

Transport for NSW Technically Assured Organisation (TAO) Industry Briefing

Asset Management Branch

7 Dec 2023



transport.nsw.gov.au



Acknowledgement of Country

Transport pays respect to Elders past and present, and recognises and celebrates the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of NSW.

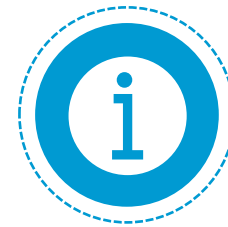
Housekeeping



Raise your hand
Camera off



Q&A is available
after the
presentation



Information
session

Pack will be
circulated

Purpose

Annual Industry Briefing on TAO

This year our focus has been on improving the TSA Framework and TAO Scheme by addressing key strategic themes.

Today we will:

- Report back on progress against our priorities for 2023
 - provide an overview of changes to the TSA Framework and TAO Scheme
 - provide an update on progress with TAO maturity profiles
 - provide an update on activities to move Transport towards a single multi-modal scheme
- Provide a preview of the potential areas for improvement in 2024

Where we have come from

Reflection on our journey from 2020 to now

John Hardwick

Executive Director Asset Management
Safety Environment and Regulation
Transport for NSW



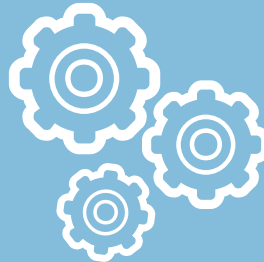
Technical assurance at Transport

The standard set in NSW is based on international practice

Technical Supplier Assurance and the TAO Scheme uphold the current standard used in Europe and the UK



Our approach is to use an accreditation process and delegate technical authority



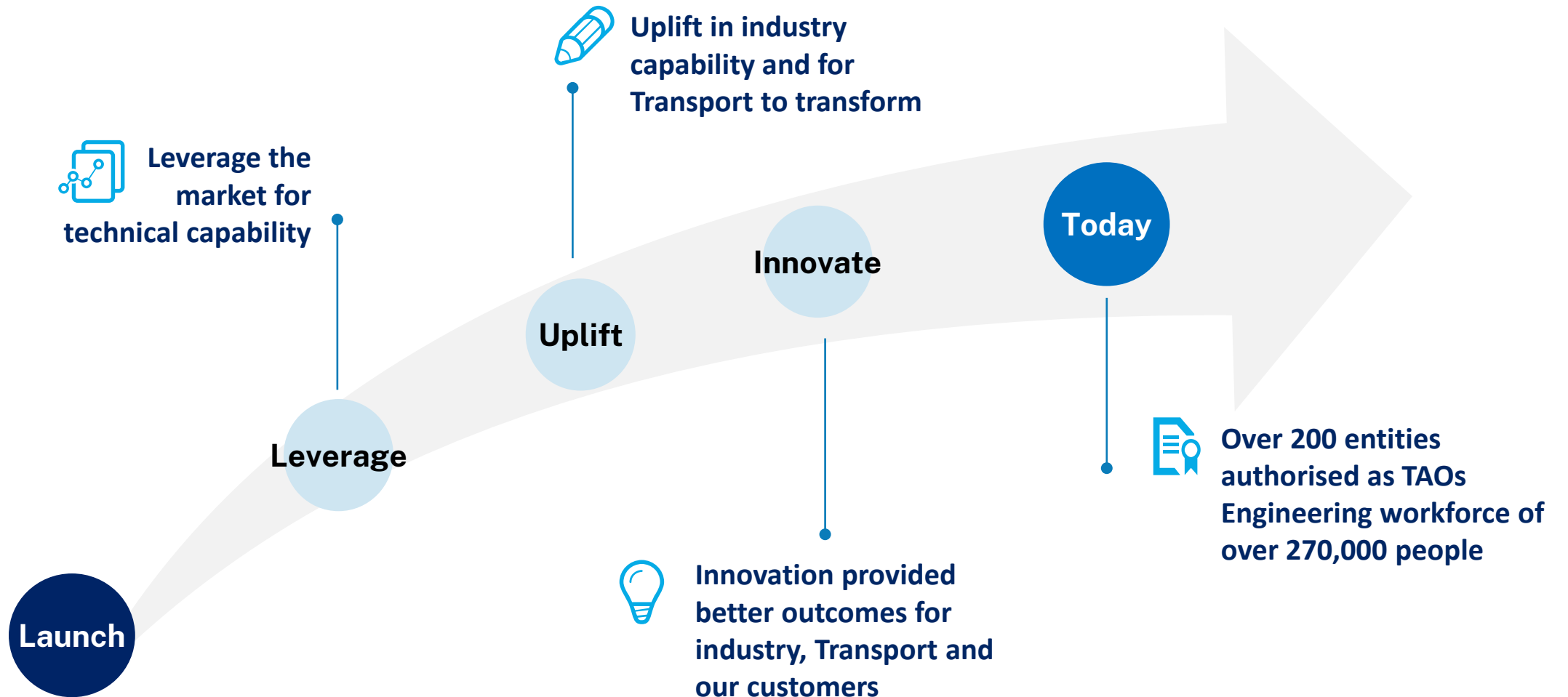
The TAO Scheme has been validated by many external and independent sources



