



*Inquiry into the Integration of  
Regional Rail and Road  
Freight Transport and their  
interface with Ports.*

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ARTC's role and objectives

Performance on the East - West Network

ARTC's Challenges on the Interstate Network

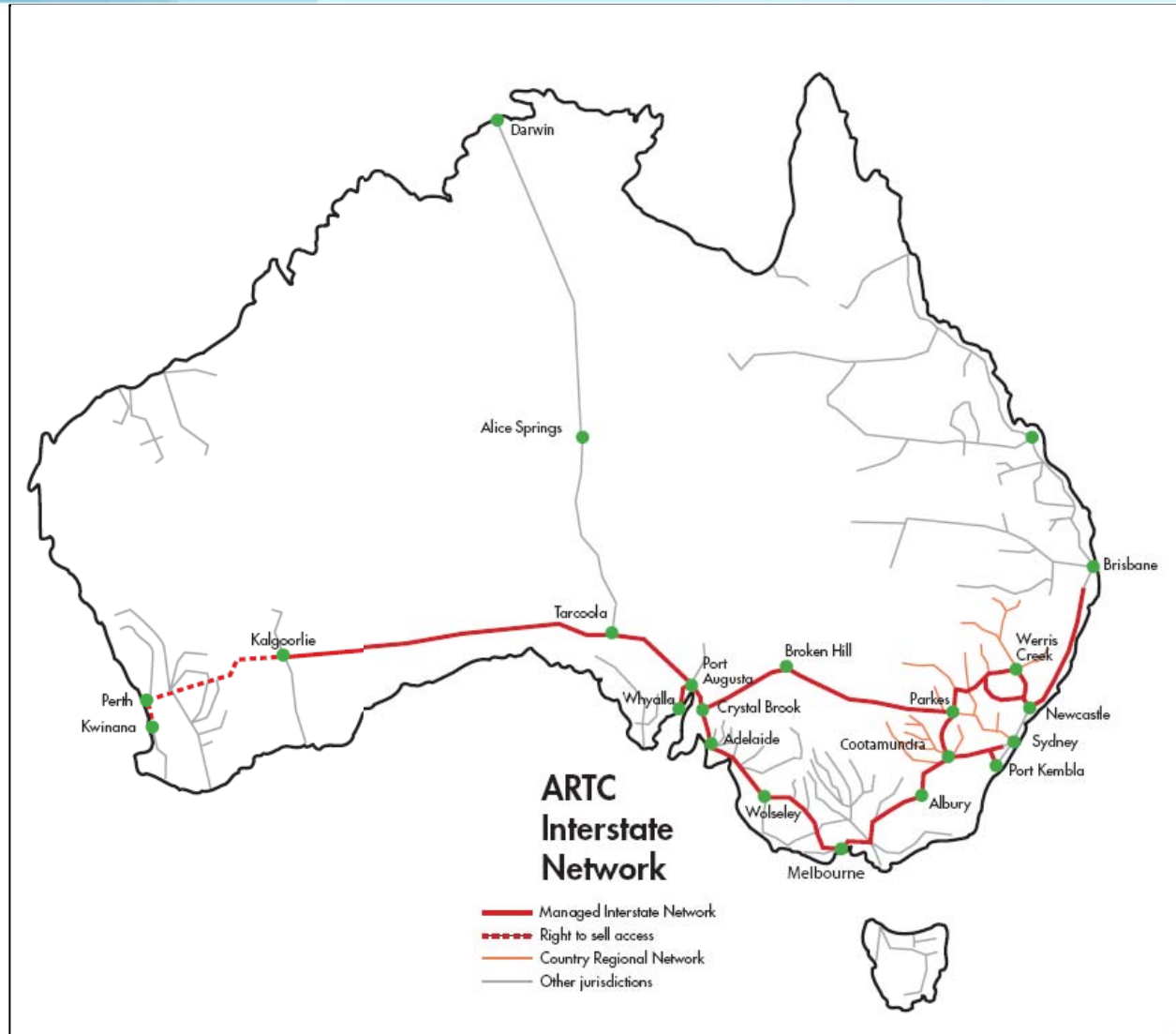
Key Regional Bulk Freight Flows on the ARTC Network

