Grain Growers

Zoe Hanson – *Reaping wheat at Pekina*

NATIONAL GRAIN FREIGHT STRATEGY

CONNECTING THE DOTS
Improving Australian Grain Supply Chain Efficiency

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About GrainGrowers

GrainGrowers is a grain farmer representative organisation representing members across Australia. Our goal is a sustainable and profitable grain production sector for all Australian grain farmers and the wider grains industry.

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Maddisan Preston – *Wheat at sunset*

NATIONAL GRAIN FREIGHT STRATEGY

Introduction

Increasing the productivity and efficiency of the supply chain is critical for the long-term viability of the Australian grain industry.

The grain industry is a vital pillar of the Australian economy, delivering an average of 45 million tonnes of grain annually over the past decade and contributing an average of $15.5 billion per annum in gross value to the Australian economy.

However, high supply chain costs have a significant and direct impact on Australian grain growers and threaten the global competitiveness of the Australian grain industry.

Already facing comparatively higher costs of production, reducing supply chain costs presents a key opportunity to ensure Australian grain remains globally competitive and to deliver savings for Australian growers.

The National Grain Freight Strategy sets out short, medium and long-term priorities to ensure the continuing strength of the grain industry.

Building on the findings of the Connecting the Dots: Improving the efficiency of the Australian Grain Supply Chain report, the strategy provides a practical road map for government to ensure Australia's global competitiveness.

Tayla Burton – *Sorghum Harvest*

Background

The Australian grain freight supply chain is characterised by diverse, complex and multi-directional freight journeys, often across multiple modes of transport.

From paddocks across regional Australia, grain travels either by road, rail or a combination of both, to port for export or to domestic markets such as flour and feed mills, malthouses, food manufacturers and livestock feedlots

According to CSIRO TranSIT modelling, transport costs the grain industry $2.1 billion per annum, representing the single largest cost in Australian grain production.

The past three record harvests have underscored capacity constraints within the network.

In 2022-23, winter crop production in Australia was estimated at a new record of 65.7 million tonnes, surpassing the previous year's record by 4 million tonnes and wheat alone was Australia's sixth largest export.

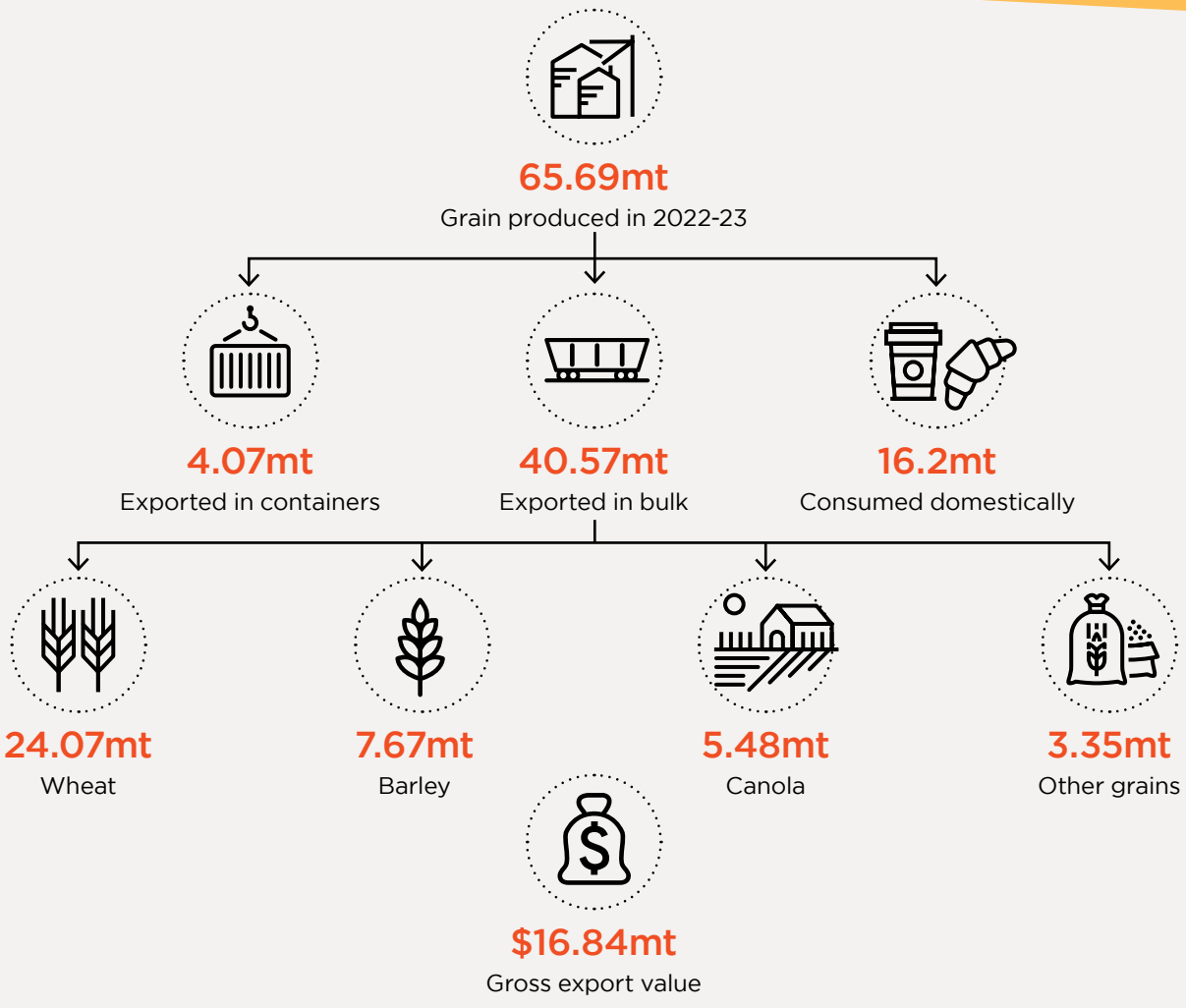
However, as a globally traded commodity, Australian grain faces increasingly strong international competition in key export markets.