Our approach is recognised across Australia

Our journey over the last 10 years

Transport technical authorisation approach for rail launched in 2013





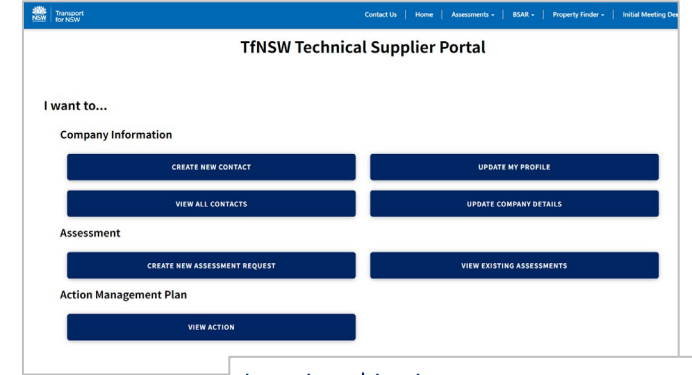
RGB Assurance Pty Ltd



Collaborative approach to improvement

In the last three years we have embedded a continuous improvement approach

Change Area	Principle 1: Clear Accountability	Principle 2: Assurance arrangements	Principle 3: Technical capability and competency checks	Principle 4: Early Collaboration	Principle 5: Held to Account
Programmed Solutions	Principle/ Specialist relationship Specialist AEO pathway Accountabilities of integrators	Contract align to supplier assurance requirements	Standard interpretation of the matrix Manage competence in the supply chain Simplify the matrix	Early collaboration Supply chain involved in reviews	Performance Scorecard All parties understand common goals Development of trust
Programmed Changes	Releasing a framework and a high level BASU that outlines the intended deal vs supplier assurance expectations Clarification of the Systems Integrator capability and proposing a 3 or 4 tiered approach	Retain the AEO Capability check in the procurement process but make it easier by creating standard matrix coverage for different types of projects	Simplifying the Matrix by: 1. moving front end asset lifecycle to below the line 2. updating wording and consolidating some sub-disciplines Clarifying the competency requirements by: 1. reviewing requirements 2. updating documentation and 3. emerging some requirements.	Looking for consistency across the design review process	Strengthen use of the performance side of the model which is already documented but not often used by: 1. making AEO Maturity rating flexible and public 2. offering a way to record AEO performance 3. Strengthening of use of performance information as an input into the audit program.



Learning objectives
At the end of this course you will be able to:

- ✓ Understand the Technical Supplier Assurance (TSA) Framework and its application
- ✓ Understand the Technically Assured Organisation (TAO) Scheme and its application
- ✓ Understand the processes supporting the scheme and the role you play
- ✓ Consider various scenarios in how to implement the scheme under different circumstances

01

Phase 1 - 2020
Listened to Transport and Industry

02

Phase 2 - 2021
AEO retired and TAO established

03

Phase 3 - 2022
Continual improvement

Changes for 2023

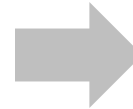
Summary of progress made and improvements being released

Kim Appleby

Director Supplier Assurance & Engagement
Safety Environment and Regulation
Transport for NSW

Industry priorities for 2023

Your feedback helped us identify key strategic priorities



Key themes

1. Process improvement
2. Multi-modal
3. Diversification of suppliers
4. Simplification

Authorisation
process

Recognition &
Performance

Maturity
ratings

TAO
Matrix

What has been achieved in 2023?