Export Grain - Regional grain branchline networks

Export Coal - Hunter Valley coal supply chain

Other Issues

## ARTC Network



-Commenced operations in 1998 pursuant to Inter-Governmental Agreement

-Own and manage Commonwealth interstate network in SA and WA

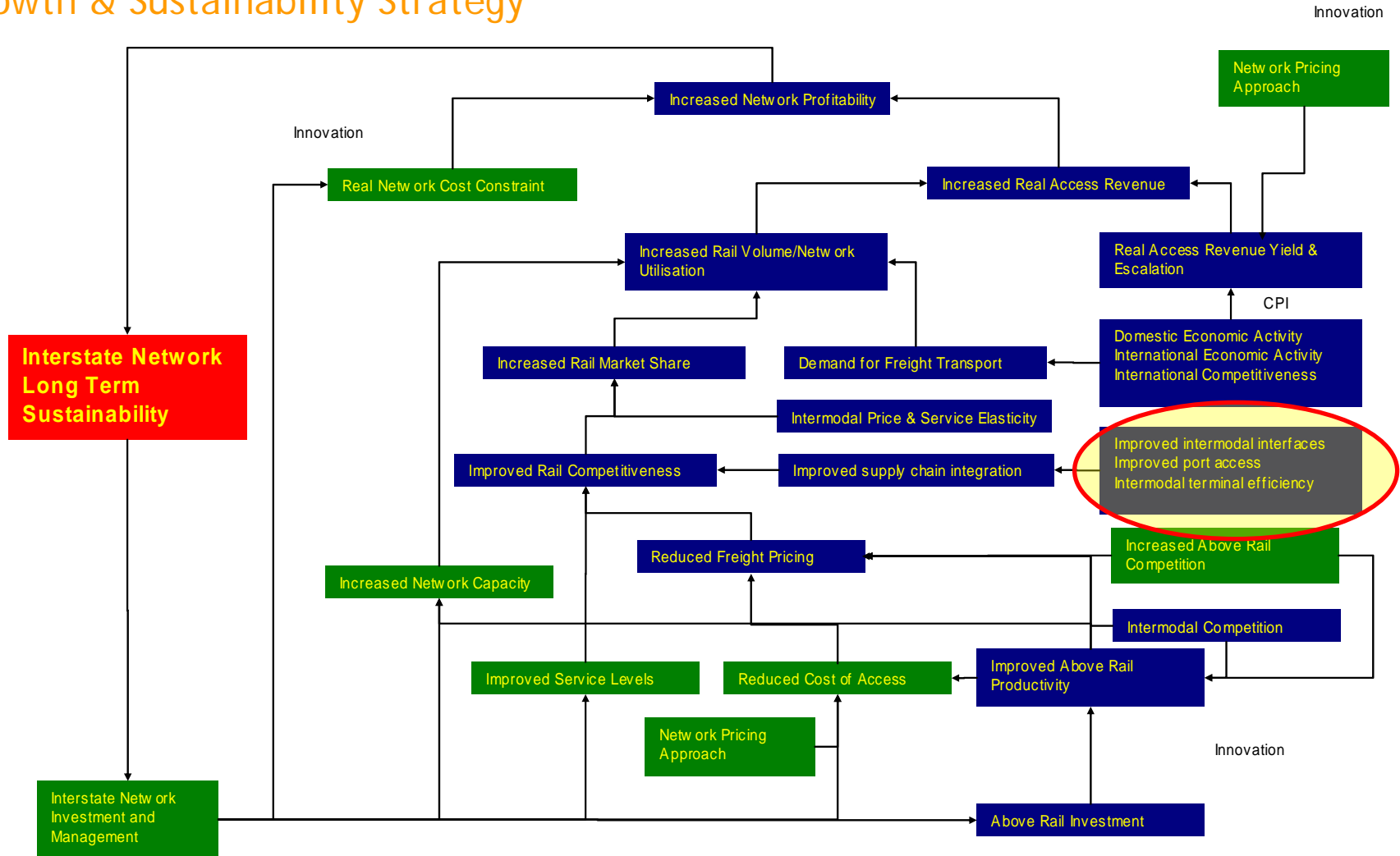
-Lease interstate network in Victoria and NSW

