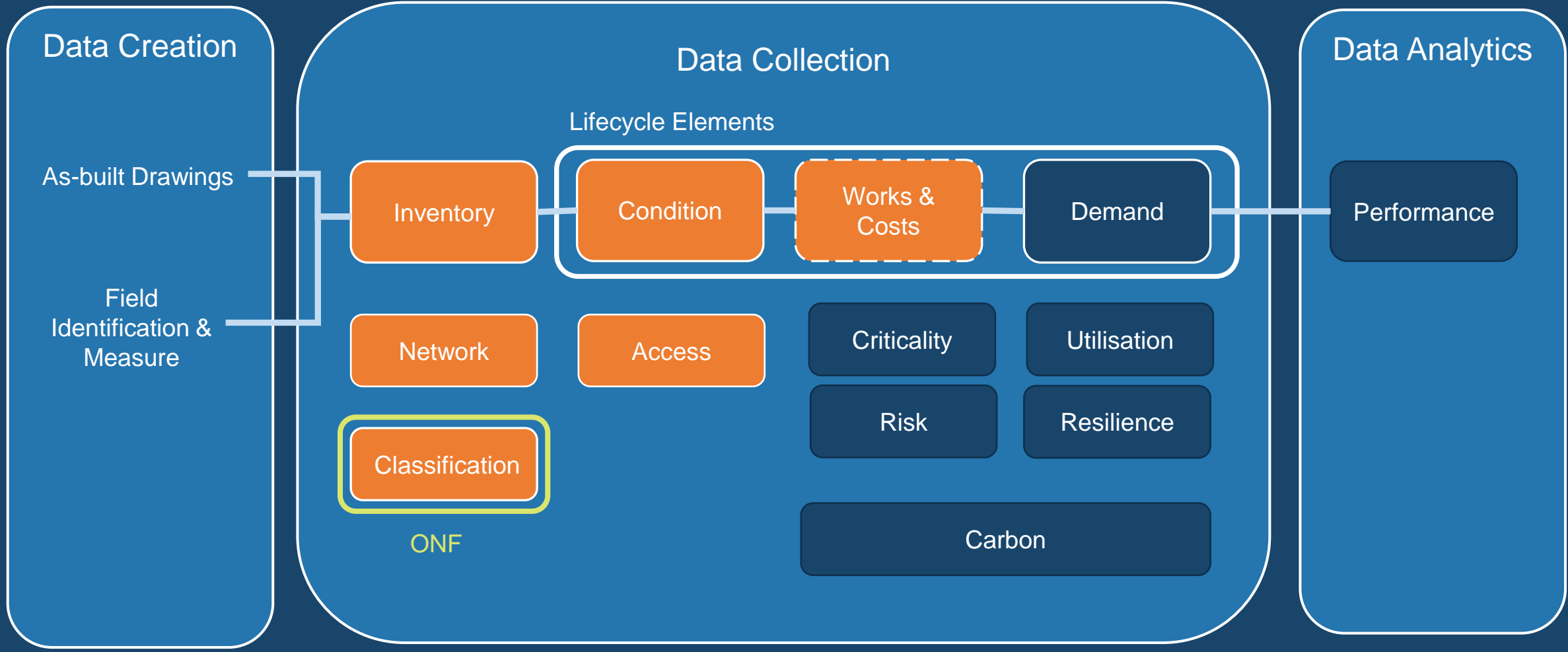