



Bruce Highway Targeted Safety Program (BHTSP)

Dennis Walsh, Chief Engineer
Allan Uhlmann, Program Director
Department of Transport and Main Roads (TMR)



Acknowledgement of Traditional Owners and Elders

I'd like to begin by acknowledging the Traditional Owners of the land where we meet today. I would also like to pay my respects to the Elders both past and present.

I also extend that respect to the Aboriginal and Torres Strait Islander people here today.



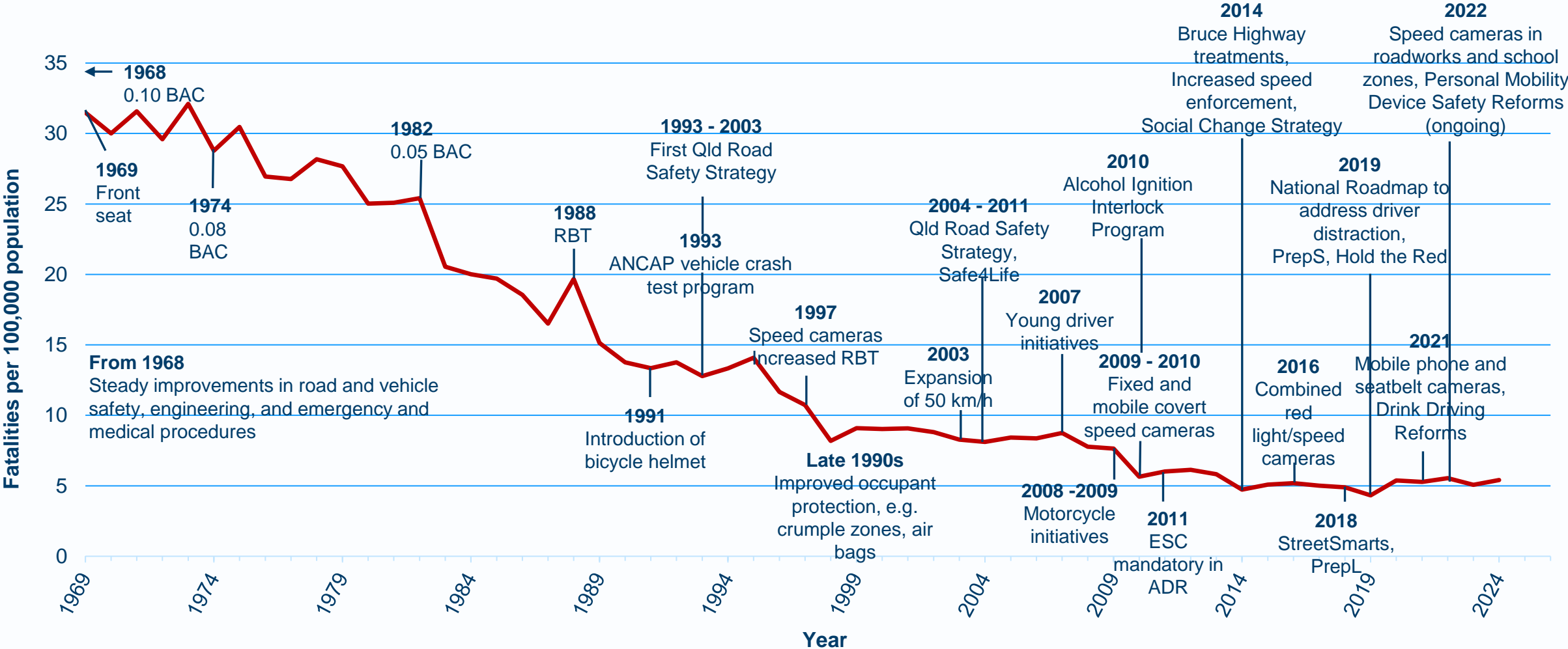
Agenda

- 1 Queensland Road Safety Overview
- 2 About the Bruce Highway
- 3 About the Bruce Highway Targeted Safety Program (BHTSP)
- 4 Approach to procurement and delivery – initial thinking
- 5 Approach to collaboration
- 6 The road ahead: What's next?