-Lease Tarcoola - Alice Springs to Asia Pacific Transport

-ARTC Objectives

- provide efficient and seamless access to the interstate rail network
- improve interstate rail infrastructure through better asset management
- pursue a growth strategy for interstate rail through improved efficiency and competitiveness
- promote operational efficiency and uniformity of operating, technical and safety standards and practices on the interstate rail network
- operate the business on commercially sound principles

## Growth & Sustainability Strategy



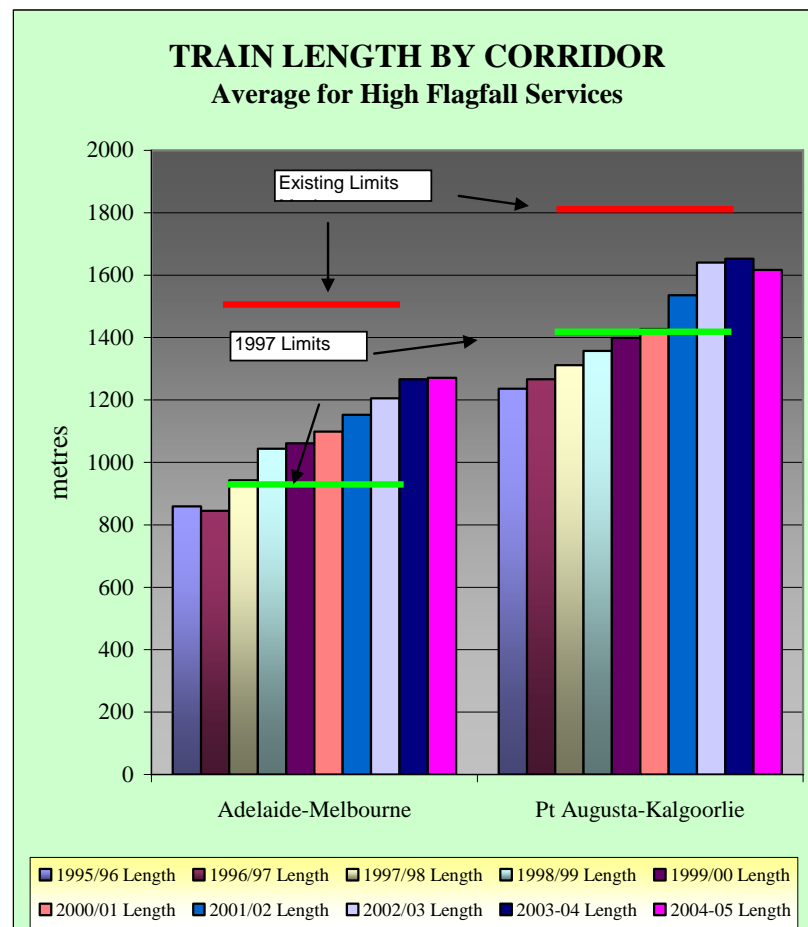
## ARTC has promoted improved operational efficiency and rail competitiveness on the interstate network

- Operators have improved path utilisation by increasing train lengths and weights towards increased operational limits made available to them