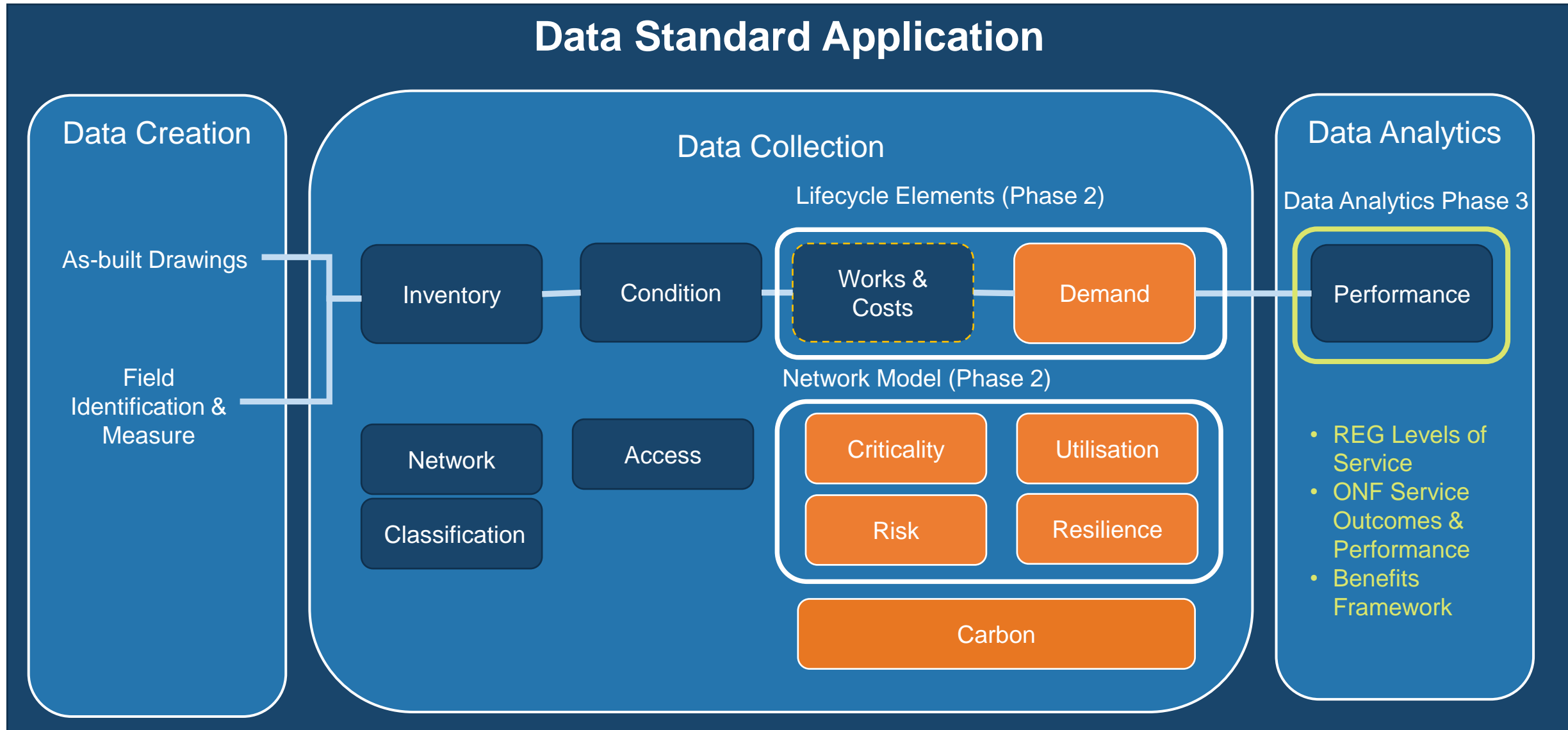   - works, and