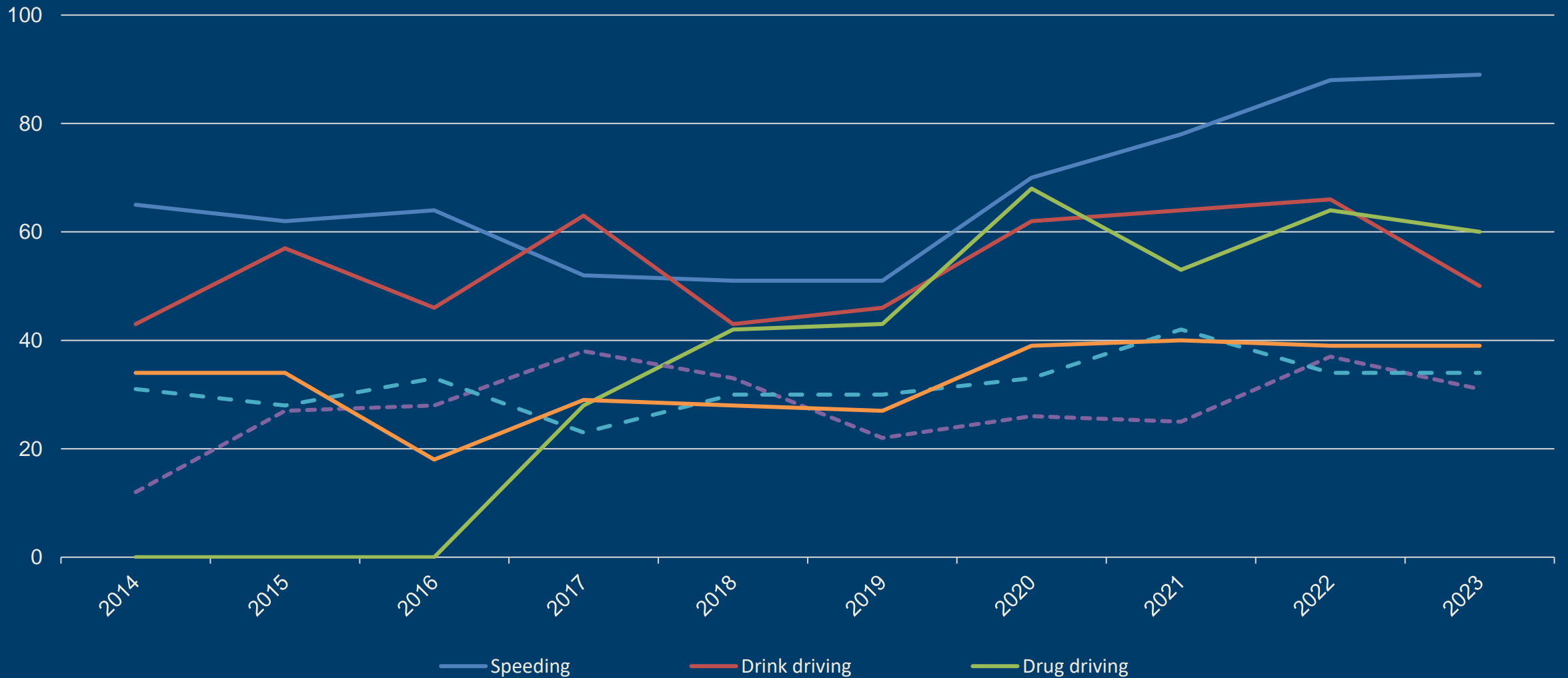
Queensland Road Safety Overview

- National/Queensland – road trauma trends and data
- Bruce Highway Safety Performance – crash data
- Overview of Star Ratings

Road fatalities per 100,000 population in Queensland: 1969–2024



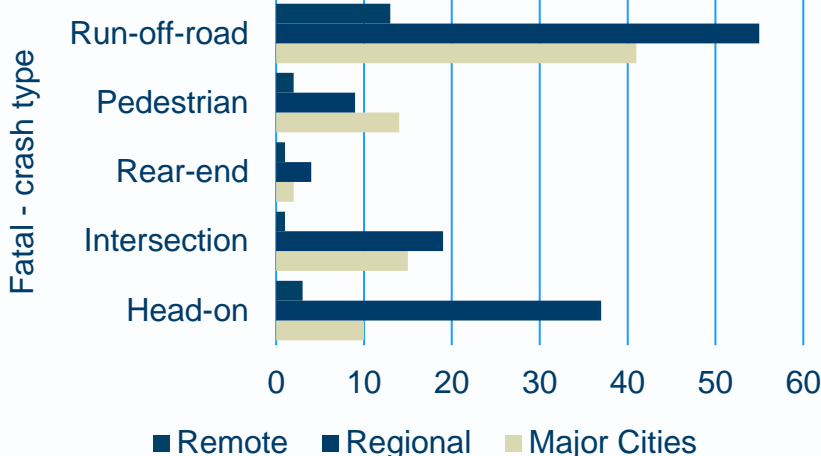
Fatalities involving behavioural contributing factors, Queensland



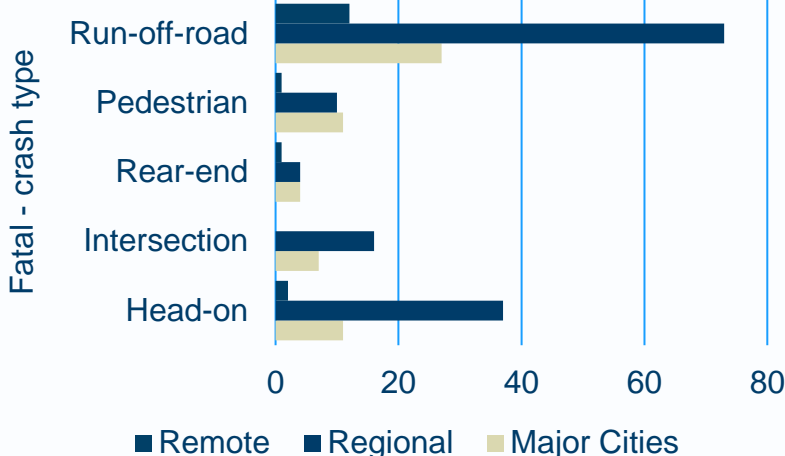
Safer Road Infrastructure

These five types of crashes account for over 80 percent of fatal crashes and two thirds of hospitalised crashes

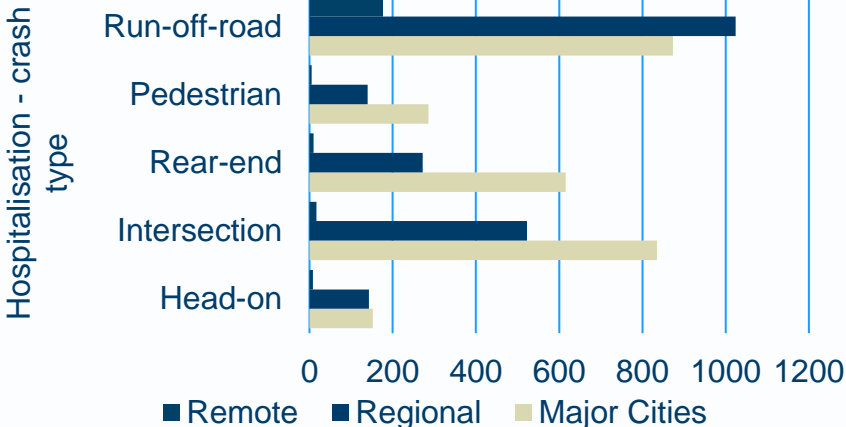
2022 Fatalities



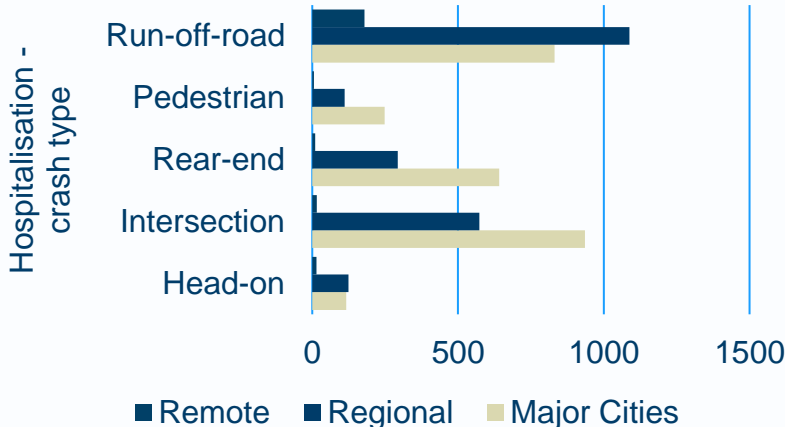
2023 Fatalities



2022 Hospitalisations



2023 Hospitalisations



Infrastructure targeting key crashes

TMR policies aligned with national requirements

Vulnerable Road Users



(run-off road) rub rail roadside barrier



(peds/bikes) appropriate speed limits in urban areas

Rural environments



(intersections) channelise right-turn lanes



(intersections) ensure sight-lines sufficient



(head-on) **wide-centre line treatment** (>4000 vehicles per day)