This year we have taken a strategic continual improvement approach focused on getting supplier assurance right for rail with a view towards a single scheme


1 Systems Integration Training Released



2 Matrix Recalibration Completed



3 Performance System Current State



4 Maturity Profile Release

NEW



5 Surveillance & AMR Automation



6 Annual Update



TSA Framework and TAO Scheme

Updated TSA Framework

A review of the TSA Framework has been completed this year

New principle: Enable Innovation

**TAO coverage
for entities
carrying out
technical
Asset
Steward
activities**

**TAO requirement for
technical due diligence**

Note: Definition of technical due diligence is subject to further review and will be confirmed in a future release.

**Guidance on framework
application for non-
mandatory modes**

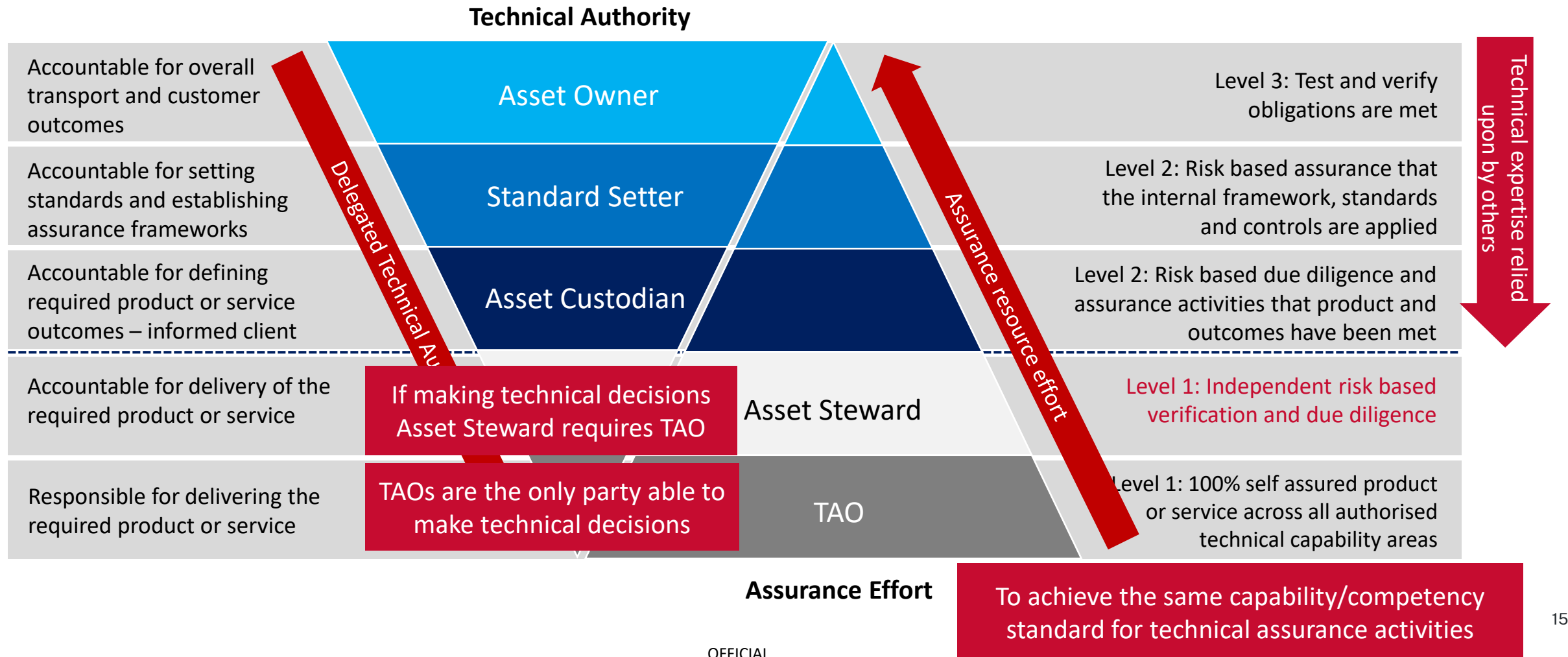
**Clarity on system
integration related
assurance**

