

# **Wine Australia for Australian Wine**

**Towards CarbonZero  
for the Wine Sector**

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# Our role

Our role is to:

- coordinate or fund grape and wine **research** and **development**, and facilitate the dissemination, **adoption** and commercialisation of the results
- control the export of wine from Australia
- increase the demand for Australian wine, both in Australia and overseas, through targeted promotion and marketing activities.

We also enhance commercial opportunities through regulation, market access and market insights.

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**Climate change is real**

**It is caused by humans burning fossil fuels**

**We're already dealing with the effects in our vineyards and wineries**

# The consequences of climate change



- **Generally hotter and drier**



- **Change in rainfall patterns**



- **Increased climate variability**



- **More frequent climate extremes**



# Climate change threats to wine production

**vine  
productivity**

**vine  
phenology**

**berry  
composition**

**vintage  
compression**

**premium  
grape  
growing areas**

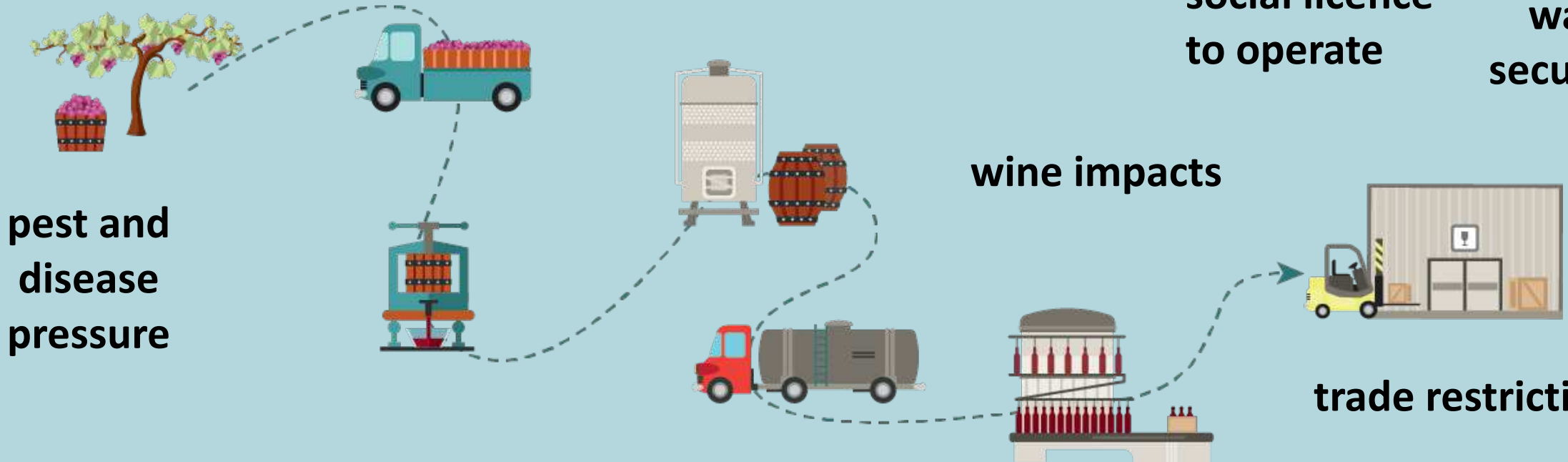
**traditional  
varieties**

**social licence  
to operate**

**water  
security**

**wine impacts**

**trade restrictions**



# Climate change opportunities for wine production

vine  
productivity

vine  
phenology

berry  
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social licence  
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wine impacts