(head-on/ run off-road) **audio tactile lines** where shoulders > 0.5m



(all) provide stopping places and rest areas

Other



(head-on/ run off-road) Install "median" barriers on dual-lane roadways

Bruce Highway

Bruce Highway Monthly Road Crash Report

Date Extracted: 4 March 2025

Serious casualties as a result of crashes along the Bruce Highway, Brisbane to Cairns, 1 January 2015 to 28 February 2025

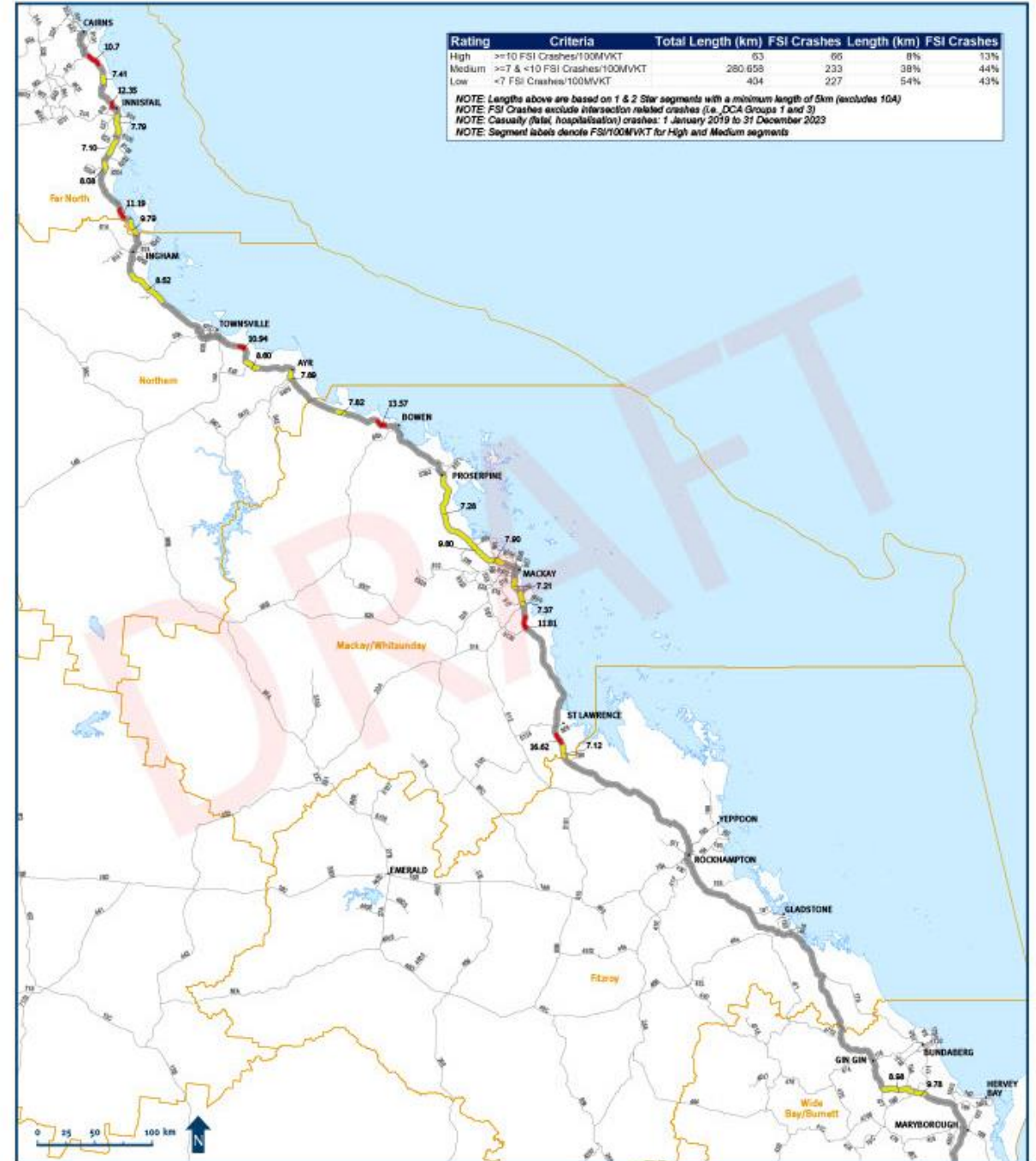
Year	State-Controlled		Bruce Highway	
	Fatalities	Hospitalised	Fatalities	Hospitalised
2015	151	3,065	29	356
2016	160	3,151	23	350
2017	146	3,107	36	455
2018	148	3,341	23	422
2019	137	3,455	22	494
2020	179	3,338	41	421
2021	167	3,843	24	498
2022	169	3,704	35	468
2023	170	3,889	30	461
2024	176	1,551#	42	177#
2025	22*	-	5*	-

* Period reported is 1 January to 28 February 2025

Period reported is 1 January to 31 May 2024

AusRAP star ratings for Bruce Highway

Bruce Highway 2019 AusRAP 2 Star Segments rated based on FSI Crashes/100MVKT



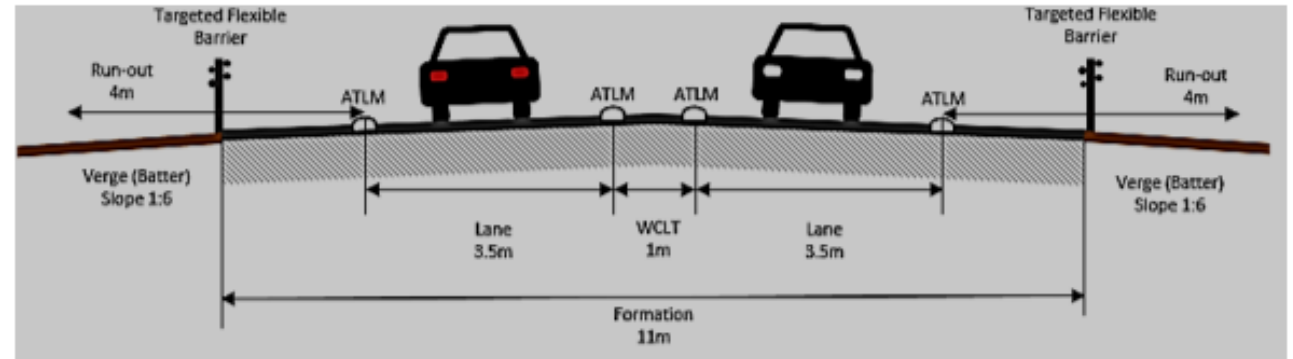
AusRAP – Star Ratings

- Bruce Highway data has been collected up until 2019
- **New data - Bruce Highway available June 2025.**

3-star Bruce Highway Pocket Guide

What is a 3-star standard?

