



# *Inland Rail*

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RAIL FREIGHT FUTURES  
AUSTRALIA  
CONFERENCE

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# ***THE OPPORTUNITY OF THE FREIGHT CHALLENGE***

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PETER WINDER

Executive General Manager, Interstate  
Australian Rail Track Corporation

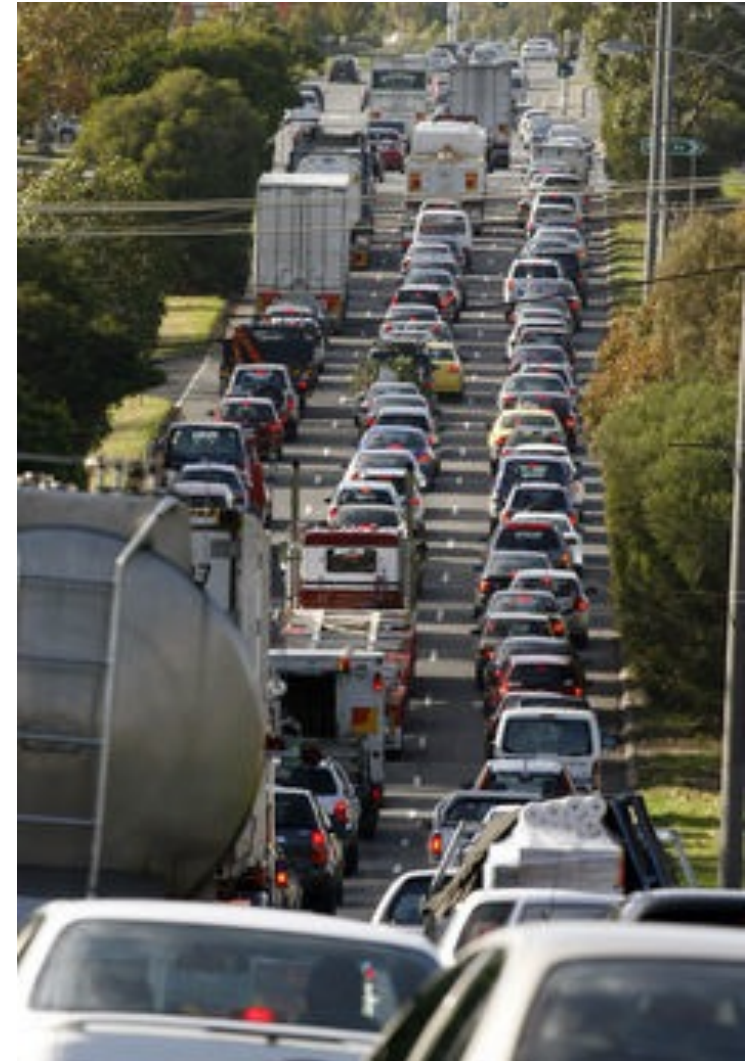
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# THE FREIGHT CHALLENGE

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- Melbourne-Brisbane is the busiest non-bulk freight corridor in Australia
- Freight volumes are expected to double by 2030 and triple by 2050
- Brisbane – Melbourne freight is slowed down by passing through Sydney
- Regional producers have limited options to get their goods to market
- Road dominates the market causing congestion and safety issues
- Rail is under-represented and has an opportunity to gain market share as well as coping with additional growth





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# MEETING THE FREIGHT CHALLENGE WITH INLAND RAIL

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- A new 1700km freight rail connection from Melbourne to Brisbane via regional NSW and QLD.
- A road-competitive rail service based on transit time, reliability and cost (<24 hours Melbourne to Brisbane)
- This will complete the backbone of Australia's freight rail network, linking five state economies
- Route from Melbourne to Brisbane will take advantage of recent enhancements to the existing network, especially in Victoria.





