



FUTURE FREIGHT CRC

PROSPECTUS

Future Freight CRC will play a pivotal role in the development of high performing freight systems that benefit Australian businesses, communities and the national economy.

By facilitating impactful freight-related collaborations between industry, government and researchers we will:



Boost national productivity and efficiency



Enable digital transformation for freight with flow on to other sectors



Increase supply chain resilience and future proof networks



Accelerate decarbonisation in a lagging area



Assist rural development initiatives



Avoid and reduce accidents, injuries and fatalities



Develop a freight innovation mindset – currently a gap in Australia’s innovation landscape



Contribute to sovereign capability



Support desperately needed workforce capability and capacity building

The importance of Freight to Australian success

Freight is an essential and large contributor to the Australian economy. In 2020-21 alone, total transport activity contributed \$164.4 billion to the economy, representing 7.9% of the Australian Gross Domestic Product (GDP).

The predicted growth in freight task of 26% between 2020 and 2050 will take domestic freight movement from 765 billion tonne kilometres in 2019-20 to 964 billion tonne kilometres.

Meeting this demand by itself represents a significant challenge for a sector that is already under pressure. However, there are many compelling reasons for why we need to focus on ways to transform our freight systems including:

- To help Australian businesses to become/ remain competitive, both domestically and internationally
- An urgent need for freight to play its part in the decarbonisation effort
- Infrastructure challenges, which is ageing, missing or not fit for purpose
- A growing need to integrate effectively with other relevant sectors (Energy, Food Production, etc.) and technologies (i.e. automation, AI)
- Better freight mode integration and use of alternatives to road
- Supporting desperately needed workforce capability and capacity building
- The need for policy and reform to keep pace with change the evolving needs of the sector

The good news is this means we are ripe for transformation, and the tools to enable this continue to advance. Australia has the smarts to leverage technology and data to Freight's advantage, but is crying out for a mechanism to facilitate outcomes.

“Freight is the lifeblood of Australia’s economy — moving 4 billion tonnes a year, or 163 tonnes for every person.”

freightaustralia.gov.au



Future Freight
CRC: A proven
mechanism
to advance
development
of an Australian
freight ecosystem
through helping
businesses
to solve their
challenges
and grow.

What is an effective ‘freight ecosystem’?