    - controls.

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Data Standard – Release 1

Overview

AMDS – Release 1

Data Standard Application

Data Creation
- As-built Drawings
- Field Identification & Measure

Data Collection

Lifecycle Elements

Inventory | Condition | Works & Costs | Demand

Network | Access

Classification
ONF

Criticality | Utilisation
Risk | Resilience
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Data Analytics
- Performance

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Data Standard Application – Next Steps

Data Standard Application

Data Creation
- As-built Drawings
- Field Identification & Measure

Data Collection

Lifecycle Elements (Phase 2)

Inventory — Condition — Works & Costs — Demand

Network Model (Phase 2)

Network

Classification

Access

Criticality | Utilisation
Risk | Resilience

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Data Analytics

Data Analytics Phase 3

Performance

- REG Levels of Service
- ONF Service Outcomes & Performance
- Benefits Framework

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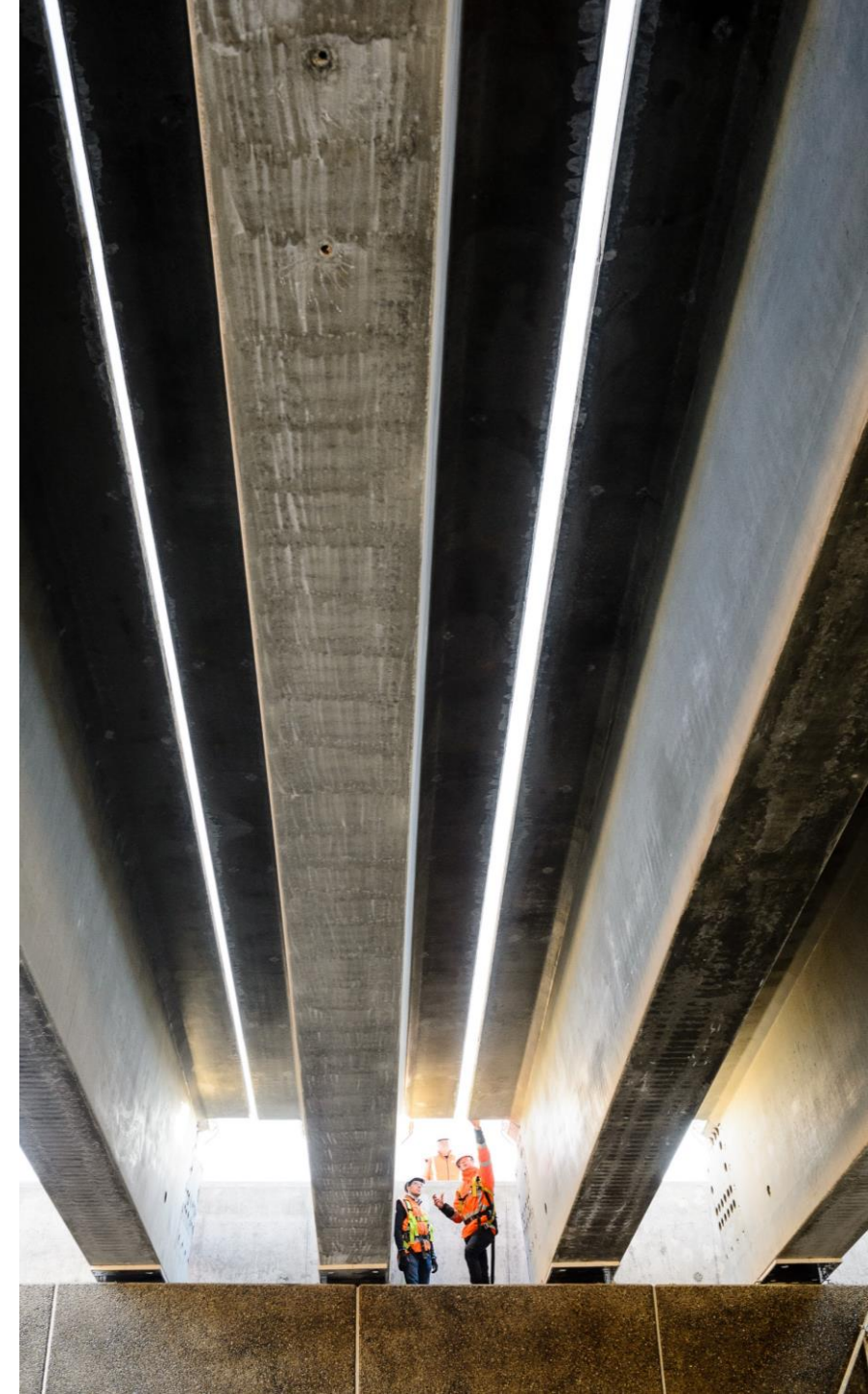# Preparing for implementation