# ***DELIVERING INLAND RAIL***

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## THE AUSTRALIAN GOVERNMENT'S COMMITMENT

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“...this Government knows Inland Rail is a project that we absolutely have to get right and one which we need sooner, rather than later.”

Deputy Prime Minister, the Hon Warren Truss MP

12 March 2014

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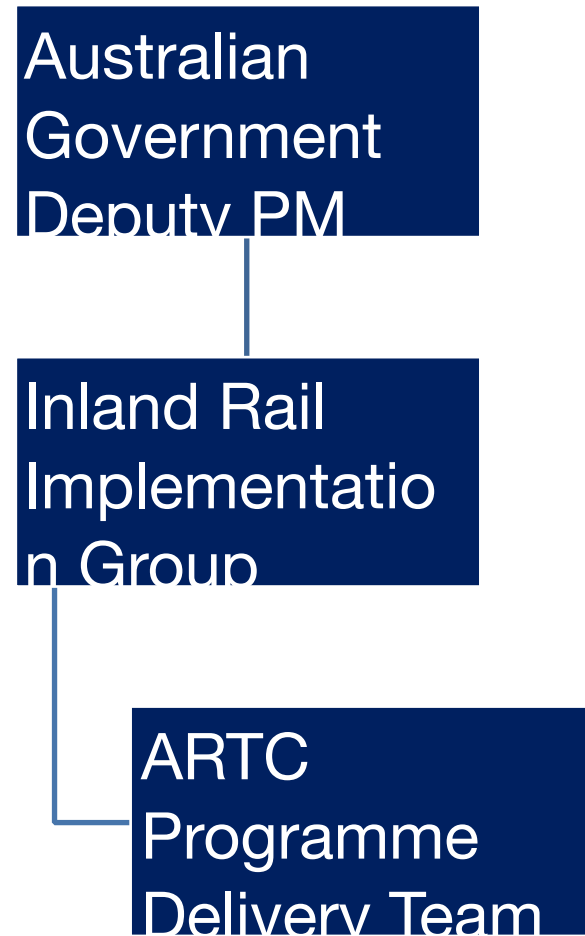
# THE AUSTRALIAN GOVERNMENT'S DIRECTION

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The Australian Government has committed \$300M and appointed ARTC to:

- Establish the project team
- Develop the 10 year program
- Progress design work and gain required approvals
- Start early works and land acquisition
- Investigate and recommend the most appropriate route for a dedicated freight rail connection to the Port of Brisbane.

This is happening under direction of the Inland Rail Implementation Group (IR-IG).





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# THE AUSTRALIAN RAIL TRACK CORPORATION

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- Established in 1998 to facilitate a national standard gauge network
- One of Australia's largest rail network owners, operating and managing more than 8,500 kilometres of rail track in New South Wales, Queensland, South Australia, Victoria and Western Australia
- 1,128 staff
- 450 trains per day on the network
- Capital investment of >\$5billion over the past 10 years
- Inland Rail is the next logical step to develop the national freight network.

## ARTC's existing rail freight network





## *THE ROUTE*

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## HOW WE DEVELOPED THE ROUTE