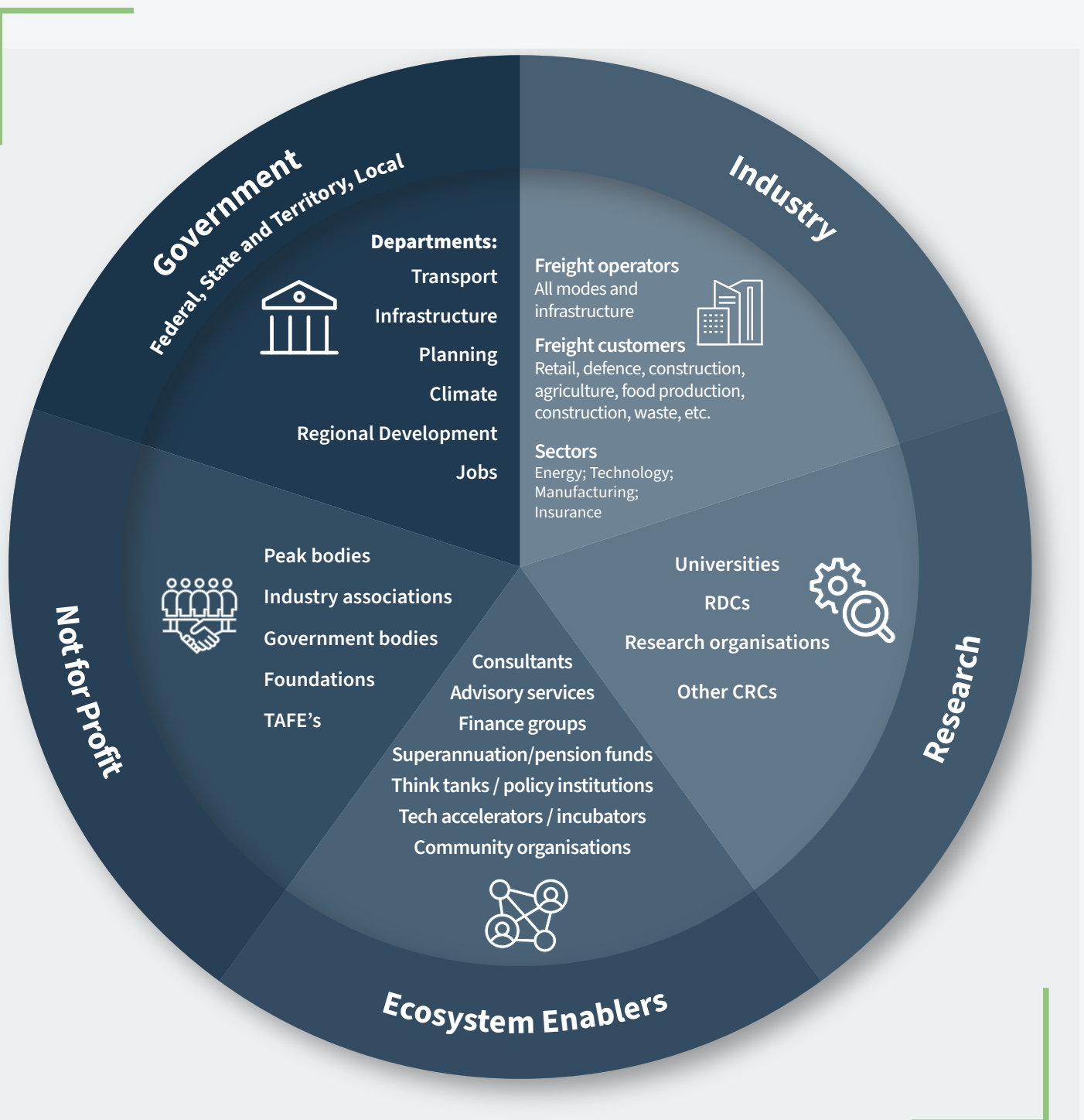
A dynamic and evolving web of freight networks that communicate and cooperate to:

- Ensure operational efficiency and reliability
- Withstand, adapt to and recover from disruption
- Minimise environmental impact
- Promote inclusiveness and equity
- Integrate circular economy principles

This ecosystem underpins the success of all our sectors, enables all our supply chains and reaches every community nationwide.

Who is in a freight ecosystem?