Despite having a proximity advantage to Indonesia, where sea transit times from Australia are 50-75% less than transit times from Canadian and Ukrainian ports, Australia is experiencing heightened competition.

Prior to the Russia-Ukraine conflict, Ukrainian grain production costs were approximately AUD$70 less per tonne than in Australia. Similarly, the total cost of producing a tonne of grain, including delivering it to port and loading it onto a ship in Russia was approximately AUD$124 less than in Australia.

While Russia and Ukraine's wheat exports are reduced at the present due to the conflict, export volumes are expected to normalise over the medium to long-term.

Therefore, Australia must have an efficient grain supply chain to be competitive on a delivered-cost basis.



Annabel O'Dea – *Harvesting canola during golden hour!*

KEY OBJECTIVES

Underpinning the strategy are the following key objectives:

1. Encourage competition and new supply chain entrants

- Competition is vital for ensuring the efficiency of the Australian grain supply chain, driving investment in innovation and fostering the adoption of new technologies.
- The high cost of entry for key grain supply chain infrastructure such as rail, ports and stevedores, however, is often seen to restrict competition and deter new participants from entering the market.
- Effective monitoring and regulation are critical for promoting competition.
- As noted by the former Chair of the ACCC, Rod Sims: "It is bad for the economy when bottleneck infrastructure, at the end of a crucial value chain, is in the hands of a company with unfettered market power."
- GrainGrowers is concerned that the recent trend in privatising assets without adequate regulation is giving rise to monopolies that reduce efficiency, increase prices and damage the economy.
- When government privatises critical infrastructure such as ports, the process must not adversely impact competition and diminish Australia's overall productivity and competitiveness.