The following cross-section is a typical 3-star standard (Austroads' [Network-wide road design](#) – *A simple yet effective process for developing sustainable network safety plans*):



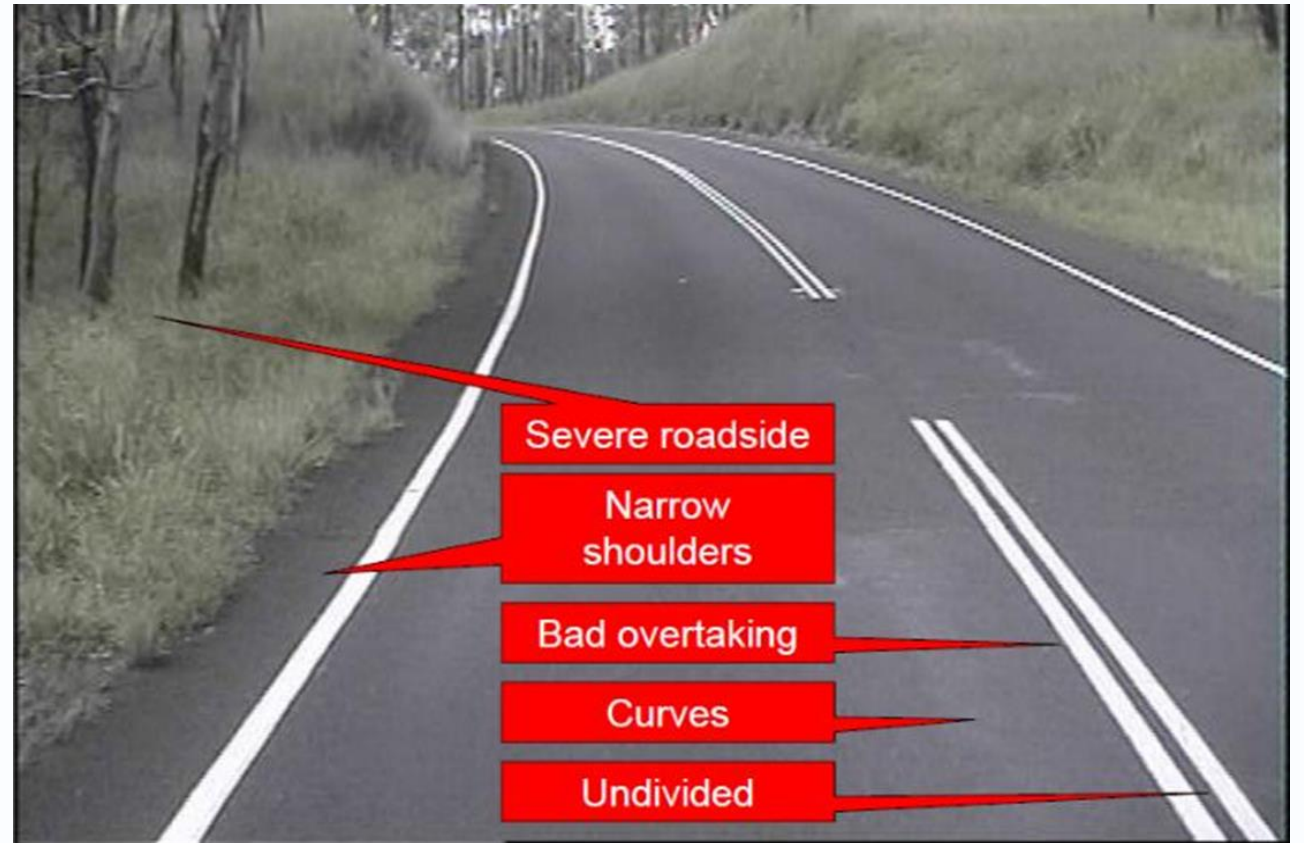
Key features include:

- 11 m formation (inc. 1m Wide Centre Line Treatment (WCLT). 1.5m sealed shoulder and 3.5m traffic lanes)
- Audio Tactile Line Markings (ATLM)
- Clearance or barrier protection from roadside objects

AusRAP key attributes – Star Ratings

Key attributes that influence ratings:

- **Traffic speeds**
- **Divided or undivided road**
- **Lane widths**
- **Road surface**
- Sealed shoulder widths
- Alignment
- Terrain
- Line marking
- Roadside hazards
- Overtaking requirements
- Intersection type and frequency
- Sight distances



Source: AusRAP

Bruce Highway



Bruce Highway Vision



Narrow shoulders
Poor roadside safety
Poor separation Limited
overtaking opportunities
No Audio tactile Line
Markings

Close to 1000km's, with around **4-7FSI/100MVKT**, current vision safety standard
(AusRAP 3 Stars)



Improved shoulders
Improved roadside
safety
Better separation
More overtaking
opportunities
Audio tactile Line
Markings
540kms rated as 2
Stars only

Bruce Highway Vision

Rural Intersections, upgrading to Channelised Right Turn Lanes, many remain (and other concerns)



Left lane blocking visibility

Improved right turn protection

A lot of direct property access

High speed environment (100)

Urban areas being bypassed but still well over 500 intersections, with large proportion of total crashes