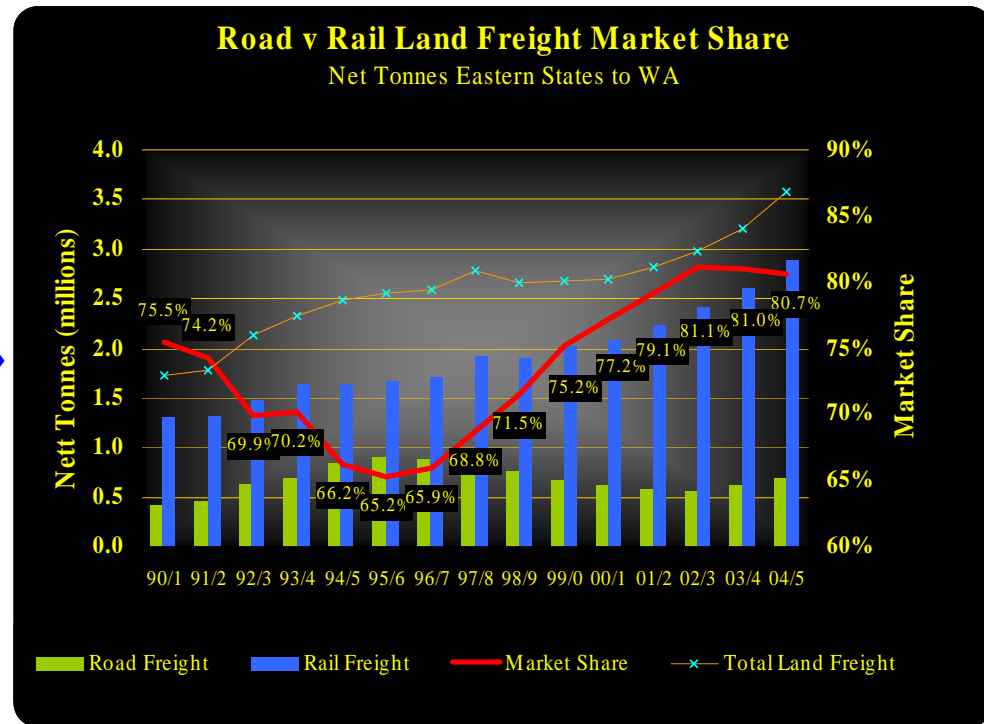
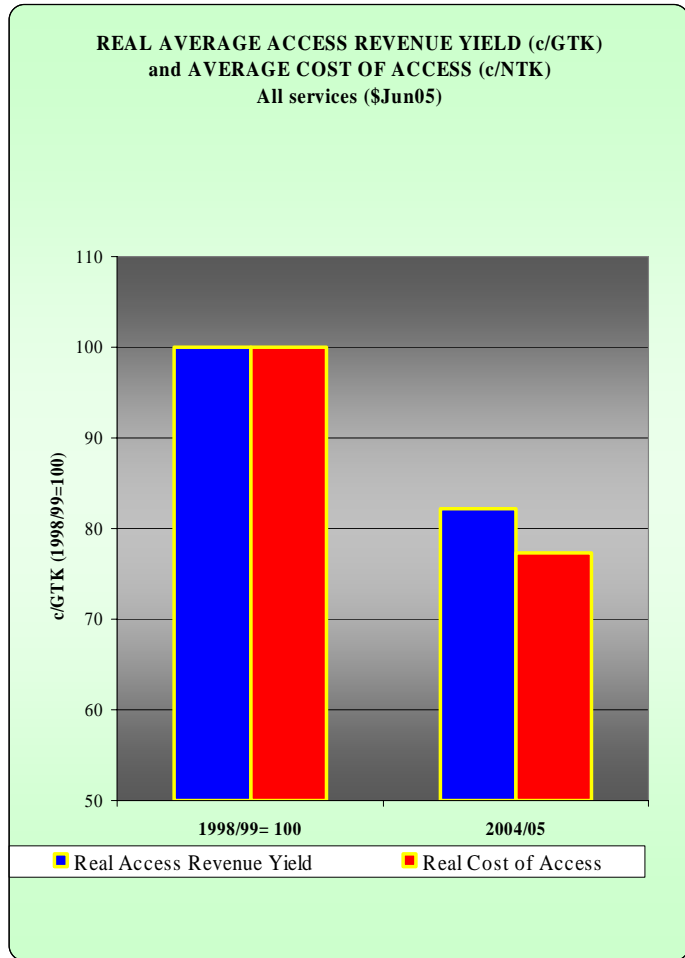
- Melbourne - Perth transit times have reduced by around 2 ½ hours

- Average speeds have increased resulting in improved fuel efficiency, reduced labour and improved asset turnaround