**Updated references,
process description and
terminology**

Reinforce TAO's obligation of self-assurance

Asset Steward and Due Diligence Changes

These changes achieve the same capability/competency standard for all technical assurance activities enabling them to be relied upon.



Transition Period

There will be a transition period for the new requirement for Asset Stewards and Technical Due Diligence accreditation.

Light Rail



Heavy Rail



Metro

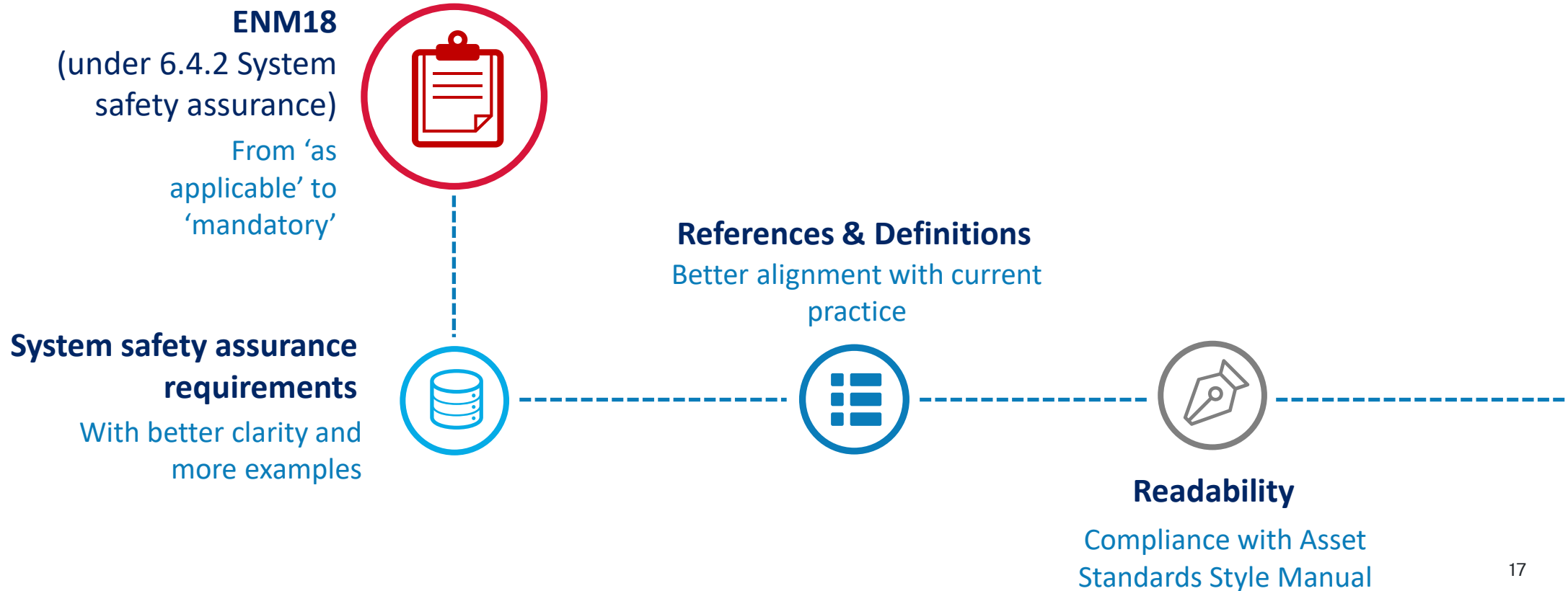


- There is a transition period for the requirement for Asset Stewards and Technical Due Diligence functions to become accredited. This will be either one year or upon contract renewal.
- During the first six months of the transition period, the details for Technical Due Diligence will be worked through within Transport. Once formalised further advice will be provided to assist with applications to become accredited.