Unprotected right turns

High number of rear ends

Pedestrian presence

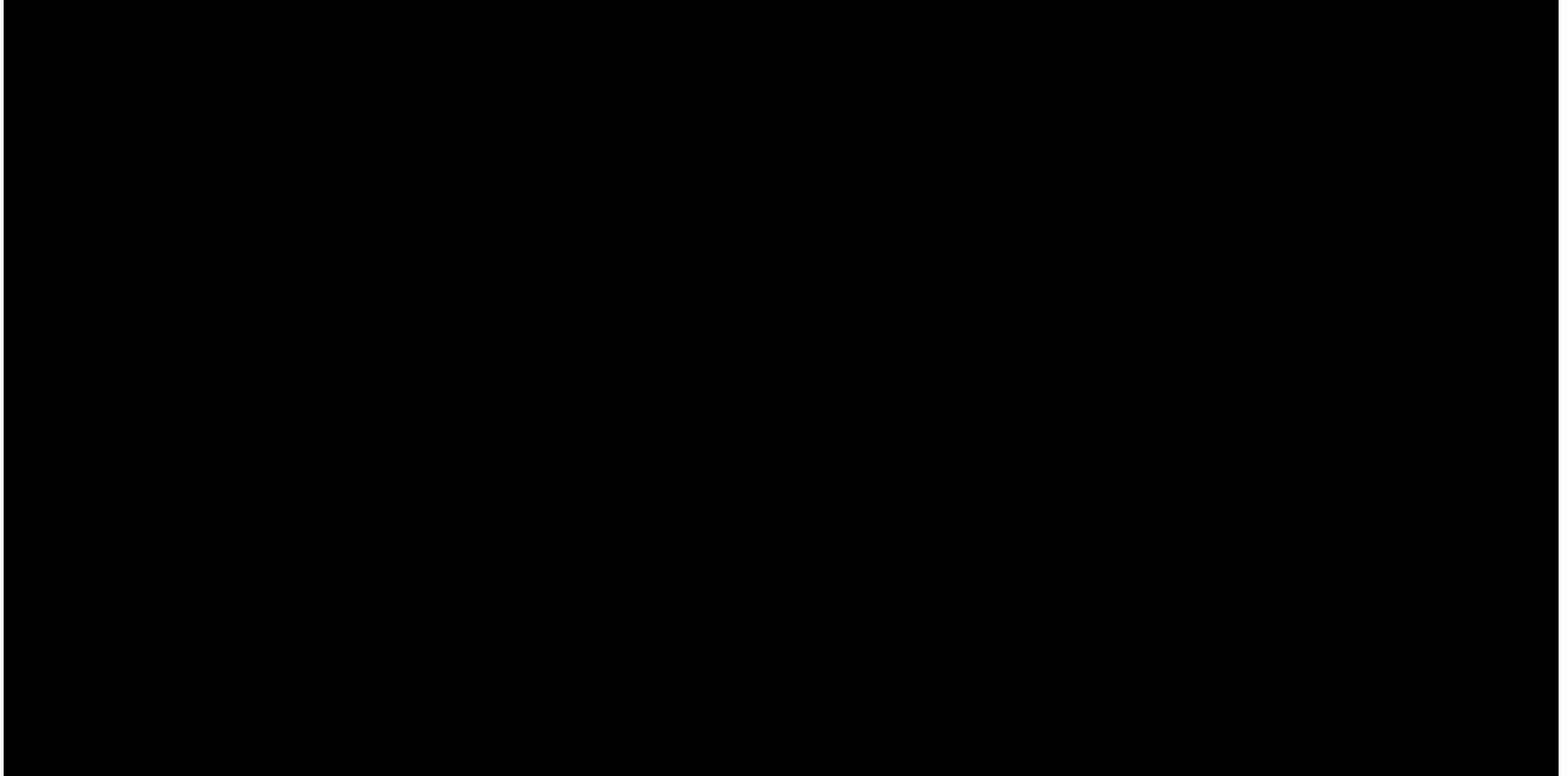
Difficulty finding gaps

High speed (60 and above)

Local mixing with heavy vehicles

Safety Standards examples

Wide Centre Line Treatment (WCLT) and Audible Tactile Line Marking (ATLM).



Safety Standards examples

Roadside Barriers – Motorcyclist underrun



Intersection Treatment examples

- Left turning on high-speed rural roads - sight lines
- Treatment may require repositioning/ channelising the left turn lanes or bringing forward the Stop/Give way lines.



About the new program

Allan Uhlmann

Program Director

Building a safer Bruce



\$9 billion for new safety works under the 80:20 joint funding arrangement (Australian Government \$7.2 billion: Queensland Government \$1.8 billion).



Accelerated delivery.



Prioritise sections with greatest safety risk to combat crashes.