Overview

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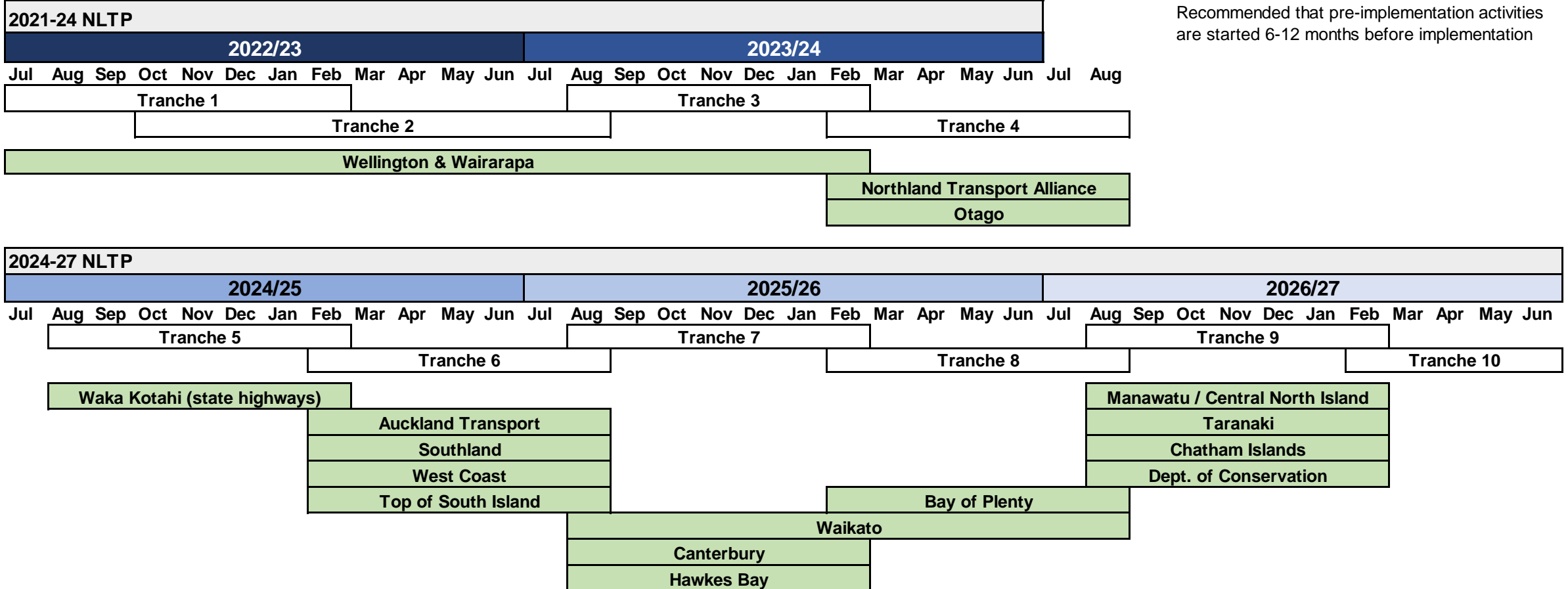
Implementation approach

AMDS implementation is Road Controlling Authority (RCA) led

- This approach recognises that RCAs are different and have individual operating environments.

- Provides RCAs with flexibility about how they manage their AMDS implementation.

- Implementation of AMDS has been split into ten tranches and phased over five years

- All RCAs have recently been emailed to let them know the implementation tranche they have been assigned and the dates.
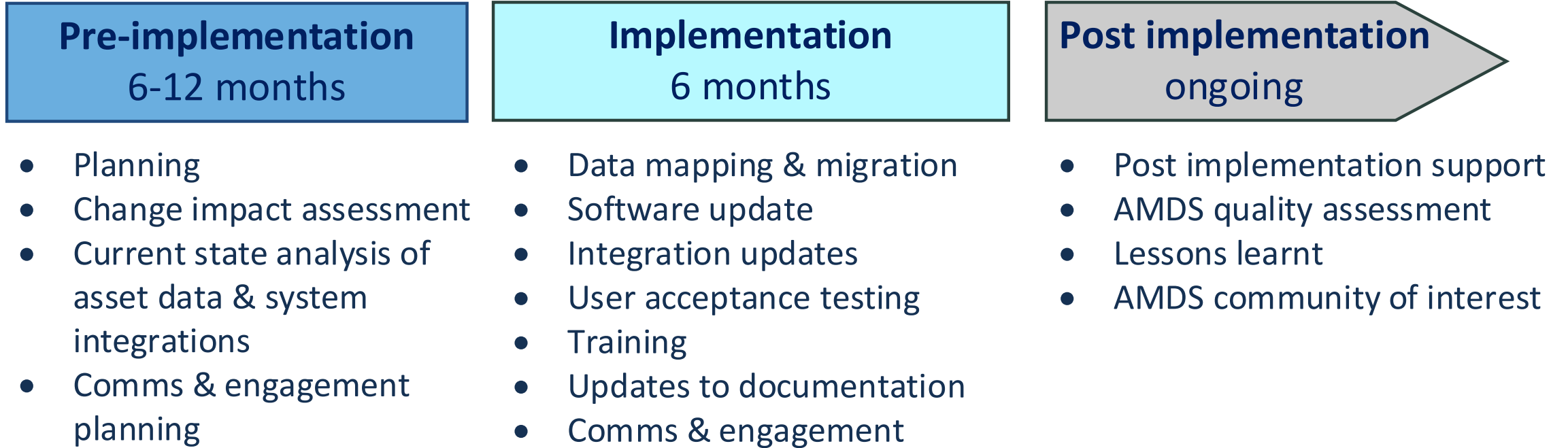
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AMDS implementation schedule