TAO Authorisation Requirements

Minor amendments have been made to requirements and guidance

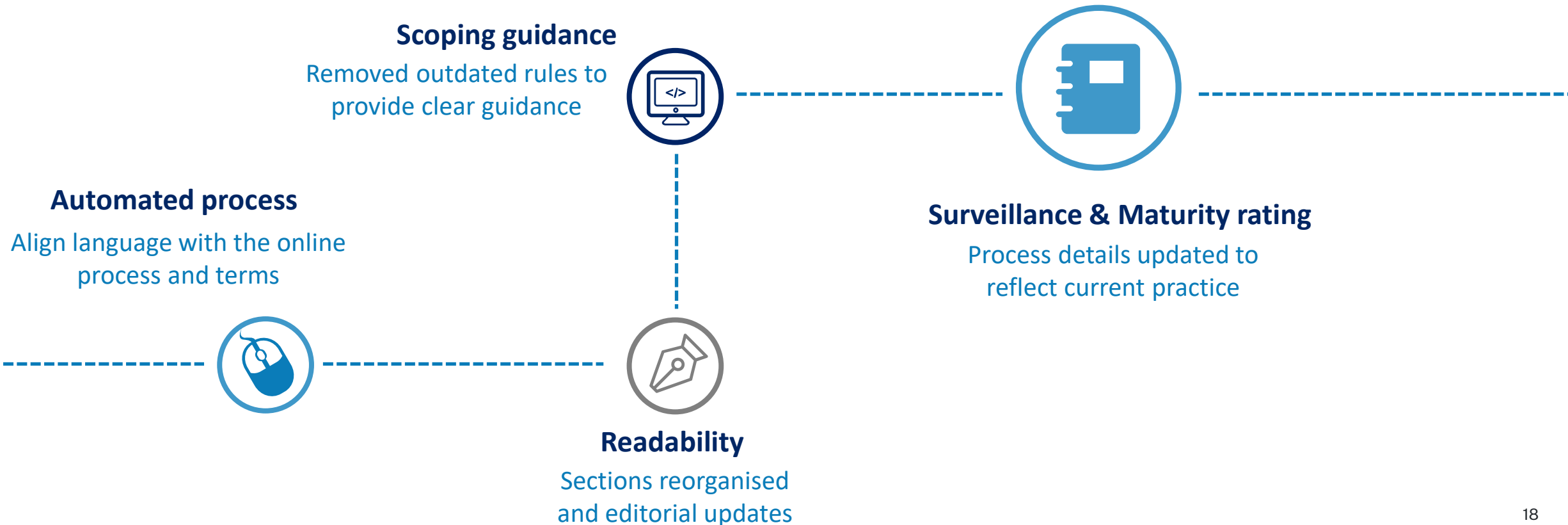
Collaboratively reviewed a total of 60 stakeholder comments



TAO Authorisation Scheme

Minor amendments have been made to the scheme document

Collaboratively reviewed a total of 94 stakeholder comments



TAO Engineering Services

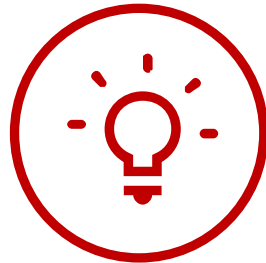
Amendments have been made to the engineering services

Collaboratively reviewed a total of 120 stakeholder comments



Physical security

Updated sub-disciplines



Signals & Control Systems

Updated sub-disciplines



Service Overlap

Removed overlaps in
Fire and Life Safety,
Building Acoustics



Enhanced Service Description

Such as Engineering Management,
Systems Assurance, ISA, Config
management and so on

TAO Engineering Services Matrix

Updates have been made in the matrix

Renamed three sub-disciplines under Signals

Separated 'Onboard systems' from 'Rolling Stock subsystems' to be a sub-discipline under Signals