Proposed work types



Wide centre line treatments, includes widening



Pavement strengthening



Overtaking lanes



Intersection upgrades

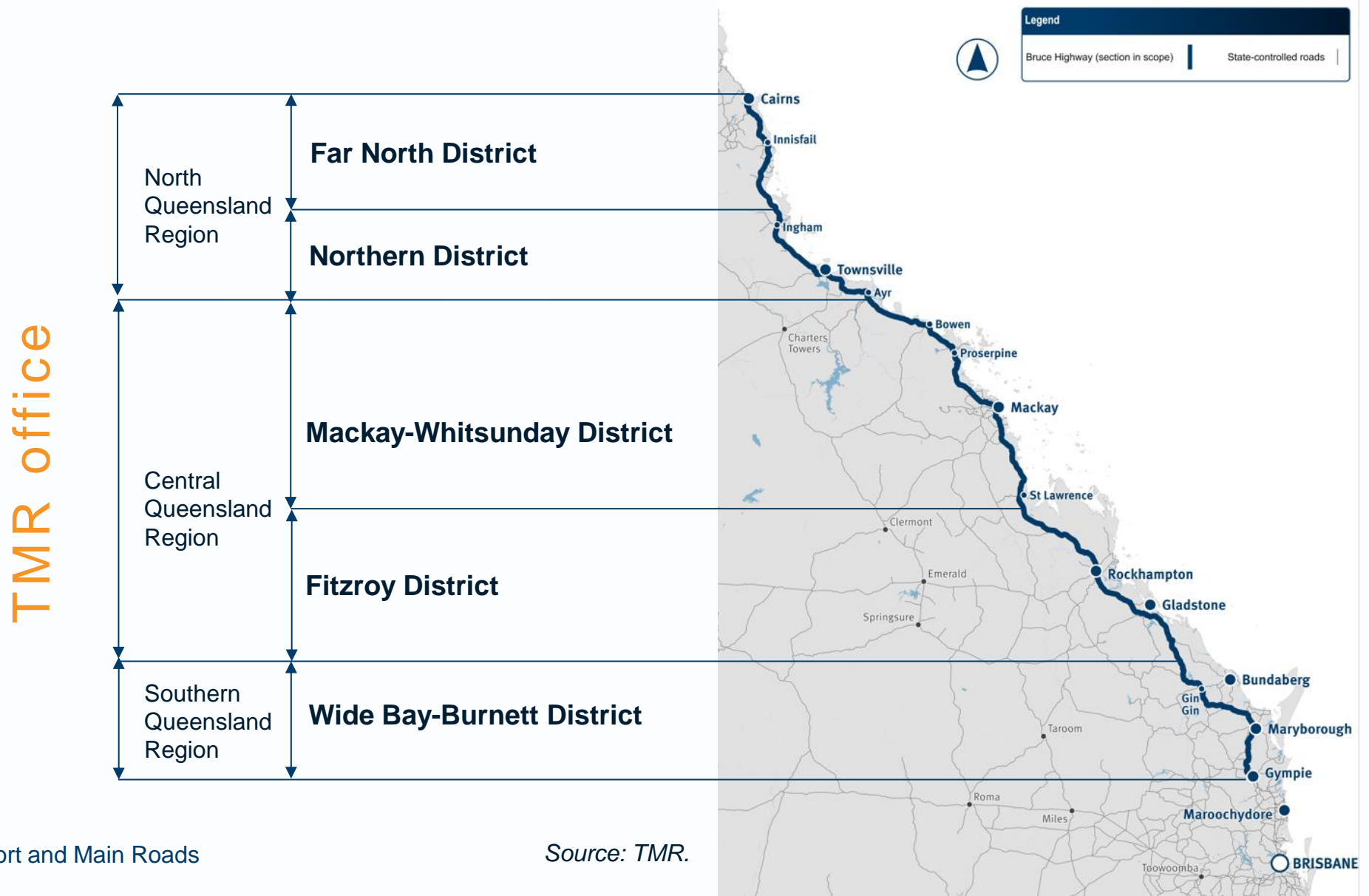


Widen narrow structures

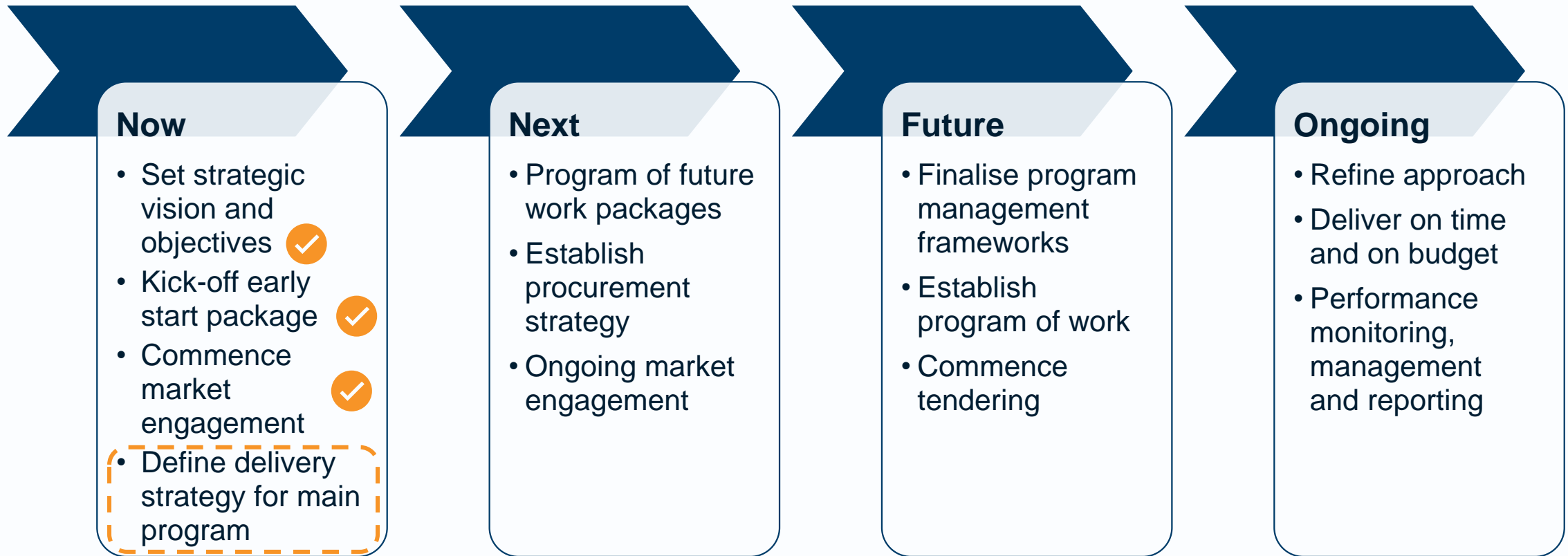


Fatigue management and rest areas

Bruce Highway – location of work



Staged approach



Early start package

Construction – \$200 million



Works have commenced



Contractors engaged through existing arrangements (not the focus of this session)

Design – \$100 million



Commence design packages



Build towards the development and delivery of the overall pipeline of works



Direct engagement of designers by TMR. Further design packages to follow.

Source: TMR.



Collaboration as standard

Turning feedback into action by implementing:

- *TMR – Infrastructure Industry Engagement Charter*
- TMR’s Collaborative Procurement and Delivery Model on BHTSP through application of the Guided Collaboration Toolkit
- Risk consultation outcomes.

Scan this QR code for a closer look at the Guided Collaboration Toolkit



Top right: *TMR – Infrastructure Industry Engagement Charter*. Source: TMR.

Bottom right: *The Collaborative Project: Guided Collaboration Toolkit*. Source: TMR.

TMR – Infrastructure Industry Engagement Charter

THE CULTURE WE COMMIT TO

Queensland has a strong and established transport civil infrastructure sector. Together, industry and the Department of Transport and Main Roads (TMR) have delivered state- and city-shaping projects that have improved our connectivity and liveability.

With a significant program of works to deliver together, including the 2032 Olympic and Paralympic Games, the need for a constructive, collaborative partnership between TMR and industry is greater than ever before.

There is an opportunity now to make significant and lasting cultural change. By working together to improve how we deliver projects, we can meet this increased demand, enable innovation and maximise the social, economic and environmental outcomes for Queensland.

This charter sets out a collaborative approach to infrastructure procurement and delivery and the behaviours everyone in our industry needs to commit to, to realise its benefits.

THIS IS US

Our purpose is to achieve positive outcomes for our communities and economy through delivering transport infrastructure safely and sustainably.

Our industry is a complex ecosystem of interconnected organisations and individuals who collaborate to deliver projects.

In our healthy and sustainable industry, our people are engaged and supported, our organisations are thriving and we can see a strong future.

We have a culture that embraces and fosters equality, diversity and inclusion.

We have a planned, resourced long-term pipeline that attracts and retains capable, diverse workforces and supports a profitable industry with the capacity to deliver safely.

We have a genuine appreciation of risk and opportunity and we innovate to drive positive outcomes.

We understand we all need to achieve positive outcomes and these can vary between government, organisations and communities.