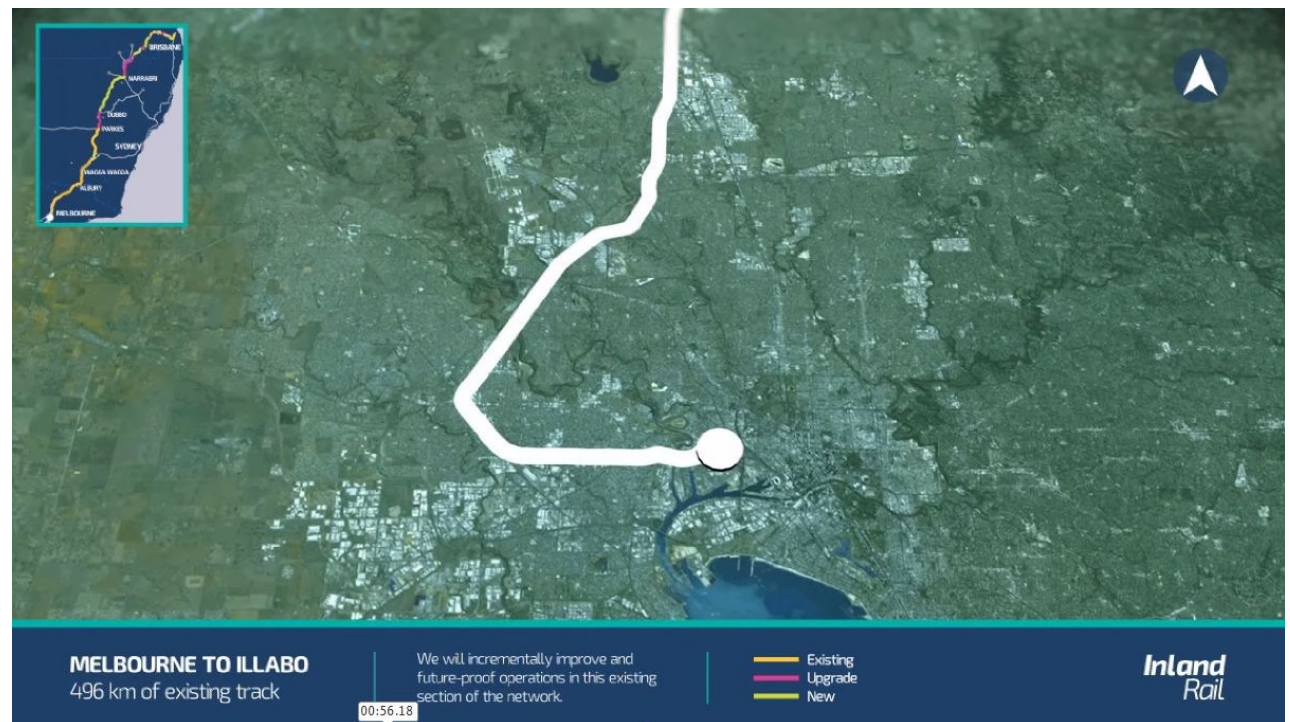
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- Extensive planning work undertaken in 2006 and then in the 2010 Inland Rail Alignment Study:
  - More than 50,000 possible combinations across the three states
  - extensive consultation with train operators and end customers
  - modelling of freight demand
- Optimum alignment determined (2010) ready to proceed to environmental assessment and engineering design.
- 2010 alignment endorsed by Australian and State Governments as the base case for Inland Rail.
- Now being optimised for performance, demand and standards to deliver a construction ready project in 2015



# THE ROUTE

- We're about to take a journey on the Inland Rail route, which was identified through the 2010 study.
- You'll notice a navigation panel in the top left that shows where we are on the overall route
- Project descriptions at the bottom of the screen change as we travel the route.



## Colour coding:

- Gold is the existing network
- Pink is a track upgrade
- Green is new track

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# TAKE THE JOURNEY WITH US



A photograph of a freight train traveling through a rural landscape. The train, led by a yellow and black locomotive with a diamond-shaped logo on its front, is moving along tracks that curve through a field of golden-brown grass. In the background, there are rolling hills covered in dense green trees under a clear sky. The image is partially framed by a teal vertical bar on the right side.

# ***DEVELOPING THE SERVICE OFFERING***

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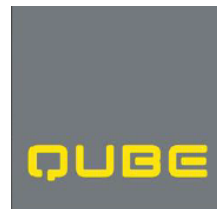


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# DEVELOPING A CUSTOMER-RELEVANT SERVICE OFFERING

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- We consult regularly with our customers and freight end users and are developing a service offering that meets their needs.