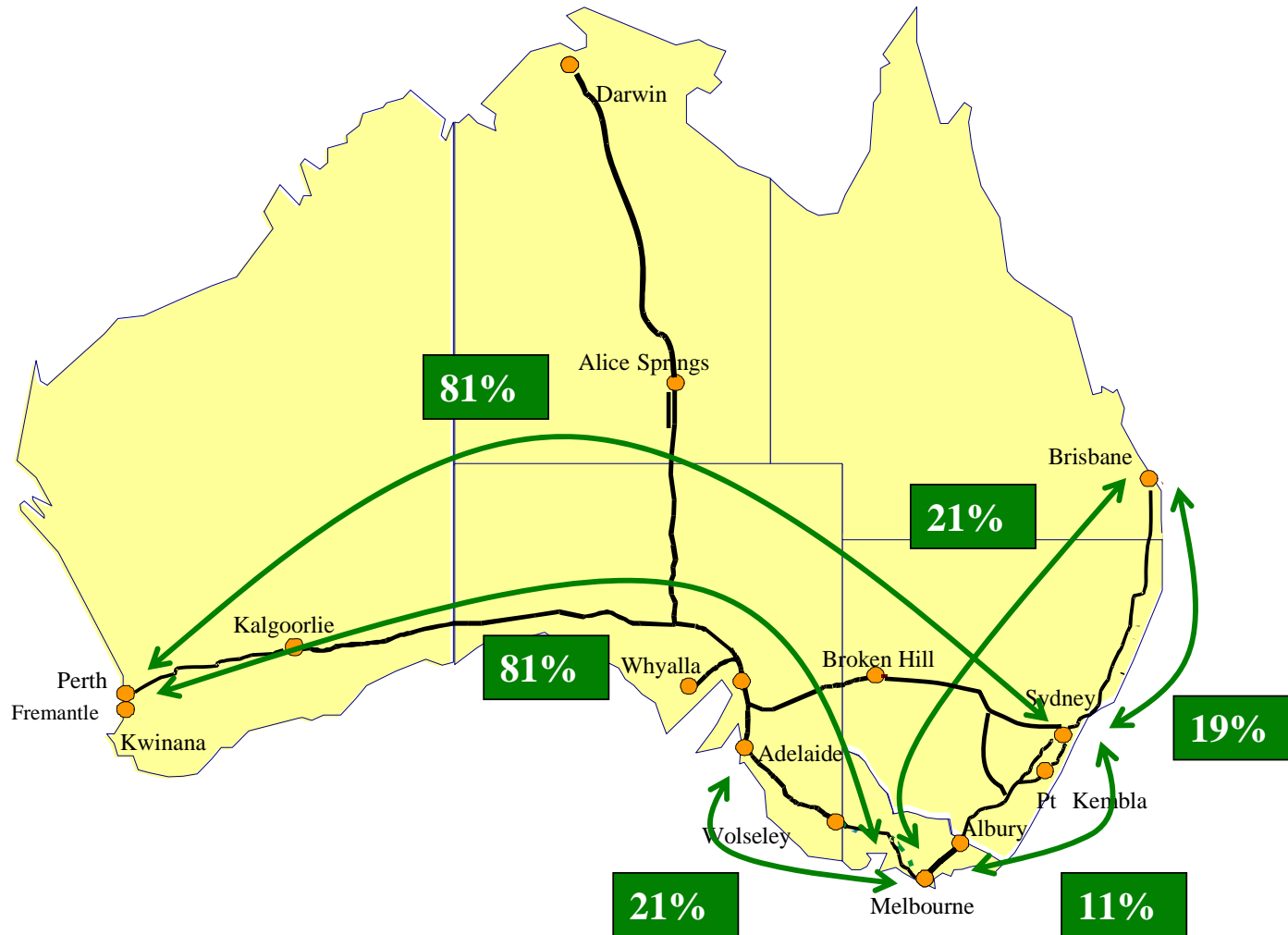
- As a result of improved path utilisation, the real cost of access (c/NTK) has reduced by 22% over the past 5 years. (12% nominal)



ARTC has promoted improved operational efficiency and rail competitiveness on the interstate network ... which has contributed to increased rail market share



## Rail market share of interstate intermodal markets





## 'Getting the investment right on North - South corridors'

- Consult and iterate with customers
- Establish best benefits for investments
- Complimentary above-rail investment