pest and  
disease  
pressure

trade restrictions



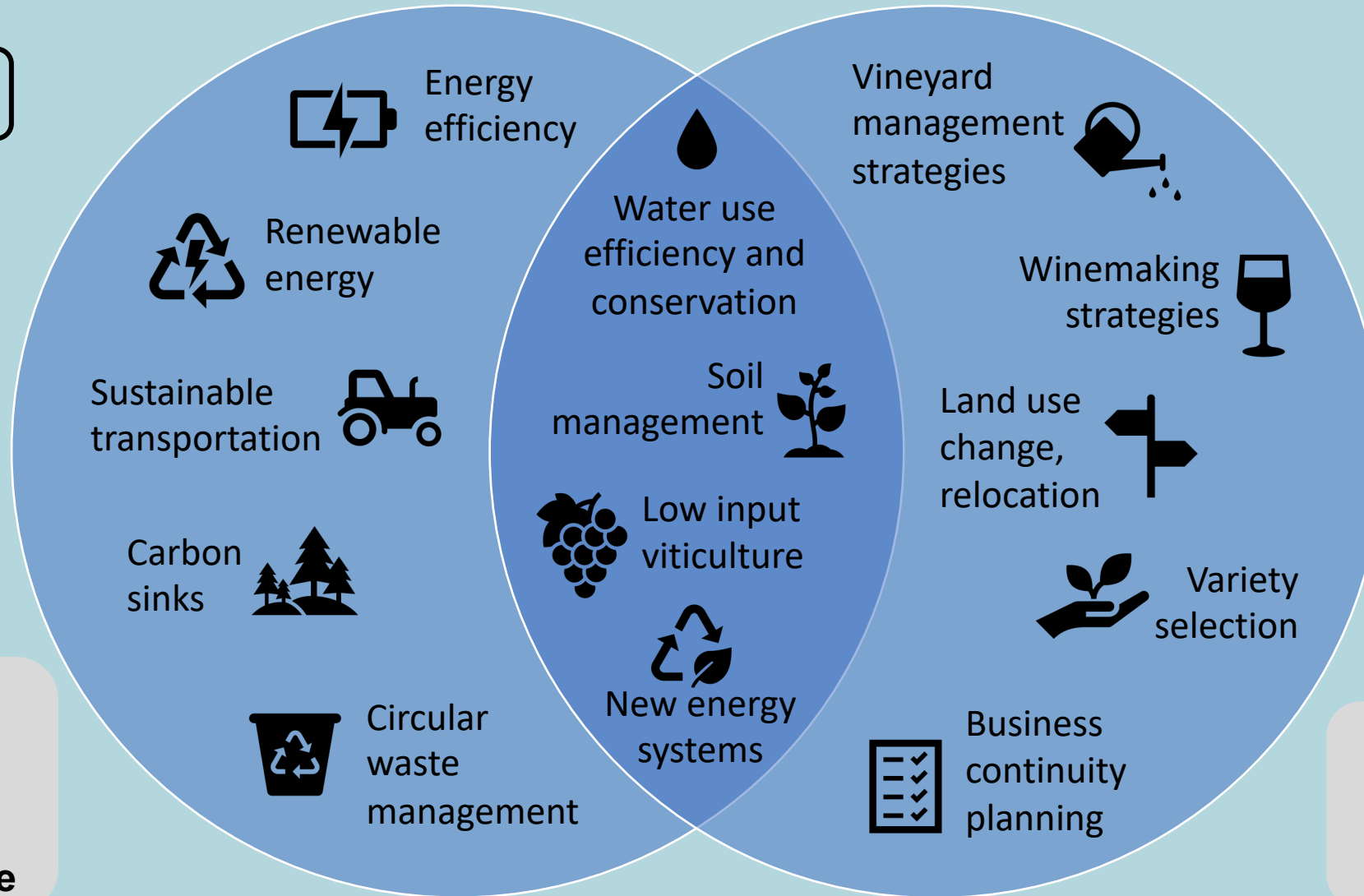
# Building climate resilience

## Mitigation