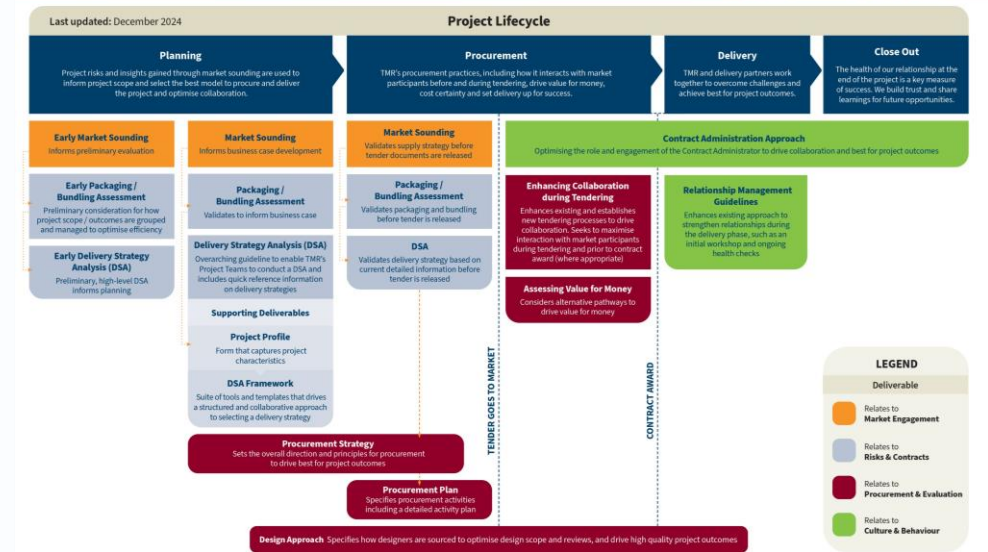
We deliver a lasting legacy with benefits for all – a win for government, a win for industry and a win for public value.

OUR EIGHT CORE COMMITMENTS

- 1 We develop and provide effective and visible leadership, empower all team members to have a voice, ensure everyone owns the outcome and actively supports each other to achieve it.
- 2 We build trust in each other by communicating openly, honestly and transparently in a timely manner, even in challenging environments, situations and relationships.
- 3 We encourage and celebrate successful collaboration, share our learnings with each other and our industry and apply them in our future work.
- 4 We listen to understand and appreciate our different business models, drivers, roles, constraints and ability to take on risk.
- 5 We provide a safe space to challenge, where healthy challenge means maintaining respect, staying solutions focussed and ensuring all feedback is listened to and acknowledged. We will help each other and act reasonably to resolve any challenges together.
- 6 We are flexible, open to change and able to compromise, with the understanding we need to be pragmatic.
- 7 We are accountable for our actions, follow through on our commitments and are proactive in raising issues as early as possible.
- 8 We actively pursue technological advancements, collect and share data and embed digital engineering to create common standards across the whole-of-life value chain.

The Collaborative Project: Guided Collaboration Toolkit

TMR aims to embed 'Collaboration as Standard' by developing and implementing a collaborative procurement and delivery strategy. Collaborative tools, including a Guided Collaboration Toolkit, will be integrated into TMR's existing infrastructure project system. The below diagram shows the high-level structure of the Guided Collaboration Toolkit.








Approach to procurement and delivery – initial thinking



What you've told us so far

We are partnering with industry to improve the way we procure and deliver transport infrastructure projects. BHTSP is an opportunity for change.

Early feedback, as part of TMR's collaborative project, has pointed to:

-  Pipeline visibility and certainty
-  Team continuity (avoiding 'eternal beginner syndrome')
-  Faster, streamlined procurement
-  Better planning and pre-procurement
-  Appropriate delivery model selection.

These insights have shaped the BHTSP delivery objectives.

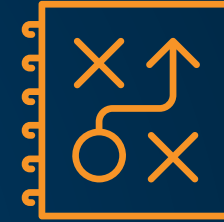
Proposed delivery objectives



Fast and efficient operation



Engage industry and feed the market



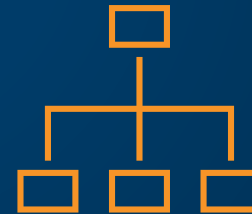
Find pathways for unsuccessful tenderers