## 'Getting a single currency and transaction base'

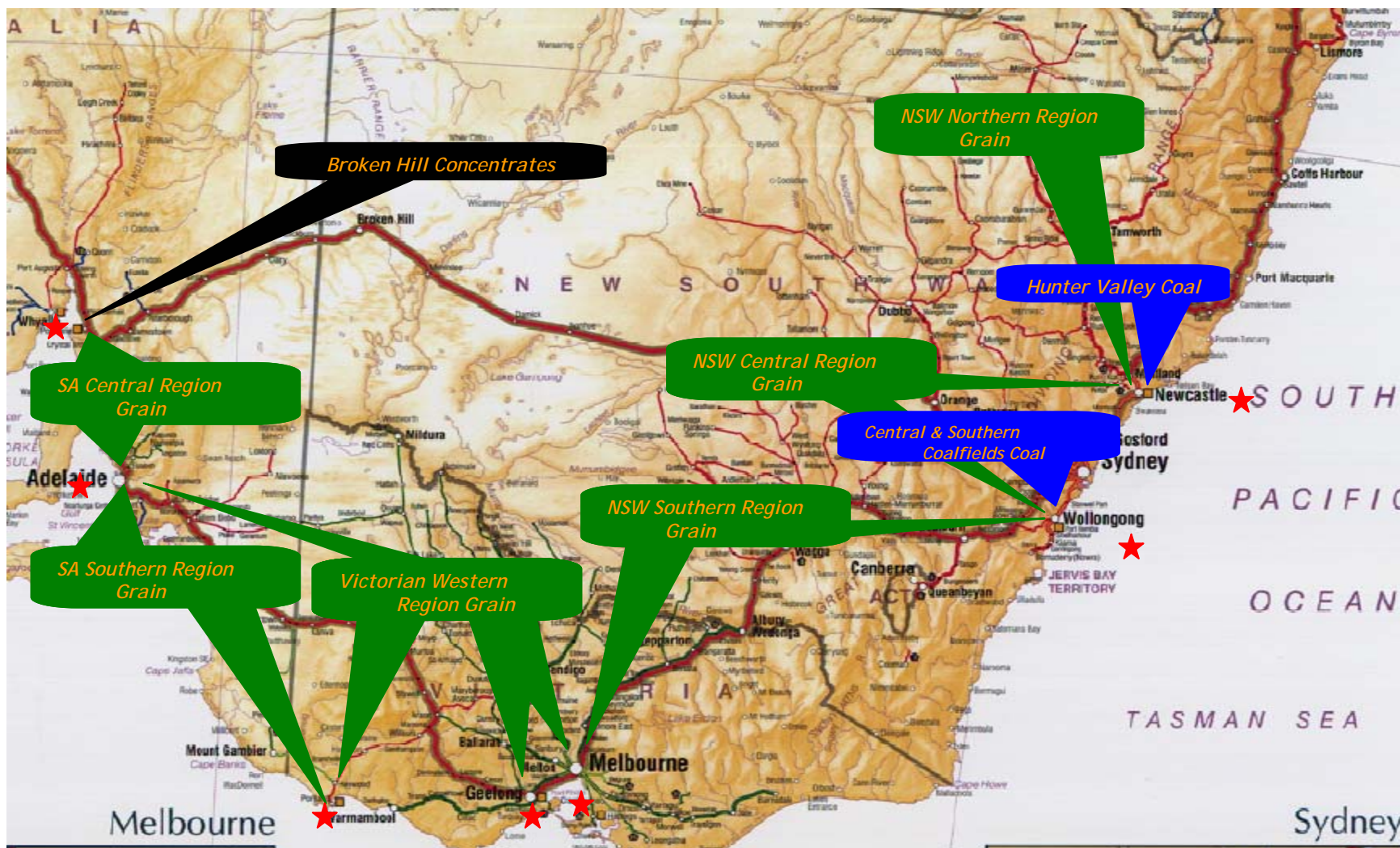
- Gain standard access agreements and terms
- Gain common Codes of Practice for safeworking
- Gain engineering standards on a code of practice across the network

