

Prospectus

Round 23 Stage 2 Application
Submitted 3 Feb 22



The Sovereign Manufacturing Automation for Composites

Cooperative Research Centre
(The SoMAC CRC)



“Advanced composites technologies targeting Australia’s
Sovereign Manufacturing Priorities”

Contents

- Introduction
- Opportunity Context
- Drivers & Track Record
- Vision
- Mission
- Industry Investment
- Economic Benefit
- What is a CRC?
- Cross-Industry Research
- Who might be involved?
- Funding
- Governance
- Timing and Process
- Next Steps
- Contact Us



**Supported by Industry
Growth Centre**

The SoMAC CRC Consortium warmly welcomes:



**Professor Abby Bloom
Chair (Designate)**

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**Dr Andrew Beehag
CEO (interim)**

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Additional Background:

[Refer to Appendix](#) – AMAC's Track Record

Advanced Manufacturing of Composites

... addressing sovereign risks and building Australia's future capacity.

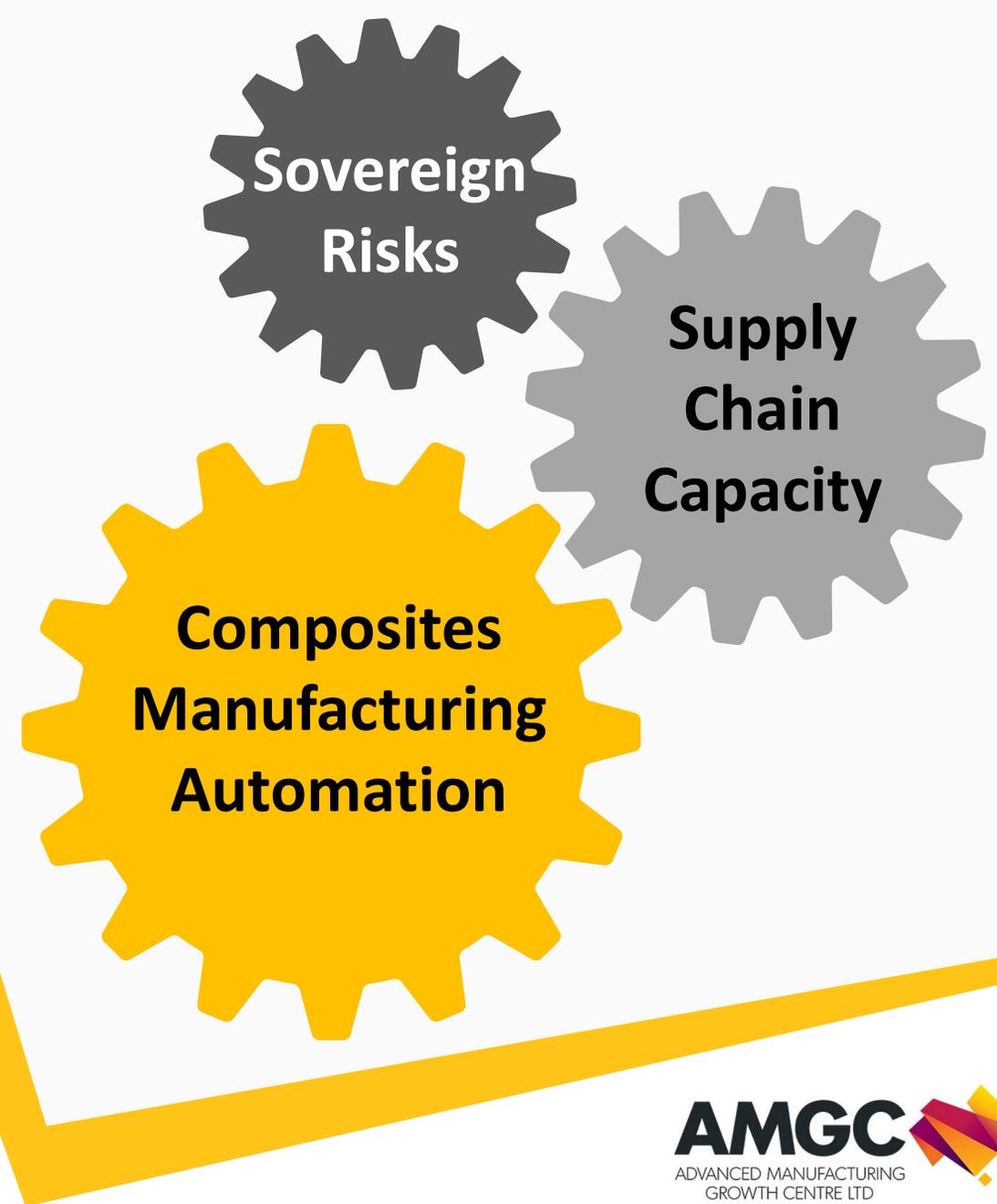
“Manufacturing is critical to Australia’s economic future, to the prosperity of our regions and to the capabilities that underpin the success of so many other industries.”

Prime Minister Scott Morrison

“By playing to our strengths, strategically investing and boosting the role of science and technology in industry, we can open up new markets and take more of our quality products to the world. This Strategy sends a clear signal that not only is Australia open for business, but we mean business.”

Minister for Industry, Science and Technology

Minister Karen Andrews



Drivers & Track Record

The SoMAC CRC Drivers

- ✓ Localised manufacturing (sovereign secure) to offset international supply chain dependencies.
- ✓ Unprecedented demand for rapid prototyping of composites and promoting digital exports.
- ✓ R&D of composites to enable capacity – industry activity is growing across the target sectors!
- ✓ Higher Education – upskill and reskill the composites industry workforce and creating the next generation of ambassadors.
- ✓ Foundation partners include both international and Australian supply chains participants.