## Adaptation

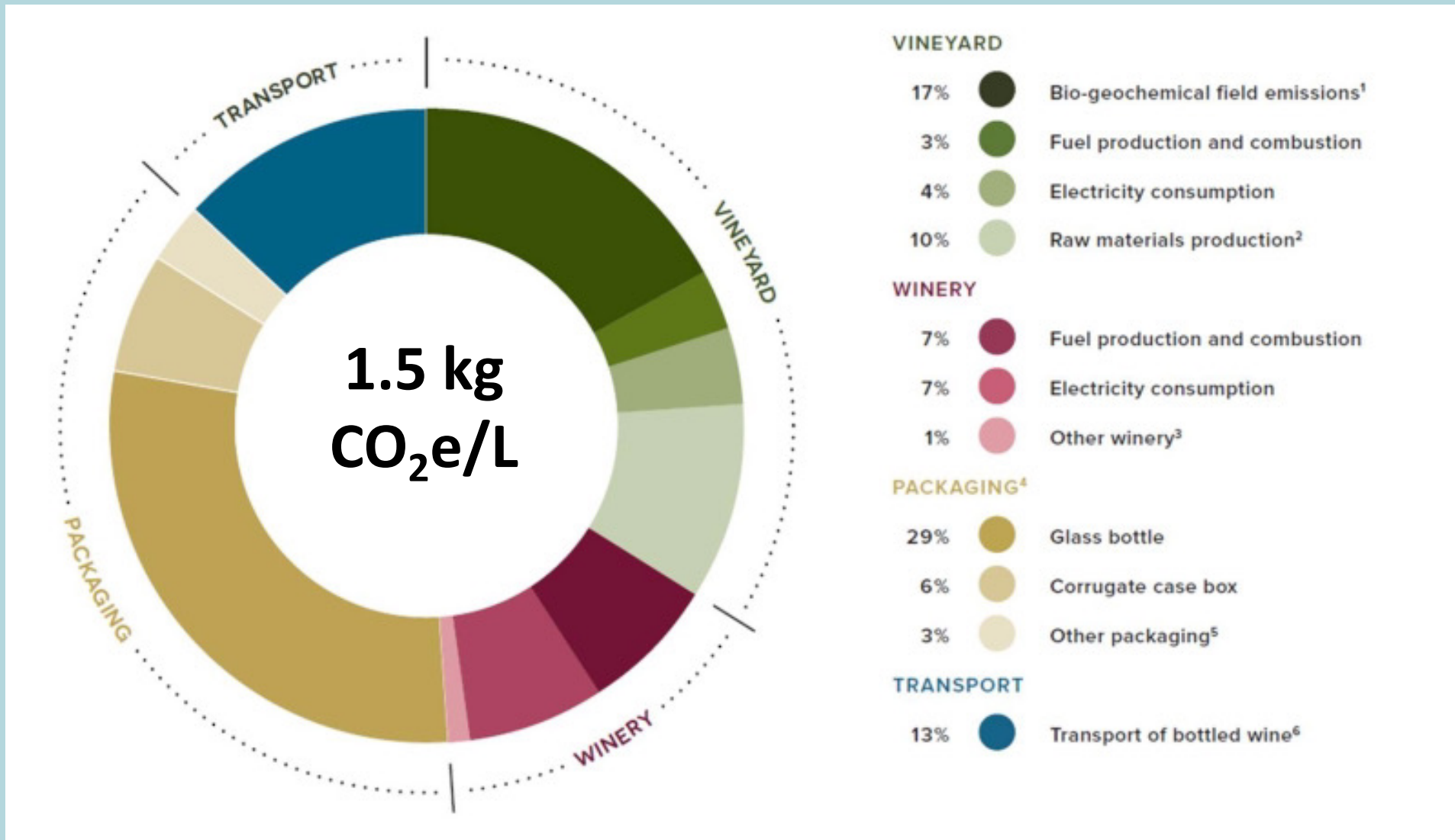
**Action to  
reduce the  
emissions  
that cause  
climate change**