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# PERFORMANCE SPECIFICATION TO MEET CUSTOMER NEEDS

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Customers want efficiency, reliability and cost-competitiveness. This requires:

- standard gauge line (dual gauge in QLD)
- double stack
- train length of 1800m (initially)
- axle load / max speed:
  - 21 tonnes @ 115km/hr
  - 25 tonnes @ 80km/hr and
  - 30 tonnes @ 80 km/hr



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# FUTURE PROOFING INLAND RAIL

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- Train length of 3600m
- 30 TAL for new structures, sleepers and new formation
- Sleeper spacing 600mm on new track/ re-sleepering on existing
- Rail – 60kg/m on new or upgraded track
- Advanced Train Management System employs on-train GPS and broadband communications to locate and route trains in real time (An ARTC / Lockheed Martin innovation).





A long train of covered wagons is shown on the left side of the page, stretching into the distance. The wagons are covered with a light-colored material, possibly tarpaulin, and are illuminated by the warm light of a low sun, creating a golden glow. The background is a clear blue sky with a few wispy clouds near the horizon.

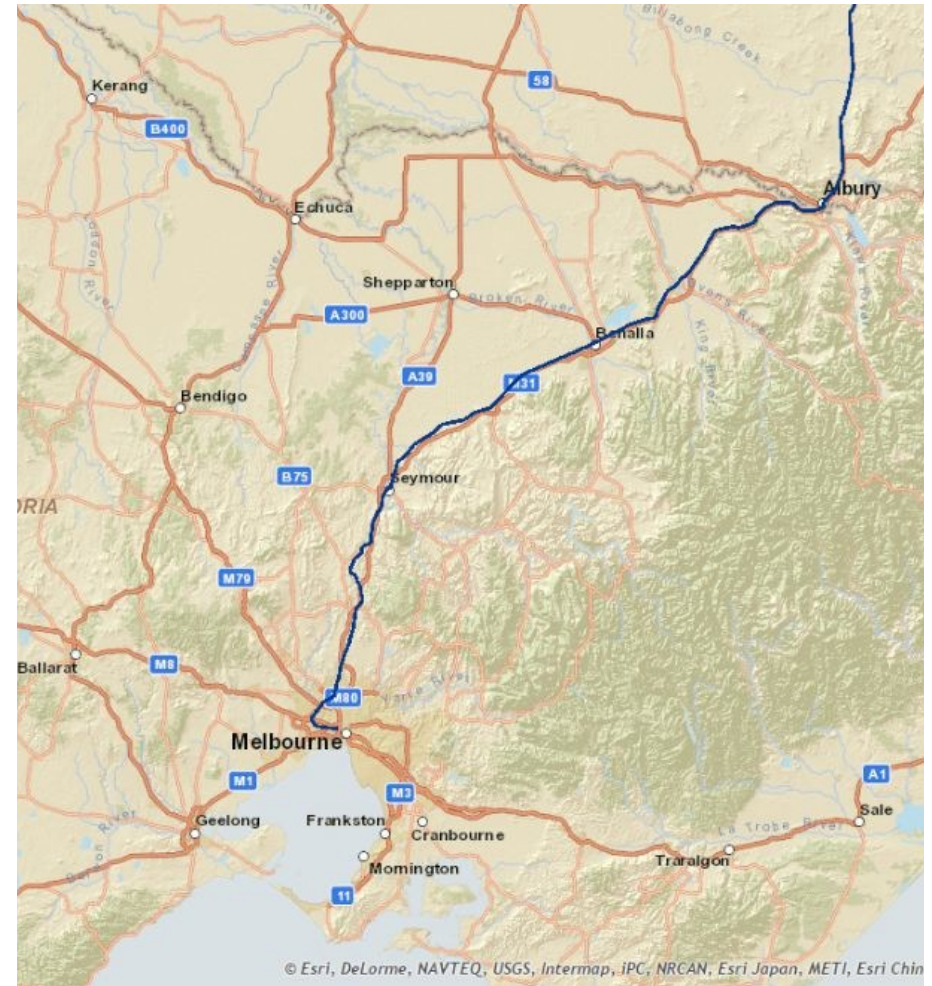
# *INLAND RAIL IN VICTORIA*

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# INLAND RAIL IN VICTORIA

- Inland Rail uses the existing interstate network from Melbourne to the border
- Validated by demand forecasting
- Enhancements required to accommodate double stacking
- Gives value for money by leveraging the significant investments in this section of the corridor to date