Optimise internal and external resources



Do it once, do it right

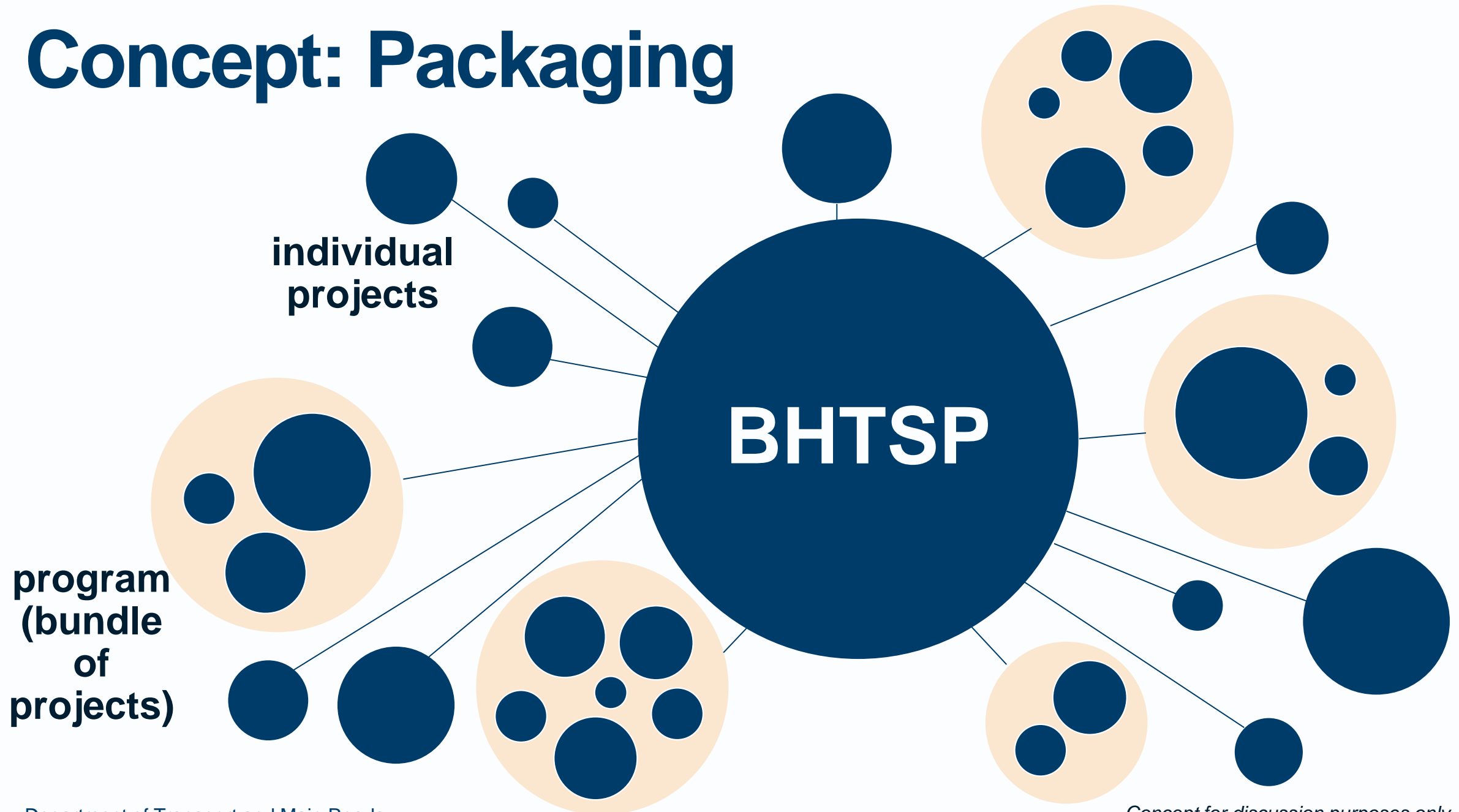


Progress over perfection, optimise over time



Share learnings to drive improvement

Concept: Packaging



Concept: Program-qualified panel arrangement



Panel/s

- Panels are being considered for:
 - contractors
 - designers.
- Panels may be categorised by project value, complexity, specialist capability and/or district
- Engaging all levels of the market
- Panel establishment via tender process for TMR pre-qualified parties
- Propose to implement standard contractual terms
- Annual refresh – open to new applicants and information required from existing members.



Other considerations

Designers

Designers may be engaged by:

- TMR or
- contractors (for design and construction).

Specialist services

Exploring opportunities to streamline engagement of specialist services, such as contract administration and project management.

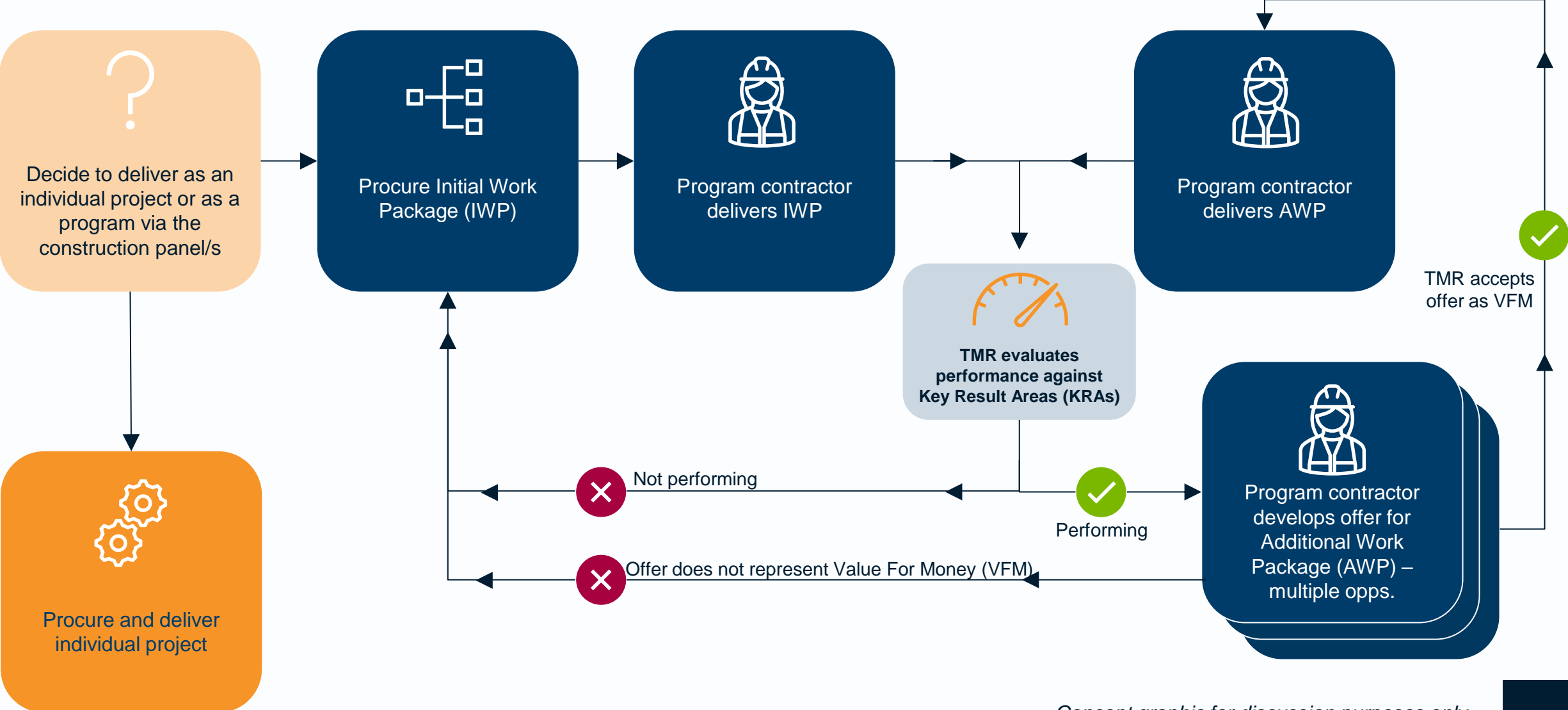
Concept: Contract models



While some amendments may be required, TMR's suite of existing contracts are considered appropriate to manage these types of works.

- Projects will be delivered as Construct Only (CO) and Design and Construct (D&C) delivery models
- Contract forms will likely be based on existing TMR contracts, which may include Transport Infrastructure Contract (TIC)-CO and TIC-Target Project Cost (TPC)
- Program contracts are likely to include initial and additional work packages, – creating visibility and certainty for contractors
- × Alliances/program alliances, Public Private Partnerships (PPPs) and managing contractor arrangements have been considered, however are not being explored at this stage

Concept: How projects are delivered



Concept graphic for discussion purposes only.

Approach to collaboration

Industry briefings outcomes



365 industry representatives attended



Diverse representation



44 questions raised and answered



Very high levels of satisfaction with briefing:

- providing informative content – 90 per cent
- opportunity to contribute feedback – 93 per cent.

Optional questionnaire

- ✓ 76 organisations responded

Key early insights

- ✓ Overwhelming support for panel arrangements – both construction and design panels
- ✓ Agreement the proposed approach will help accelerate procurement timelines and reduce tendering costs
- ✓ Readiness to contribute – capability and interest from across the market.

The road ahead: What's next?



Thank you and stay connected

www.tmr.qld.gov.au