Recommended that pre-implementation activities are started 6-12 months before implementation

2021-24 NLTP

2022/23	2023/24

Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug

- Tranche 1
- Tranche 2
- Tranche 3
- Tranche 4

- Wellington & Wairarapa
- Northland Transport Alliance
- Otago

2024-27 NLTP

2024/25	2025/26	2026/27

Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun

- Tranche 5
- Tranche 6
- Tranche 7
- Tranche 8
- Tranche 9
- Tranche 10

- Waka Kotahi (state highways)
- Auckland Transport
- Southland
- West Coast
- Top of South Island
- Waikato
- Canterbury
- Hawkes Bay
- Bay of Plenty
- Manawatu / Central North Island
- Taranaki
- Chatham Islands
- Dept. of Conservation

AMDS implementation is RCA led.
Some RCAs have chosen to adopt AMDS earlier or later than others in their region.

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What does implementation look like

Stages and activities

Pre-implementation 6-12 months	**Implementation** 6 months	**Post implementation** ongoing

Pre-implementation
- Planning
- Change impact assessment
- Current state analysis of asset data & system integrations
- Comms & engagement planning

Implementation
- Data mapping & migration
- Software update
- Integration updates
- User acceptance testing
- Training
- Updates to documentation
- Comms & engagement

Post implementation
- Post implementation support
- AMDS quality assessment
- Lessons learnt
- AMDS community of interest

Tools to support implementation

Waka Kotahi will provide tools, guidance and quality assurance

AMDS Playbook and tools		
Implementation approach	**Communications & engagement**	**Data mapping & quality assurance**
• Overview of implementation timeframes, activities, quality controls • Step by step guidance of key activities • Insights from previous implementations	• Key messages for different stakeholders • Benefits for different audiences	• Mapping analysis for all asset classes • Mapping analysis for legacy tables/data, e.g. minor structures, features, etc. • Templated UDTs for all asset classes • SQL scripts • Data quality assurance (DQA) tool & reporting function
Tools	**Training**	**Post implementation**
• Templates* • Checklists • Supplier list	• train the trainer sessions • training needs analysis support • kitset workshop and reference materials	• AMDS change & release processes • AMDS community of interest

*If your organisation has equivalent templates, these can be used.

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AMDS implementation

Update on RCAs progress

- **Tranche 1:** completed pre-implementation activities, starting implementation activities July/Aug 2022

- **Tranche 2:** working on pre-implementation activities, on track to start implementation activities late 2022/early 2023

- **Tranche 3:** initiating conversations with us about their AMDS implementation, starting resource planning and impact assessments

- **Larger councils:** recommended that they start to plan their implementation now, in particular looking at the business change and system integrations

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What RCAs can do now to get ready

Your assets and the data standard

- Review the data standard output files on the [AMDS website](#).

- Identify the data you do/don't collect

- Discuss the data standard with your subject matter experts

Your systems and processes

- Identify systems that use asset data, including spreadsheets and CSV files.

- Create a diagram to show data inputs and outputs and how/where the data is used.

- Do a stock take of procedures, FAQs and training material that support asset data mgmt.

Your business planning

- Include AMDS implementation in your business planning.

- Identify who will be involved in your AMDS implementation.