		TINSW asset life cycle													
		Plan	Create/Acquire				Operate/Maintain			Dispose/Renew					
Correct as at: <XX XXX XXXX>															
<Insert TAO or contract name or title> engineering services matrix		S&S development	Concept or reference design	Design	Material procurement	Manufacturing or fabrication	Construction or installation	Subsystem integration	Testing and commissioning	Acceptance services	Plan asset maintenance	Maintain or upgrade assets	Conduct asset condition surveys	Plan decommissioning or disposal	Conduct decommissioning or disposal
Specialist engineering disciplines	Fleet Engineering	Locomotives													
		Freight vehicles													
		Heavy commuter electric multiple units or diesel multiple units													
		Rail bound infrastructure maintenance vehicles													
		Rail road vehicles													
		Trolleys and trailers													
		Light rail vehicles													
		Other rail vehicles (specify in the notes)													
		Rolling stock subsystems (specify in the notes)													
		Operational control systems													
		Safety and non-safety systems													
		Trackside systems													
		Onboard signalling supervisory systems													
		Telecommunications Engineering													
		Telecom routes and cables													
		Telecom systems													
		Supervisory control and monitoring systems													
		Telecom wired or fixed networks													
		Telecom wireless or mobile networks													
		Telecommunications facilities													
	Corridor Infrastructure and Engineering														
	Wheel and rail interface														
	Geometry and alignment														
	Components and structures														
	Roads and pavements														
	Drainage and hydrology														
	Railway surveying														
	Civil Engineering Infrastructure														
	Engineering surveying														
	Geotechnical														
	Combined services route														
	Tunnelling														
	Bridges and structures														
	Earthworks														
	Interchanges and Buildings														
	Buildings architecture														
	Buildings structure (note specific areas of specialisation if appropriate in notes)														
	Buildings services (specify in the notes)														
	Crown certification														
	Other specialist buildings expertise (specify in the notes)														
	Energy Networks and Systems														
	High voltage aerial feeders														
	High voltage cables														
	Traction substation and sectioning huts														
	Distribution substations														
	High voltage protection systems														
	Low voltage power systems and low voltage protection														
	Earthing, bonding, electrolysis, and lightning protection														
	Electrical control systems (SCADA) (specify in the notes)														
	Overhead wiring														
	Electrical network planning and modelling														

Swapped order of 'create' and 'acquire'

Updated sub-disciplines under 'Protective security - physical security' (PS1 to PS4)

When does it mean?

Change management after suite publication

Existing TAOs	Current applicants	New applicants	Companies currently working for Transport	Companies involved in procurement activities
<p>All current matrix will be re-issued with the new template by 30 March 2024.</p> <p>A mapping will be applied for TAOs that are authorised in the impacted sub-disciplines.</p> <p>No reassessment.</p>	<p>Application and assessment will continue as is on the Portal.</p> <p>Upon assessment completion, authorised areas will be published with the new template.</p>	<p>The Portal will be developed to reflect the new matrix in early 2024.</p> <p>Before that, applications involving impacted sub-disciplines will be discussed with your Authorisation Facilitator to agree on the approach.</p>	<p>The arrangements under your current contract will remain in place.</p>	<p>The current procurement process will remain in place.</p> <p>Any crossover in use of different matrices will be managed via a mapping process.</p>

TAO Scheme updates to be published on 8 December

TSA Framework	TAO Scheme Documentation Suite				
Technical Supplier Assurance Framework (TS 00018)	TAO Authorisation Requirements (TS 06197.1)	TAO Authorisation Scheme (TS 06197.2)	TAO Engineering Services (TS 06197.3)	TAO Engineering Services Matrix - Rail (TS 06197.4)	TAO Engineering Services Matrix - Maritime (TS 06197.5)

[Asset Management Branch | Transport for NSW](https://www.transport.nsw.gov.au/industry/asset-management-branch/technical-supplier-assurance-tsa-framework)

[TSA Training](#)

<https://www.transport.nsw.gov.au/industry/asset-management-branch/technical-supplier-assurance-tsa-framework>

Training is available for Transport and Industry

TAO Maturity Profile

TAO Maturity Profile Update

Available within TfNSW to assist project risk mitigation

Feedback from 2020 indicated a need for all parties in the supply chain, including TfNSW to be held to account. One initiative under this stream was to improve our approach and use of TAO maturity ratings.