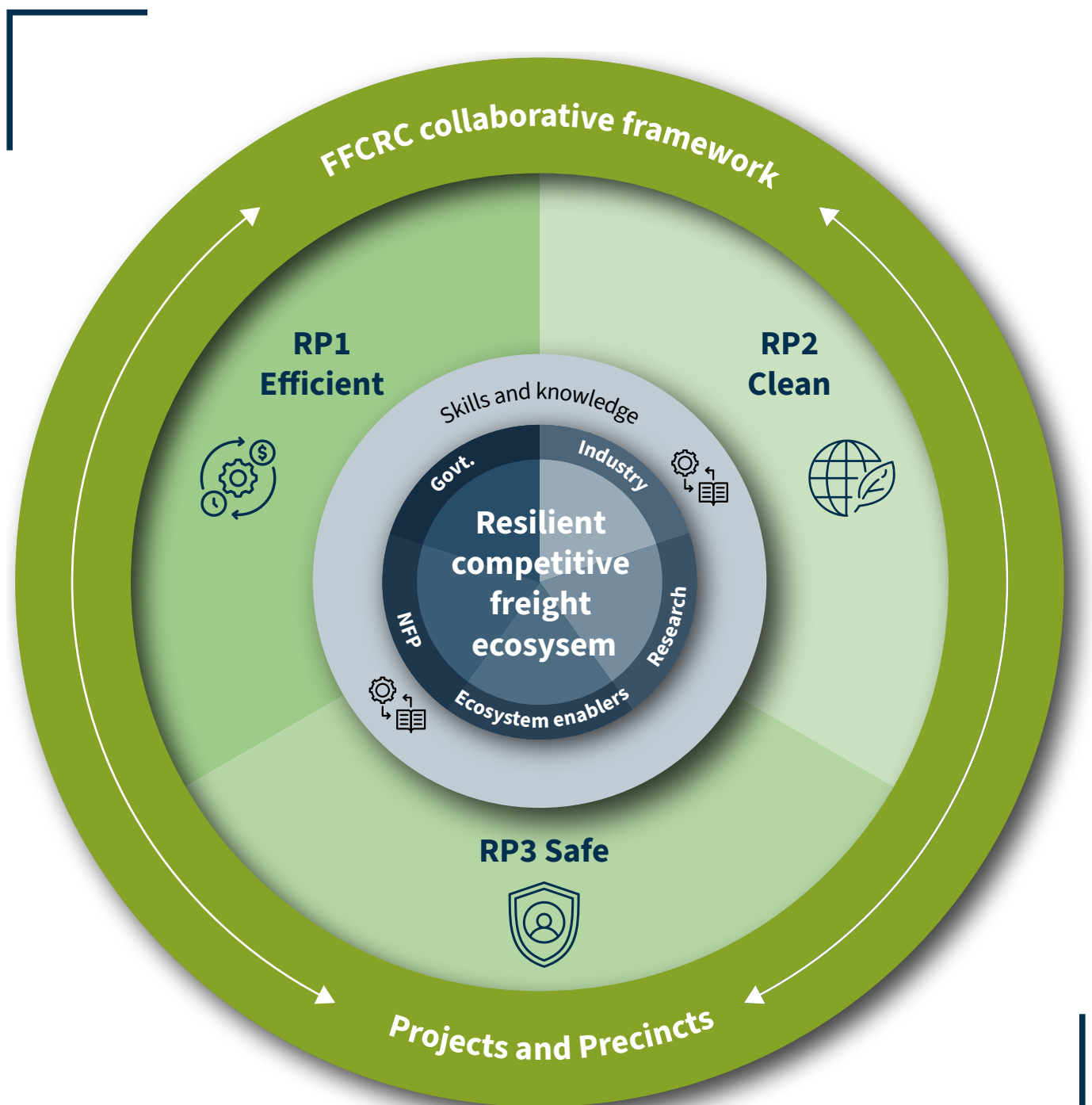
In short, everyone involved in the movement of goods in, out and around Australia. Freight is the scaffolding that enables the success of our businesses and our communities. As such the ecosystem has many stakeholders represented in the diagram below.



Building the ecosystem

As the key to a successful ecosystem is cooperation, we need a mechanism that brings together the constituent entities to help develop and transform the sector through a coherent program of work.

The Future Freight CRC collaborative framework supports collaborations and boosts innovation in three key impact-focused areas.



What we will do: The R&D program

The FFCRC R&D program focuses on developing collaborative projects and precincts.

Trial, pilot, study, test, design, develop, scale, evaluate and more: FFCRC's applied approach lends itself to a wide range of project possibilities. All supported by government funding and collaboration expertise.

Projects bring together a minimum of three partners (including FFCRC) to undertake R&D activities with specific outcomes in mind as identified by the industry or government partner(s). The outcomes will provide benefit to project partners as well as the freight sector as a whole.

Precincts/corridors are on the ground sustainable developments that feature a low emissions transport component. Precincts offer a 'location or geography' for collaborations between multiple parties to occur. They may be focused on new energy sources, multimodal optimisation/efficiency, automation and more, and they will be scalable, transferable and they will demonstrate sector improvements in a defined area.



Future Freight R&D: industry-led and utilisation focused

Three impact-oriented themes form the basis of the R&D program. These complement each other and necessarily intersect while contributing to the 'ecosystem' overarching goal.

These R&D themes will operate across three levels:

- Transport mode including vehicles and components
- Infrastructure and networks, physical and digital
- Freight ecosystem – developing a dynamic and evolving freight system that brings together key players

As the CRC will operate over ten years, it can accommodate a program of work that delivers in the short, medium and longer term with later projects building on earlier foundation work where needed.





Efficient

Efficient freight underpins the success of all our industries and our economy. Better and advanced use of data will drive efficiency gains that create reliable responsive networks for competitive businesses.

- Develop advanced digital platforms and tools to enhance visibility and transparency.
- Identify and enable mode integration/shift opportunities sector wide.
- Generate policy recommendations for data standardisation and cross-jurisdictional harmonisation.
- Improve asset utilisation and infrastructure access.
- Develop nationally recognised standards and frameworks.