2. Increase scalable capacity within the supply chain

- Fluctuations in annual grain production levels necessitate scalable capacity within the supply chain.
- The past three successive record harvests highlight the limitations of the supply chain to export grain during key export windows.
- Exporting Australia's grain as quickly as possible using least cost pathways following harvest is critical for capturing high international prices as our seasonal counter cyclicality presents an opportunity for Australian exporters to sell grain to international markets in times of reduced global supply.
- During this window, prices for Australian grain can be higher than the rest of the year due to lower competition from the Northern Hemisphere. However, as Australia's national crop size continues to grow, to capitalise on higher prices, the industry's supply chain must have sufficient capacity to handle the elevated volumes of grains in a timely and cost-effective manner.
- Grain production levels can vary significantly due to seasonal conditions. For example, drought in 2019 and 2020 resulted in approximately 30 million tonnes of production. In contrast, 2021, 2022 and 2023 were bumper harvests, achieving more than double the volume of 2020 and setting new grain production records. It is therefore critical supply chains have the capacity to flex up and down in response to the fluctuations of production volumes.

3. Streamline and harmonise regulation

- Streamlining and harmonising transport regulation and reducing red tape is crucial to unlocking productivity gains in the grain supply chain.
- While Australia's transport systems have evolved from separate state-based networks, they continue to suffer from a legacy of inconsistent systems and rules.
- Grain rail transport operators must navigate significant administrative burden and complexities when traveling on a route that traverses multiple rail infrastructure manager networks. These different systems and operations create significant additional complexity and cost, which are ultimately passed onto the rail users, as well as increasing safety risks due to human error from operating across different systems and networks with varying requirements.
- Similarly, despite the development of Heavy Vehicle National Law, and the National Heavy Vehicle Regulator, there are still significant variations between states and even local government areas.
- Streamlining current inconsistent rules, while focusing on increasing productivity will increase compliance and lower administration costs for transport operators.

4. Build supply chain resilience

- A resilient infrastructure network is critical for ensuring the efficient movement of grain to market.
- Severely damaged infrastructure dramatically increases the time and cost of moving freight to and from our rural production centres.
- Repeated flood events and persistent and unprecedented rainfall have deteriorated critical road and rail infrastructure across Australia's grain growing regions and has exacerbated systemic long-term underfunding of our regional freight network.
- Road and rail infrastructure are long-lived investments, with roads typically having design lives of approximately 20 to 40 years. It is therefore crucial that investments are made now in building resilience to emerging issues associated with natural disasters and climate risk.

5. Support new technologies and innovation

- New technologies and innovation play a key role in improving the efficiency of the grain freight supply chain.
- While the grain industry has significant legacy infrastructure, it is critical the industry continuously seeks to optimise the way things are done rather than replicate traditional modes of operation. In addition to improving the efficiency of grain freight, new technologies can enhance safety on the road and rail network.
- Government has a key role to play by ensuring new regulation and infrastructure investment supports and facilitates the adoption of new technologies and innovation.
- For example, the development and adoption of autonomous vehicle technology presents a significant opportunity for innovation within Australian agriculture.
- Autonomous freight vehicles (AFV) have the potential to significantly reduce freight costs, increase reliability and improve overall supply chain efficiency. These AFVs are nearing commercialisation, with some manufacturers predicting autonomous heavy vehicles will be on the roads as early as 2026.
- While the adoption of autonomous vehicle technologies will initially be challenging for the grain freight industry due to factors such as unsealed roads and a lack of consistent lane markings, a number of early-use cases have been identified such as platooning and linehaul.

6. Enhance freight sustainability

- Ensuring a sustainable supply chain is critical for the Australian grain industry.
- The past five years have seen a marked increase in environmental, social and governance (ESG) reporting by public companies to evaluate and mitigate financial risk for the organisation and its investors. This evolving trend, combined with moves by the Australian Government to mandate standardised reporting, has implications across the grain value chain.
- Demonstrating ongoing improvement will help protect and grow the customer base for Australian grains and support advancements in trade and market access.

ACTION PLAN

1. Road funding

Why is it important?

A well-maintained national road system is imperative for the efficient, cost-effective and safe transportation of grain.

Road freight has become an increasingly important element of the grain supply chain, with most domestic grain, and an increasing proportion of export grain, transported by road.

With climate change expected to increase the frequency and intensity of weather events such as floods, extreme temperatures and bushfires, it is vital all levels of government use the current period to strengthen Australia's long term supply chain resilience.