This has now been developed and will be used to more effectively mitigate risks and enable conversations between suppliers and TfNSW during project delivery. It will not be used to inform procurement decisions or contract award.

All TAO maturity ratings and open action profiles will be made available within TfNSW via a power BI dashboard in mid-December 2023.

- TAO Maturity Profile – each TAO's maturity ratings compared to the industry average
- Open Action Profile – a listing of open actions to address scheme non-conformances

TAO Maturity Profile Update (cont'd)

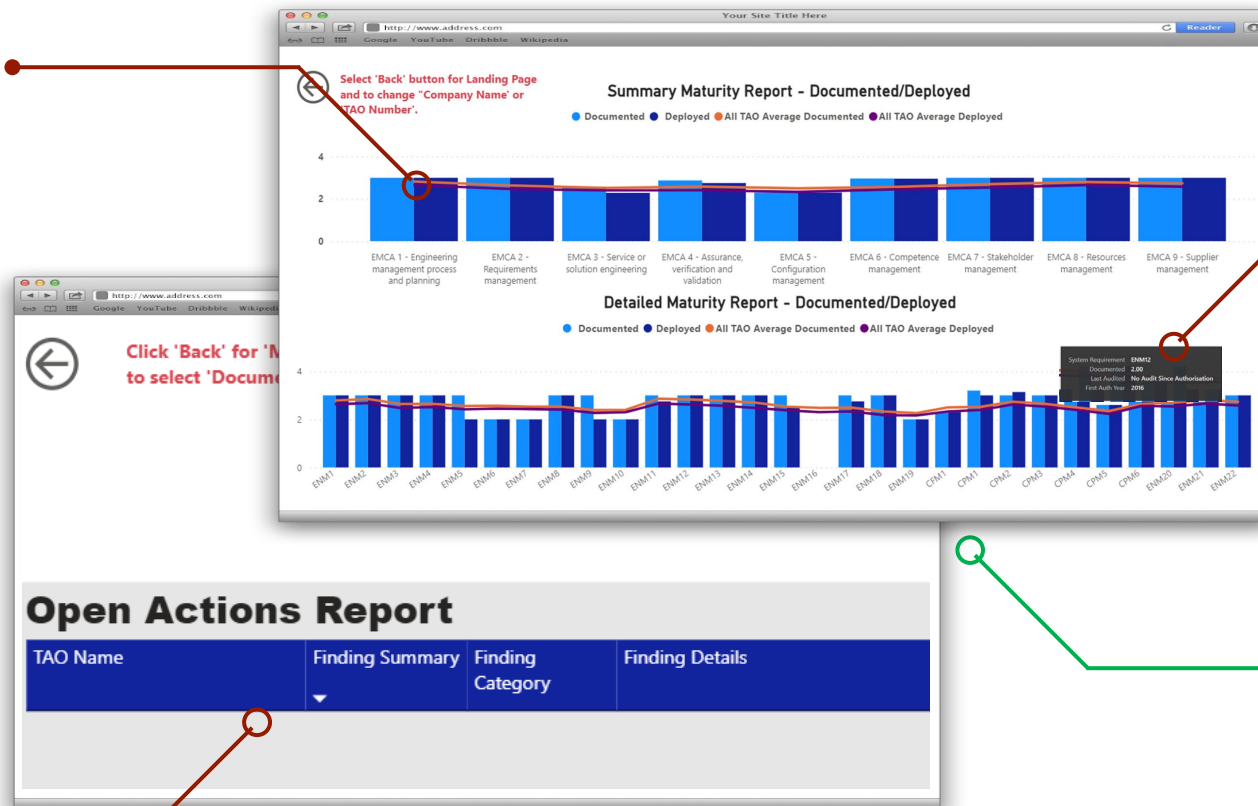
Available within TfNSW to assist project risk mitigation

Maturity ratings are compared to the Industry (All TAOs) average.

Latest audit history and outcome is available to indicate currency.

Open non-conformances are available to inform risk mitigation.