**Action to  
manage the  
impacts of  
climate change**





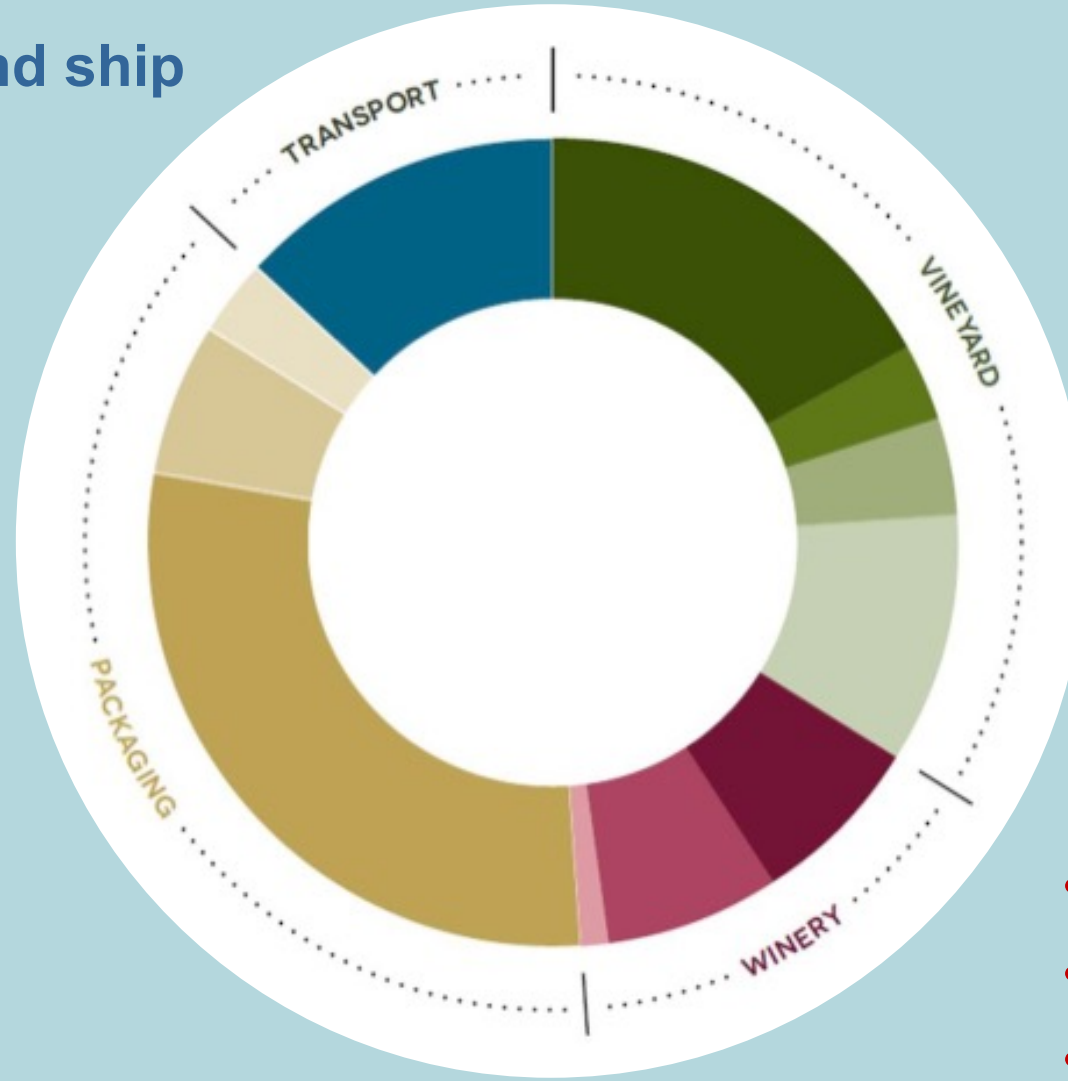
# The carbon footprint of wine





# The carbon footprint of wine: abatement opportunities

- Truck and air to rail and ship
- Bulk shipment



- Reduce fuel use
- Optimise inputs
- Manage nitrogen
- Manage soil

- Energy efficiency
- Renewable energy
- CO<sub>2</sub> capture

- Lightweight, alternative packaging
- Sustainable secondary packaging

# The International wine sector responds

- **International Wineries for Climate Action** is a collaborative working group of wineries committed to reducing carbon emissions across the wine industry. Founding members are Familia Torres and Jackson Family Wines
- **The Porto Protocol** is an international foundation whose members foster climate solutions for the wine industry and who are committed to climate mitigation across the entire wine value chain
- Many international wine-producing countries and regions have **sustainability certification programs** which include carbon footprint reporting (NZ, California, Great Britain, ...)
- The **International Greenhouse Gas Protocol and Accounting Tool** is an inventory of factors and a tool for Greenhouse gas accounting in the vine and wine sector.

# **The Australian wine sector responds**

- **Ready adoption of solar energy**
- **Individual businesses using sustainable production practices, adopting long-term environmental strategies and striving for carbon neutrality**
- **Five wine companies are certified carbon-neutral**
- **Sustainable Winegrowing Australia launched in July 2019 and incorporates the Australian Wine Carbon Calculator to capture emissions data**
- **The grape and wine sector aims to have zero net carbon emissions by 2050 (Australian Grape & Wine's Vision 2050)**

# Adaptation strategies

- **Smoke taint remediation strategies, an early warning remote smoke sensor network, smoke taint analytics and a predictive real-time tool for risk**
- **Extreme weather predictions out to four weeks (heat, cold, frost and rain)**
- **Update of Wine Climate Atlas to include finer resolution climate data**
- **Irrigation best practice: benchmarking and practice change projects**
- **Variety clonal trials across diverse climates**
- **Rootstock and scion breeding for improved stress tolerance**



# Mitigation strategies

- **Develop roadmap to CarbonZero for the wine sector**
- **Establish a baseline of greenhouse gas emissions**
- **Practice change projects and resources to assist the sector to reduce emissions**
- **Cover crops, soil carbon and functional biodiversity: R&D, practice change projects**
- **Circular economy for CCA treated posts and other vineyard and winery waste**
- **Updating carbon tool embedded in SWA, add abatement activities**



# **A climate of opportunity across agriculture sectors**

- **CRSPI – Climate Research Strategy for Primary Industries**
- **Agriculture Innovation Australia priority plans - Climate Resilience (\$80-100m)**
- **Common Carbon Methods project - CSIRO**
- **AFI: Australian Agriculture Sustainability Framework**
- **Commonwealth Adoption and Innovation Hubs: enhance drought resilience practice, tools and technology (\$86m)**
- **Food Agility CRC – Cool Soil Initiative – reducing emissions by supporting soil structure and function**

# Key messages

We're doing OK...

Aim for zero greenhouse gas emissions across the supply chain

Commit to targets as a sector

Continue to innovate and collaborate

Adapt existing vineyards to changes we can't avoid



# The wine sector can lead the way on emissions reduction



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