Clean

The movement of goods generates a large amount of emissions and. We need to rapidly progress development of, and roll out technology to mitigate the impact this is having. It is expensive, but by cooperating we can introduce and scale solutions in more manageable ways.


- Design, develop, trial and scale low-emission data technologies for freight.
- Develop approaches to roll out of infrastructure supporting low emissions technology.
- Advance uptake of alternative fuels tailored for Australian freight requirements.
- Enable policy development and regulatory frameworks that support investment in, and uptake of, clean technologies.



Safe

The Freight sector has long had a strong focus on safety. Technology and energy shifts present new and not very well understood risks that need to be handled. At the same time advanced data techniques can provide new ways of keeping people safe.

- Develop and test new safety technologies and tools.
- Design guidelines for infrastructure safety improvements along high-risk freight corridors and terminals.
- Evaluate and mitigate risk from new freight technologies.
- Create future ready insurance and business models for freight.
- Develop safety policy and regulatory recommendations to support the technology transition.



Workforce, skills and knowledge

Technological transformation, new energy sources, digitalisation and multi modal configurations are introducing a shift in the skills and knowledge needed to develop and support a successful freight ecosystem. Jobs are changing.

FFCRC is committed to tackling knowledge gaps to unlock new thinking for the sector and developing the workforce through training and skills initiatives. This program is being developed in consultation with industry to ensure it meets existing and future needs, addressing strategic knowledge gaps across age ranges, skill levels and geographies.

Training and Skills

- Undergraduate – industry program and linkages
- TAFE collaborations
- Accessible skilling – micro-credentials

Addressing knowledge gaps

- Strategic PhDs
- Conferences and seminar programs
- Special interest communities

How we operate

Our operating model is best characterised as:



Applied: We deliver highly applied R&D for real-world outcomes and impact. No project starts unless we know how outcomes will be used. We don't seek a stake in IP that is created. The IP rests with the organisation that will use it, usually the lead industry partner.



Transparent: We ensure that partners are informed about their progress and R&D spend regularly and whenever requested. No funds are applied to projects without partner endorsement. Like all CRCs, we will follow strict governance and reporting requirements.



Connected: We play a vital role in connecting companies and people to maximise what they get out of the centre, and to forge long term relationships that continue to deliver well into the future.



Neutral: As a government-funded NFP, FFCRC supports outcomes as defined by its partners. We are technology agnostic but provide information and support on approaches to take. We do not have favoured research partnerships – we help partners to evaluate and engage the best expertise for your task from our research partner cohort.

For more information on how FFCRC will operate visit www.futurefreightcrc.com.au/about

Partnering

Every partner is unique but will receive common key benefits from choosing to undertake R&D through the centre.



Funding for projects

From government and collaborators



Reduced R&D risk

With proven process and success rate



Industry-led approach

Projects tackle YOUR challenges



Best expertise

You choose, we can help you decide



Useful connections

In the sector and related areas



Industry intelligence

Information on latest developments

To benefit from the FFCRC approach, partners need to:

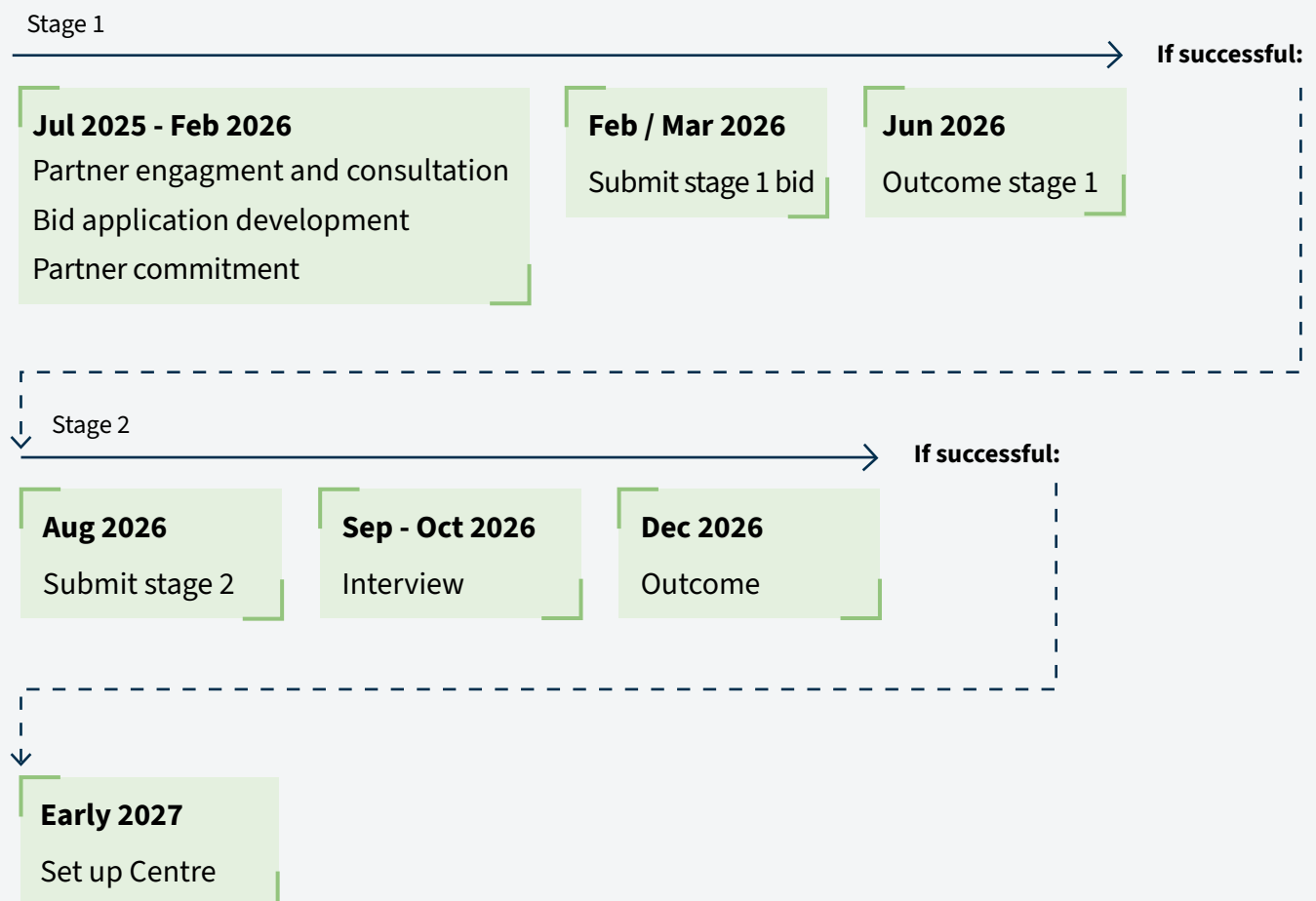
- Be looking to address challenges through activities supported by the centre
- Have a clear idea of how the outcomes will be used
- Make an investment into the centre (time and funds)

Timeline

We aim to start the centre from early 2027 which means we are following a specific timeline to deliver a compelling proposal to the Australian Government. This requires partners to express interest in 2025 with the bid process happening throughout 2026.

Approximate timeline with key dates

Dates may vary depending on Australian Government



Our team

Between them, the bid leadership team has a long history of facilitating transformational R&D collaborations, including establishment and operations of other successful CRCs such as Capital Markets CRC, Digital Health CRC, iMOVE CRC, SAAFE CRC and more.

This extensive knowledge of the landscape means we are able to:

- Help potential partners establish and then realise their objectives as partners in FFCRC.
- Get the centre off the ground quickly and effectively, generating outcomes sooner.
- Know how to both avoid pitfalls and get the most out of the CRC model for the entire lifecycle of the centre – from bid to wind up.

Bid leadership



Lee-Ann Breger
Bid Lead



Jeff Kasparian
Bid Co-manager



Alyssa Bates
Bid Co-manager



Prof. Hadi Ghaderi
Research Lead

Get in touch





We are currently still bringing new partners into the Future Freight CRC to further develop the freight ecosystem and maximise the benefits for all partners.

Please contact us to discuss your goals and see if this is the right mechanism for you.

 Info@futurefreightcrc.com.au

 More info on how it all works on the website www.futurefreightcrc.com.au

 Call us on **0415 157 220** (Lee-Ann)

 Find the answer to common questions about the FFCRC opportunity:

 www.futurefreightcrc.com.au/faq