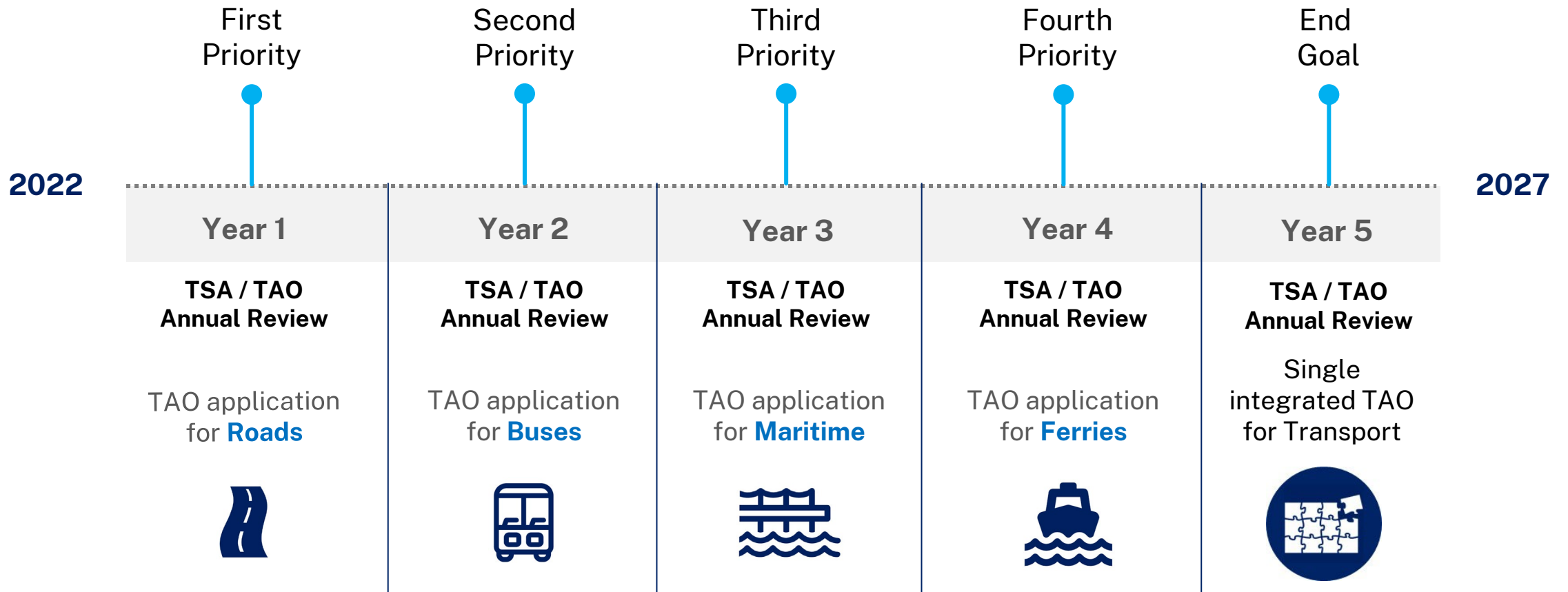
Future Plan:
To integrate with TAO performance in project delivery



Multi-modal Scheme Update

Targeting a single multi-modal scheme

Annual release to include addition of new mode each year dependant on industry feedback. Transition associated with each mode would extend across multiple years.



Progress on development of the scheme for Roads

Continuing work is focused on the pilot assessment

In 2022

- Artefacts were drafted and are currently in trial use.
- A strategy for roll out of the scheme was drafted and socialised with
 - Divisions within Transport for NSW
 - Unions
 - Industry.
- A trial/pilot assessment with Ventia as the WHT/SHT Asset Manager commenced.

Currently

- The trial/pilot assessment with Ventia continues. This trial is currently due to be completed in early-mid 2024.

Strategic Priorities

Our focus for 2024

Industry priorities for 2024

As part of our continuous improvement in 2024 we would like to focus on 3-5 strategic priorities.

We would like your feedback on what those should be.



Transport priorities for 2024

We have some continuing strategic areas for improvement in 2024

Maturity and
Performance

Systems
Integration

Consideration of
Roads

Maintenance
Enhancements

TAO
Matrix

Due
Diligence

In 2024 we will be seeking more industry feedback on the practical application of the scheme.

Q&A

Thank you