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# INVESTMENTS IN VICTORIA

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Investment in the interstate rail network in Victoria since 2009 has seen:

- A rail bypass and new rail station at Wodonga (and, as a result removed 11 railway level crossings from Wodonga)
- New passing lanes, crossovers and turnouts
- Re-signalling
- Replacement of dog spiked rail with continuously welded rail
- Gauge conversion
- Concrete re-sleepering of the West track
- Upgrading local level crossings,
- New platforms at Euroa, Avenel and Violet Town Stations
- Critical safety improvements to 32 rail bridges





# ***WHAT DOES DELIVERY INVOLVE?***

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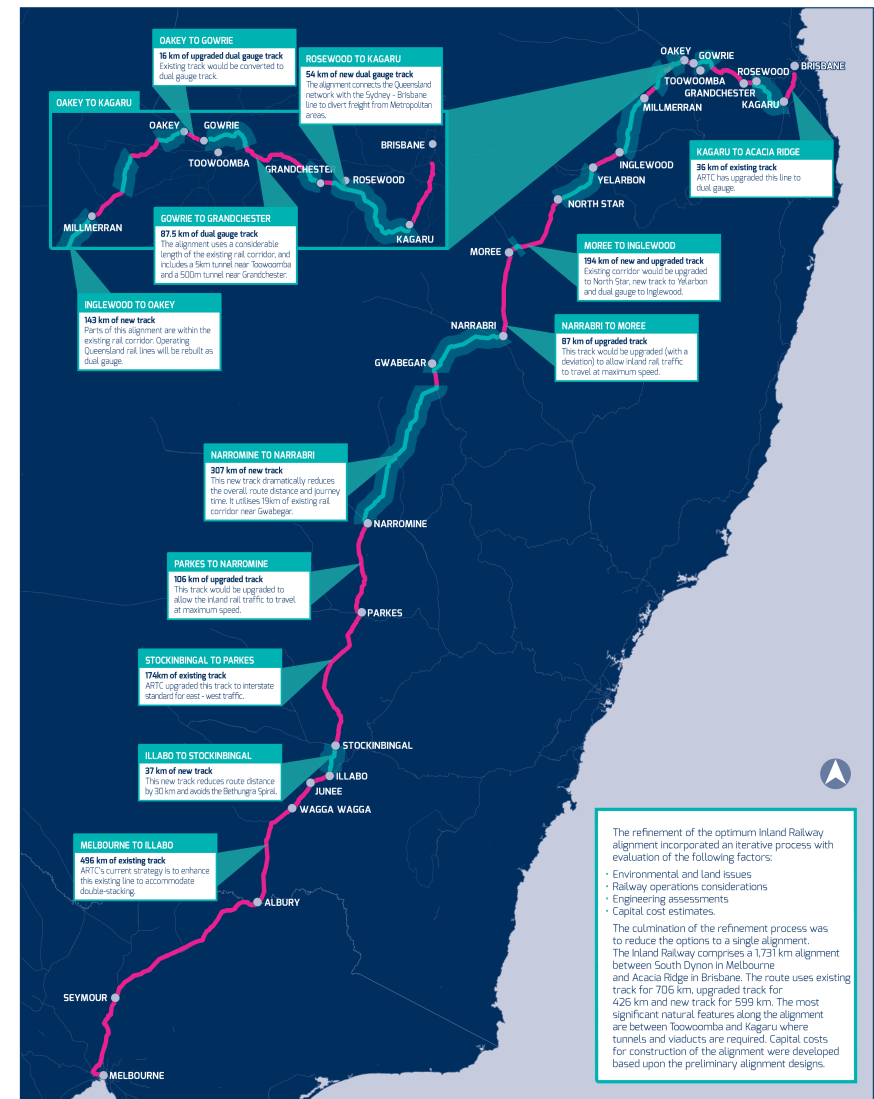
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# KEY WORK ELEMENTS