## 'Improving intermodal interfaces'

- Rail access to ports
- Intermodal terminal capacity and efficiency
- Information transfer

The development and improvement of regional freight transfer to ports share similar challenges

# Key Regional Bulk Export Freight Flows on the ARTC Network ....



## Regional grain rail networks

- Vertically integrated and privatised in SA, Victoria and WA
- Vertical separation of regional grain infrastructure and privatisation of contestable rail operations in NSW.
- In most states, branchline infrastructure is in poor condition and deteriorating further.
- This has resulted from a number of historic and economic realities including:
  - Historical under-investment in the network
  - Low and seasonal volumes on many lines is insufficient to sustain economic return
  - Lack of road and rail infrastructure pricing transparency and equity
  - Historic balance of economic regulation is towards efficiency rather than sustainability

### Inherited maintenance deficit

- 'Catch 22' situation - rehabilitation cost is well above that which could achieve a viable return; this has arisen from past deterioration of condition and service levels.
- Cannot be addressed by current private owners requiring a return.
- Governments need to intervene - correct the acquired deficit or recognise a transfer to road.
- May be necessary to recognise some low volume, old lines need to be rationalised - look to more efficient means of transfer (truck, efficient silo capacity near more economic lines).

### Unsustainable economic returns

- Due to low volume and variability, achievable pricing is simply insufficient to sustain rail operations given the costs involved.
- A lack of private investment is not surprising given previous government under-investment

### Lack of infrastructure pricing transparency and equity

- Failure to properly price road places rail at a market disadvantage.
- Cost of road and road transfer is masked in this false economic effect.

### Historic balance of economic regulation is towards efficiency rather than sustainability

- Regulatory practice has focussed more-so on delivering efficient service provision (and low end user cost) than on investment for sustainability and capacity.
- Constrained (truncated) returns and other regulatory risks have inhibited asset renewal to an extent that could produce market failure.
- Significant gains achieved through competition reforms now need to be sustained through re-balancing of regulation towards the need for investment incentive for renewal and enhancement.

### Has the application of NCP not delivered returns seen on other rail networks?

- Suggested by some parts of the industry.
- ARTC does not subscribe to this theory:
  - Many other factors involved (economics, industry structure, under-investment, neutrality)
  - No serious threat of competition on branchlines in WA, SA or Victoria and what little competition that existed in southern NSW has been eliminated by industry rationalisation.
  - Difficult to conclude that competition (rail-on-rail) has resulted in the current predicament on these networks

- Currently managed by ARTC on behalf of the NSW Government
- Very low cost recovery but underpinned by NSW Government funding.
- 15 'restricted' lines - lightly used, poor condition, minimal maintenance)
- Current political (public liability) and market realities (super sites) mean use of all lines with grain loading facilities is uncertain
- ARTC suggests current level of funding support may not be sufficient to maintain even the status quo on restricted lines.

ARTC considers best future strategy is to identify those lines with no operational future for closure, and focus on funding those lines most likely to survive for market and logistical reasons.



**ARTC would support:**

- Re-balancing of regulatory emphasis towards encouragement of investment in infrastructure sustainability and capacity.
- Improved transparency and equity of modal infrastructure pricing.

**ARTC would not support:**

- Exempting rail networks serving the export grain industry from the provisions of NCP.

**ARTC is not opposed to vertical integration of low volume regional branchlines.**

## Key differences with regional grain networks

- Industry ability to pay.
- Greater integration of the coal supply chain
  - More coordinated approach
  - Focus on achieving optimal utilisation of the chain rather than individual elements..
- More regular throughput
- Lack of competitive transport alternative
- Pricing governed by regulation rather than competition.



## ARTC's experience in the Hunter Valley coal supply chain

- Over the past 3-5 years, throughput has increased from 60mTpa to 85mTpa.
  - Limited 'hard' infrastructure investment
  - Identification and reduction of inefficient operating practices
  - More coordinated approach to coal supply chain management.
  
- Supply chain management efficiencies have produced some significant gains; more is still achievable through enhanced participation by all players.
  