- Consider other projects and/or business changes which are planned to occur at the same time as your AMDS implementation.
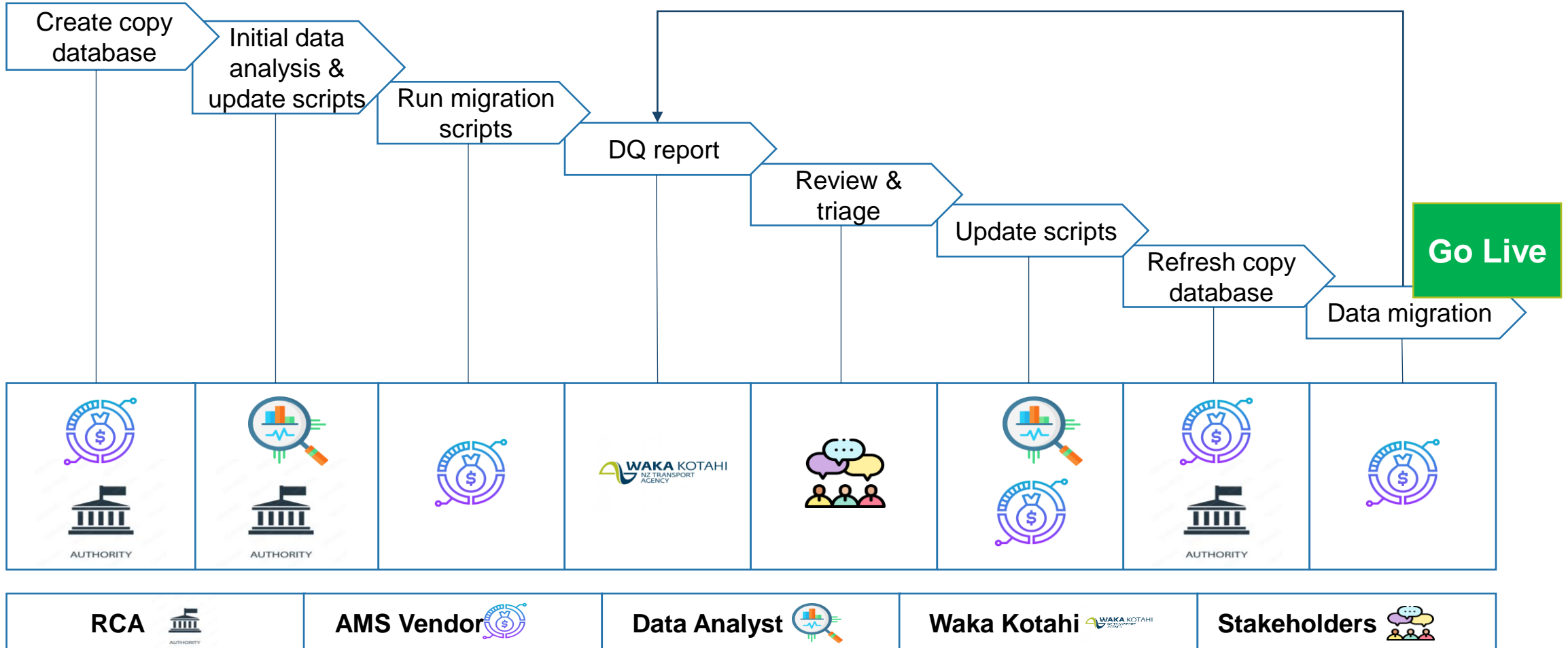
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Key implementation activities

Overview

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Data migration

High level activities

Create copy database → Initial data analysis & update scripts → Run migration scripts → DQ report → Review & triage → Update scripts → Refresh copy database → Go Live → Data migration

| RCA | AMS Vendor | Data Analyst | Waka Kotahi | Stakeholders |

Key things to note….

- RCAs will adopt the latest release of the data standard. For tranches 1 and 2 this will include inventory assets and maintenance faults and works

- AMDS implementation is about applying the data standard to the RCAs currently collected asset data

- Once the RCA has adopted AMDS they will be able to develop an asset data improvement plan that meets the needs of their organisation

- Waka Kotahi are developing tools to support you, this includes a Playbook, mapping analysis, SQLs, DQA tool

- You won't lose any data

Hei konā mai

Visit the AMDS website for updated information:

https://www.nzta.govt.nz/amds

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