The Inland Rail alignment comprises:

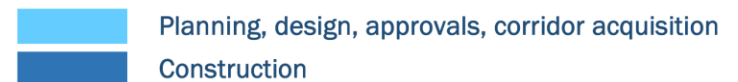
- Around 700km of existing Interstate Network (41%)
- Approximately 400km of upgrades to existing corridors, some of which are operational and some of which are moth-balled (25%)
- 600km of greenfield construction through a mix of rural, forest and semi urban areas (34%).



# INDICATIVE SCHEDULE – PREPARED APRIL 2014

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24
<b>Priority Projects</b>										
Rosewood-Kagaru <i>new corridor</i>	[Light Blue]		[Dark Blue]							
Narrabri-North Star <i>upgrade</i>	[Light Blue]	[Dark Blue]								
Parkes-Narromine <i>upgrade</i>	[Light Blue]	[Dark Blue]								
<b>North Star (NSW) - Gowrie (Qld) Missing Links</b>										
Gowrie-Rosewood <i>new corridor including Toowoomba Range tunnel</i>	[Light Blue]				[Dark Blue]					
Oakey-Gowrie <i>upgrade &amp; dual gauging</i>					[Light Blue]	[Dark Blue]				
North Star-Oakey <i>new corridor + upgrade &amp; dual gauging</i>		[Light Blue]					[Dark Blue]			
<b>Enhancement Projects</b>										
Narromine-Narrabri <i>new corridor</i>			[Light Blue]						[Dark Blue]	
Illabo-Stockinbingal <i>new corridor</i>						[Light Blue]			[Dark Blue]	
Melbourne-Illabo <i>clearance improvement for double stack operations</i>							[Light Blue]	[Dark Blue]		

Indicative - subject to change as planning proceeds



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# INLAND RAIL STATISTICS

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- 10 year program of work
- 1,731km route
- Bridges – 10.35km (122 new / 52 upgraded)
- Culverts - (371 new / 124 upgraded)
- Tunnels - 4 including 5km Toowoomba Range Crossing
- 1.72 million sleepers
- 142,000 tonnes of steel
- 2,367km of rail