- Industry must now deliver a quantum increase in capacity to meet forecast demand.

ARTC's Hunter Valley corridor capacity improvement strategy is intended to increase current capacity to nearly 140mTpa by 2009, at a cost to ARTC of around \$270m. But there are risks..

Need for other parts of the coal supply chain to invest in complementary infrastructure including above rail assets, and port capacity.

- Investment in port capacity at Newcastle is occurring.

### Impact of regulation

- Key impediment to improving efficiency, capacity and sustainability.
- Past under-investment, delay to future investment (eg Dalrymple Bay)
- In the Hunter Valley, ARTC considers that there are a number of elements of the current NSW rail access regime that have the potential to constrain growth and sustainability investment.

## Constraint on the regulated network

- Regulation only provides for a return to be made on a defined HV coal network.
- This network is not an island and forms part of a bigger network carrying other traffics that use the HV coal network.
- It may be that investment outside of the regulated coal network provides the most efficient means to provide capacity in the coal network with benefits accruing to coal users.
- Despite this, the track owner cannot extract a return from these beneficiaries
- The track owner is incentivised to invest within the regulated coal network, even though this may be less efficient.
- Even so, regulation does not permit recovery of inefficient investment.
- These issues need to be addressed.



*Regulated Coal Network*

## Stand-alone nature of the revenue ceiling test

- Permits recovery from coal users where investment would be required for a stand-alone coal network (i.e. if coal were the only user)
- In reality, the network is shared by other traffics (grain, passenger) that consume capacity but are unable to pay for additional capacity (Passenger priority is legislated in most states).
- The requirement for additional capacity is predicated on **all** existing utilisation of the network.
- The dilemma is that the parties that can afford to pay for the investment are not necessarily required to do so under regulation.
- This regulation is fine in the theoretical economic sense, but is not practical in the real world.

## Permitted Rate of Return

- Average cost of capital is assessed by the regulator.
- The company's debt and equity investors may take a different view.
- Company hurdle rate may be set even higher.
- Regulation does not provide further upside to act as an incentive to invest in the regulated part of the network.
- Other assets, whilst possibly higher risk may offer potential upside above cost of capital.
- Incentive to invest scarce capital resources in other parts of the network.

## Access to Intermodal Terminals & Ports

- Essential elements for entry to the interstate and regional rail networks.
- Where owned by vertically integrated providers, historical experience does not suggest to ARTC that regulation alone represents a sufficient solution.
- Structural separation represents a better means to encourage competition. Benefits of competing multi-use of terminals and wider network flow-on benefits is likely to outweigh any efficiency losses through integration.

## Land Use Planning Practices

- Disjointed, indiscriminate, politically driven and creates investment uncertainty.
- Longer term transport strategies in capital cities are being recognised.
- AusLink should provide further long term focus and coordination.

## Multiple Regulation

- Adds cost & complexity to all parts of the national transport logistics network
- ARTC supports NTC efforts in creating a national approach to rail safety and addressing overlaps in other regulation.

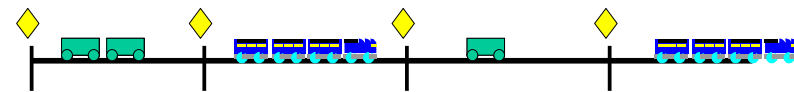
## Use of Technological Advances

-Electronic/satellite tracking of heavy road vehicle use in Australia. Benefits are:

- Mass-distance charging results in more equitable pricing and investment across modes (compared to blunter tools such as fuel excise)
- Safety - authorities are far better placed to ensure vehicle maintenance and operating standards are maintained.
- Supply chain management - offers more efficient asset utilisation, industry responsiveness and timely consignment tracking

-Advances in communications technology for rail

- Use of GPS/satellite technology for network management offers increased network capacity, safe and efficient train control and reduced cost.



**Fixed Signal:** sections determine capacity, one train per section regardless of size - wasted capacity, expensive to maintain



**Flexible signal** - satellite based; moving block, positive train separation, **maximum utility**, lower cost to maintain

-Technology will drive greater information exchange along supply chains where end users will interface with train building, inventory control, invoicing and utilisation activities