Short-term

- Each state to develop a grain freight strategy to inform the direction for future investment in freight infrastructure.
- Increase funding towards direct funding mechanisms such as the Roads to Recovery Program rather than grant-based applications.
- Provide funding to critical grain freight routes under the Infrastructure Investment Program.
- Strengthen the *National Freight and Supply Chain Strategy's* governance structures and elevate it as a priority in National Cabinet to ensure increased accountability and adequate resourcing.

Medium-term

- Embed national road resilience data within the National Freight Data Hub to increase jurisdictional knowledge and assist with future infrastructure funding.
- Utilise the CSIRO's Transport Network Strategic Investment Tool to examine projected climate change impacts on strategic road network routes.
- Develop national road infrastructure resilience guidelines to inform asset management and project investment.
- Jurisdictions to implement proactive road maintenance strategies with a core focus on flood resilience.

Long-term

- Reform road funding, re-balancing funding across metropolitan and regional councils, based on network size and economic impact.
- Jurisdictions to develop road maps for transitioning existing infrastructure to meet the needs of autonomous vehicles.

2.
Road regulation

Why it is important?

Improved regulation has the potential to improve the safety and productivity of grain freight.

Existing road regulation is hampering the adoption of **High Productivity Freight Vehicles (HPFVs)** despite the overwhelming potential benefits for safety, efficiency and lowering carbon emissions.

In addition to carrying higher volumes and reducing freight costs, using Performance Based Standard (PBS) vehicles minimises damage to road infrastructure and improves road safety with 46% fewer major crashes per kilometre travelled than conventional heavy vehicles.

Although Heavy Vehicle National Law was intended to encourage innovation, productivity and efficiency in the road transport sector, in practice, the adoption of HPFVs especially through the PBS scheme in Australia is often constrained by poor regulation and complex and lengthy permit requirements.

Short-term

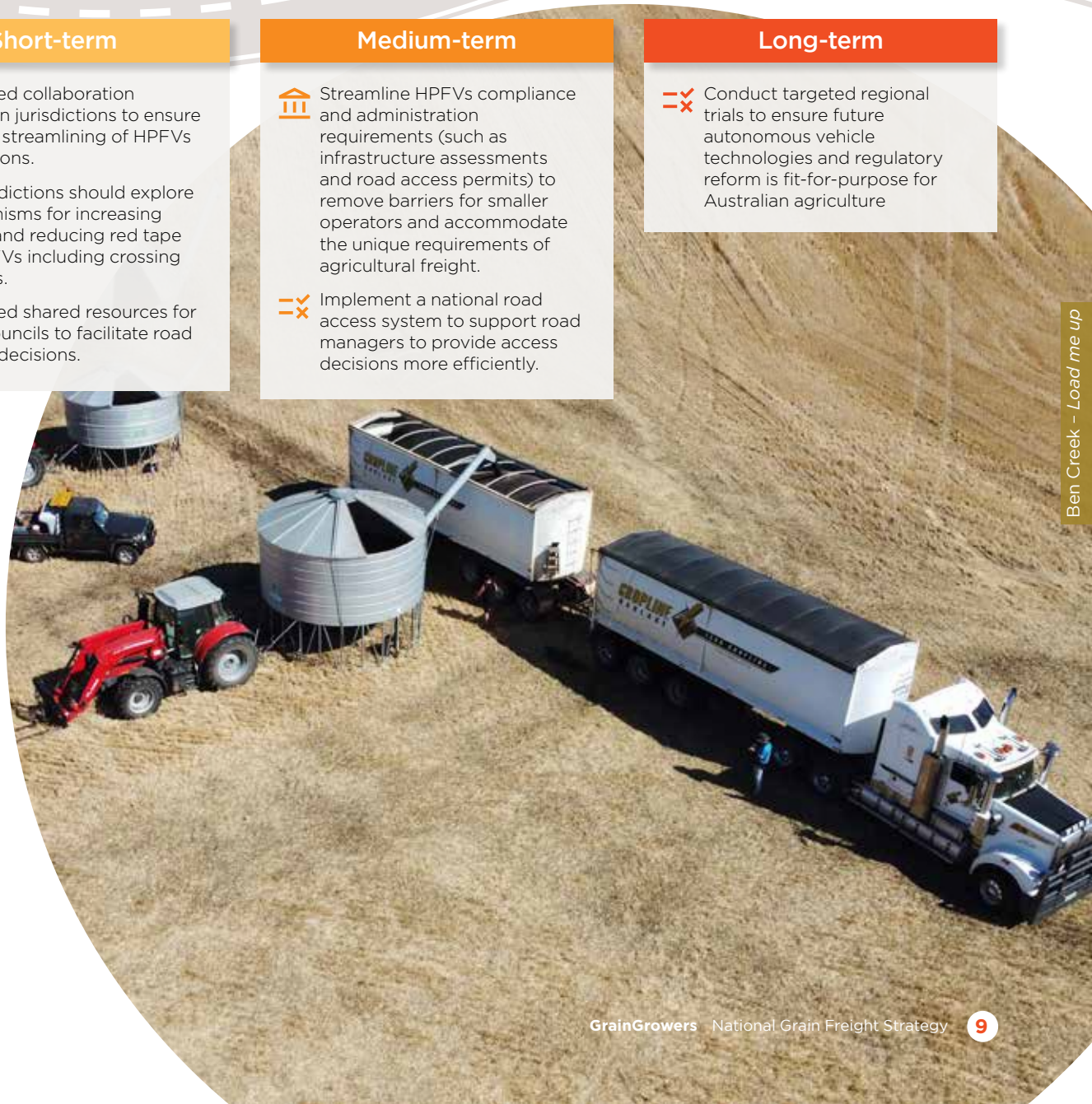
- Increased collaboration between jurisdictions to ensure greater streamlining of HPFVs regulations.
- All jurisdictions should explore mechanisms for increasing safety and reducing red tape for HPFVs including crossing rail lines.
- Increased shared resources for local councils to facilitate road access decisions.