# ***PRIORITY PROJECTS***

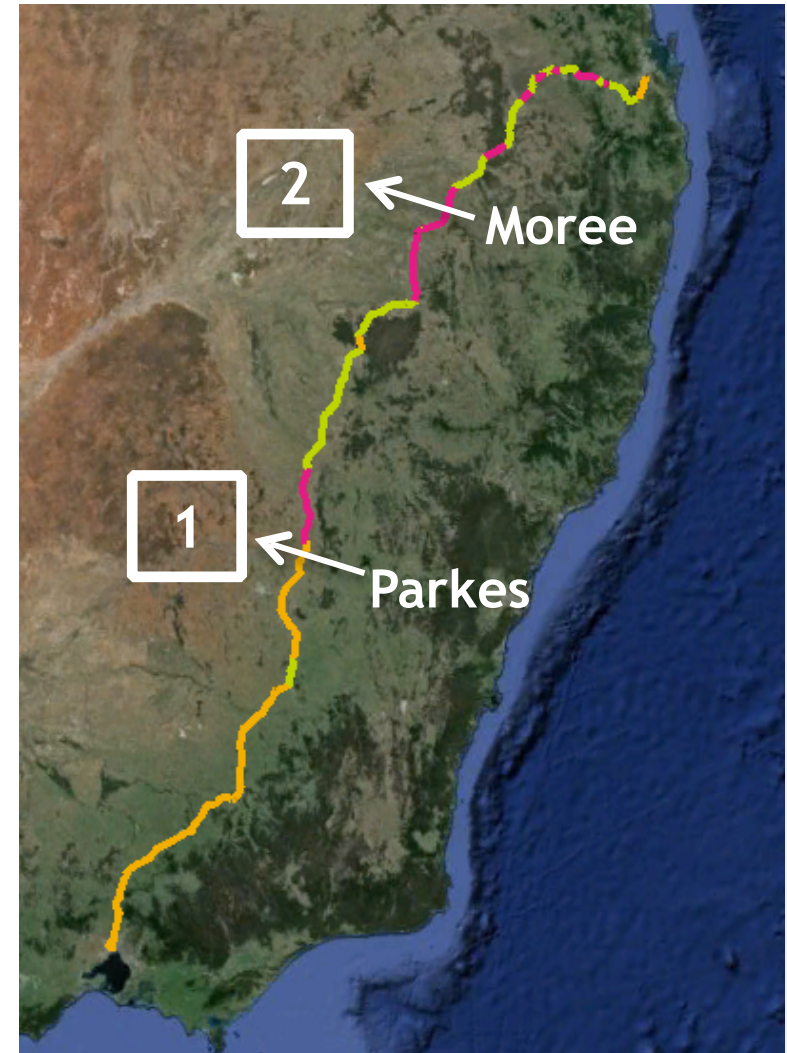
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## PRIORITY PROJECTS NSW

- Parkes to Narromine – 106km
- Narrabri to North Star - 183km
- Existing corridor track upgrades
  - flood protection
  - passing loops and sidings
  - bridges, culverts and level crossings
- Currently conducting preliminary environmental, cultural heritage, flooding and geotech.



# PRIORITY PROJECTS QUEENSLAND

## Rosewood to Kagaru

- 54 km greenfield
- connects the QLD network with the Interstate Network
- gazetted by QLD Govt.

## Gowrie to Grandchester

- 88km greenfield /existing
- includes Toowoomba Range Tunnel – 5km.
- scoping underway for tunnel specification, environmental risk assessment, engineering, schedule and costing.





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# PORT OF BRISBANE AND TERMINALS

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Two additional aspects to maximise economic benefits of Inland Rail:

- ARTC tasked to identify the most appropriate dedicated freight route to the Port of Brisbane
- Collaborating with Port of Brisbane on investigating several broad alignments
- Reviewing current intermodal terminal's ability to handle future volume
- Reviewing likely need for additional terminal capacity from potential new 'greenfield' sites.







# *PROGRESS TO DATE AND NEXT STEPS*

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# MILESTONES

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Since March, ARTC's Inland Rail Programme team has achieved the following milestones:

Milestone 1 – July 2014 - completed

- Establish the project team and develop the strategy and project management plan for the programme.

Milestone 2 – September 2014 - completed

- Begin working through the stakeholder and environmental assessment requirements, develop a recommended approach to approvals and land acquisition.

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## IN ADDITION

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- Project Management Office established in Sydney with a blended team and additional staff in Newcastle, Brisbane, Melbourne, Adelaide and Wagga Wagga.
- Regional roadshows conducted in June with more planned
- Industry Information Sessions held in September to start engagement with potential suppliers
- Key stakeholder reference group forums in May and October with the Australian Government to gain input on service offering from customers and industry.

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# WHAT'S HAPPENING NEXT

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## Milestone 3 – December 2014

- Deliver updated cost estimates and 10-year delivery and construction plan
- Commence environmental assessments, detailed engineering & geotechnical investigations in consultation with stakeholders.



A long train of covered wagons is shown in the lower left portion of the image, stretching into the distance. The wagons are covered with a light-colored material, possibly tarpaulin, and are on a railway track. The sky is a clear, bright blue, suggesting a clear day.

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THANK YOU

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