Medium-term

- Streamline HPFVs compliance and administration requirements (such as infrastructure assessments and road access permits) to remove barriers for smaller operators and accommodate the unique requirements of agricultural freight.
- Implement a national road access system to support road managers to provide access decisions more efficiently.

Long-term

- Conduct targeted regional trials to ensure future autonomous vehicle technologies and regulatory reform is fit-for-purpose for Australian agriculture



Ben Creek – *Load me up*

3.
Bridges

Why it is important?

Although there has been an increase in gazetted High Productivity Freight Vehicles (HPFV) access, the practical ability of HPFVs to operate continues to be impeded by ageing bridge infrastructure throughout the network.

Much of Australia's regional bridge infrastructure was built over 70 years ago and is nearing the end of its useful life, but rural and regional road managers are often unable to afford the cost of replacing bridges.

Instead, many councils are forced to implement bridge load limits to protect assets, inhibiting productivity by restricting the total weight a heavy vehicle can carry over the bridge, resulting in the use of smaller and less efficient heavy vehicle combinations to transport grain.

Ensuring road infrastructure is sufficient to carry HPFVs is essential for improving supply chain efficiency for the grain industry and other industries reliant on road freight.

Short-term

- Identify and fund bridge upgrades on key high volume grain freight routes with the objective of enabling significantly higher 'whole-of-route' freight capacity, while limiting capital requirements.
- Targeted funding for cross-border bridges to increase load capacity and dimensions to facilitate interstate freight movements.

Medium-term

- Targeted funding for regional local councils to conduct bridge assessments on ageing local bridge infrastructure.
- Consolidate bridge structure data between jurisdictions including the location, condition rating, bridge type, date of construction, date of last inspection and height clearance into a single database.
- Develop consistent bridge assessment formulae across jurisdictions.

Long-term

- Commit long term funding to gradually improve the weight restrictions on bridges across grain producing areas to enable continued efficiency improvements

4.
Rail

Why it is important?

Rail is critical for the efficient transportation of grain over long distances from in-country growing regions to port.

Increasing the amount of grain freight on rail, where possible, presents a viable, existing way to substantially reduce carbon emissions. According to the Australian Rail Association, rail freight produces 16 times less carbon pollution than road freight per tonne kilometre travelled, valued at 1c per tonne kilometre.

One of the key challenges facing rail freight is that Australia has highly localised rail networks with significant variations between states, undermining the interoperability of the network. For instance, across Australia there are currently 3 separate gauges and 8 Rail Infrastructure Managers.

This lack of interoperability significantly reduces rail freight efficiency, creating extensive operational complexity that negatively impacts reliability and cycle time efficiency. This increases costs, which are ultimately borne by grain growers who receive a lower price for grain at the farm gate.

Short-term

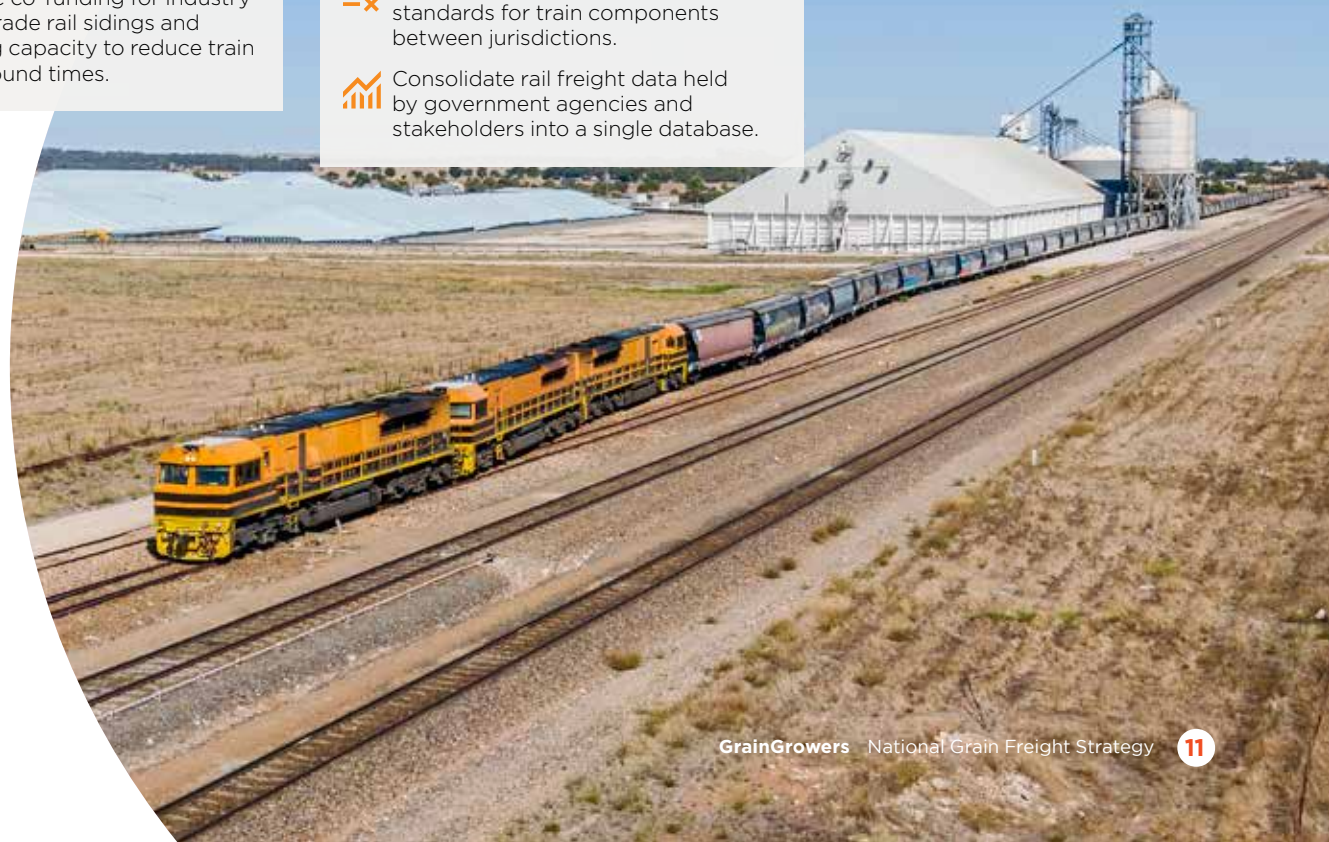
- Provide targeted funding to upgrade the rail network within critical freight corridors.
- Harmonisation of rolling stock access agreements across Rail Infrastructure Managers and streamline approvals to facilitate adoption of new technologies.
- Conduct an audit of existing infrastructure standards and identify opportunities for standardisation and network expansion.
- Provide co-funding for industry to upgrade rail sidings and loading capacity to reduce train turnaround times.

Medium-term

- Improve metropolitan rail network access for freight trains on shared freight/passenger lines.
- Jurisdictions to explore grants or leasing programs for operators on broad gauge lines to access new rolling stocks.
- Jurisdictions to implement proactive rail maintenance programs with a key focus on flood resilience.
- Align train control and signalling technology on the eastern seaboard.
- Formalise mandatory common standards for train components between jurisdictions.
- Consolidate rail freight data held by government agencies and stakeholders into a single database.

Long-term

- Jurisdictions to identify priority grain freight routes for standardisation.
- Harmonise safe working rules and systems.



5. Ports

Why it is important?

As an export-orientated industry, a well-functioning port system is especially critical for Australia's grain industry that relies on the nation's ports and shipping networks to transport grain to overseas markets.

Australia's ports and related landside logistic chains face major challenges from growth in trade.

Port and maritime inefficiencies have had a profoundly detrimental impact on grain exports, with spiralling costs and delays. These issues will only further intensify as Australia's ports face challenges from increasing trade.

Short-term

- Introduce a nationally coordinated approach to port regulation that ensures greater consistency and coordination between jurisdictions, including container terminal charges.
- The Australian Government to monitor port productivity.

Medium-term

- All levels of government incorporate the National Urban Freight Planning Principles in land use decision-making to improve planning for freight across Australian ports.
- Ensure appropriate and effective regulatory arrangements are adopted during port privatisation processes.
- Targeted investment to address last mile access to critical infrastructure connecting the port.

Long-term

- Repeal Part X of the *Competition and Consumer Act* to increase competition between shipping lines.

6.
Freight decarbonisation

Why it is important?

Decarbonisation will represent a fundamental shift to Australian grain freight and the broader freight industry. The Australian Government has legislated an emissions reduction target of 43% by 2030 and net zero emissions by 2050 under the Climate Change Act 2022.

As a hard to abate industry, this will require a nationally coordinated, strategic and staged transition with collaboration across the supply chain.

The commercialisation of low emission road and rail technologies is still in its infancy and therefore targeted government support will be required to enable the development of viable low emission pathways for grain freight.

Short-term

- Implement a National Transport and Infrastructure Net Zero Roadmap and Action Plan that provides a nationally consistent approach to accelerate decarbonisation.
- Include decarbonisation as a goal of the *National Freight and Supply Chain Strategy*.
- Develop a National Modal Shift Scheme to incentivise increasing the amount of grain freight on rail, where possible.
- Explore opportunities for the domestic production of canola-based biofuels that can be used in existing combustion engines to reduce emissions.

Medium-term

- Develop a national agriculture-specific low emission vehicle roadmap and strategy.
- Targeted funding through the Driving the Nation Fund to ensure adequate access to charging infrastructure in regional Australia.
- Grants and resourcing for small businesses to adopt new low emission technologies.

Long-term

- Fund renewable fuel hubs in regional areas for agricultural freight.

Kerry McFarlane – *Reflections following a rain event*

AT A GLANCE: GRAINGROWERS NATIO

Why: To ensure a profitable and sustainable operating environment for our growers

What: The strategic objectives

Encourage competition and new supply chain entrants	Increase scalable capacity within the supply chain	Streamline and harmonise regulation

How: The action plan

Road funding

A well-maintained national road system is imperative for the efficient and cost effective transportation of grain.

Road regulations

Improved regulation has the potential to substantially reduce transport/logistics costs for the grain industry.

Bridges

Ensuring bridge infrastructure is sufficient to carry higher capacity freight vehicles is essential for improving supply chain efficiency.

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NAL GRAIN FREIGHT STRATEGY

Build supply chain resilience	Support new technologies and innovation	Enhance freight sustainability

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