Advanced composites technologies targeting Australia's Sovereign Manufacturing Priorities



Pre-Existing AMAC Sectors



Industry & Academic R&D Collaboration Model

- ✓ Platforms of Capability uniting SoMAC Partners
- ✓ Pre-existing and proven research expertise, industrial and academic partnerships in each of the target sectors below.
- ✓ Collaboration R&D projects, integrated with Industry Partner commercial activities.
- ✓ The genesis of The SoMAC CRC follows on from the joint-successes of:
 - ✓ The ARC Training Centre for Automated Manufacture of Advanced Composites located at UNSW*.
 - ✓ Carbon Nexus at Deakin University
 - ✓ Foundation Research and Industry Partnerships including UNSW, Deakin, USyd, UW, UQ, RMIT, ANSTO

*Further details on AMAC's track record are included in the Appendix to this Prospectus.

Vision



SoMAC CRC's vision is to transform Australia's established composite technologies capability into Sovereign leadership, creating a world-class, highly automated, digitally-enabled, network of designers, manufacturers and service providers.



Our Mission

- 1** Enabling composites automation to improve the competitiveness, productivity and sustainability of Australian industries.
- 2** Industry-focused education to upskill and reskill Australia's workforce, including the training of next-generation composites ambassadors.
- 3** Increasing research and development (R&D) capacity in small to medium enterprises (SMEs) to target high yield commercialisation outcomes, job growth & economic prosperity.

Technologies to enable composites automation targeting Australia's Sovereign Manufacturing Priorities



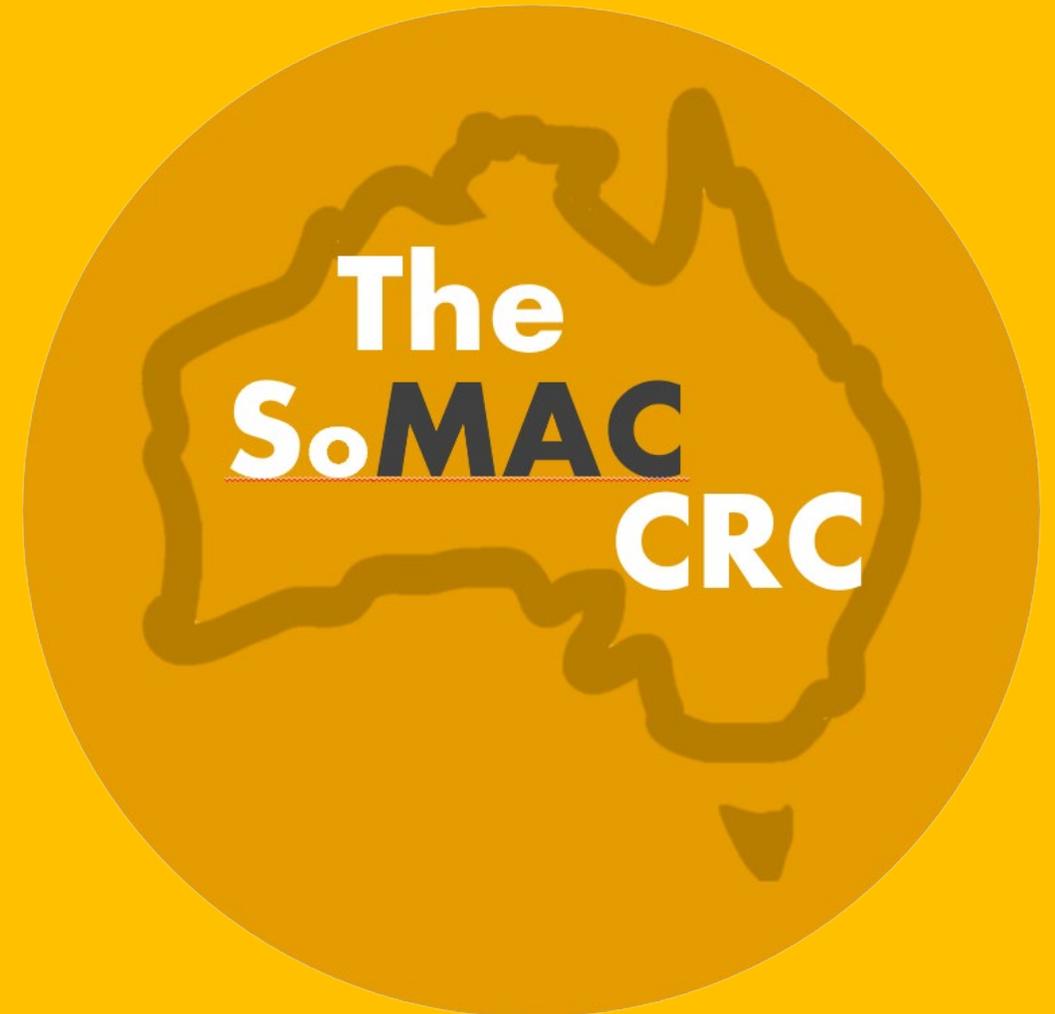
The Challenge

Australia's National Priorities have identified significant opportunities in manufacturing automation, and potential for industry growth across selected composites manufacturing sectors:

- Increase sovereign manufacturing capacity.
- Enable supply chains and develop critical mass in composites technologies for the cross-sector themes.
- Develop ambassadors of advanced composites manufacturing for the future.
- Attract international partners and draw upon Australia's regional stability, security and access to international markets.

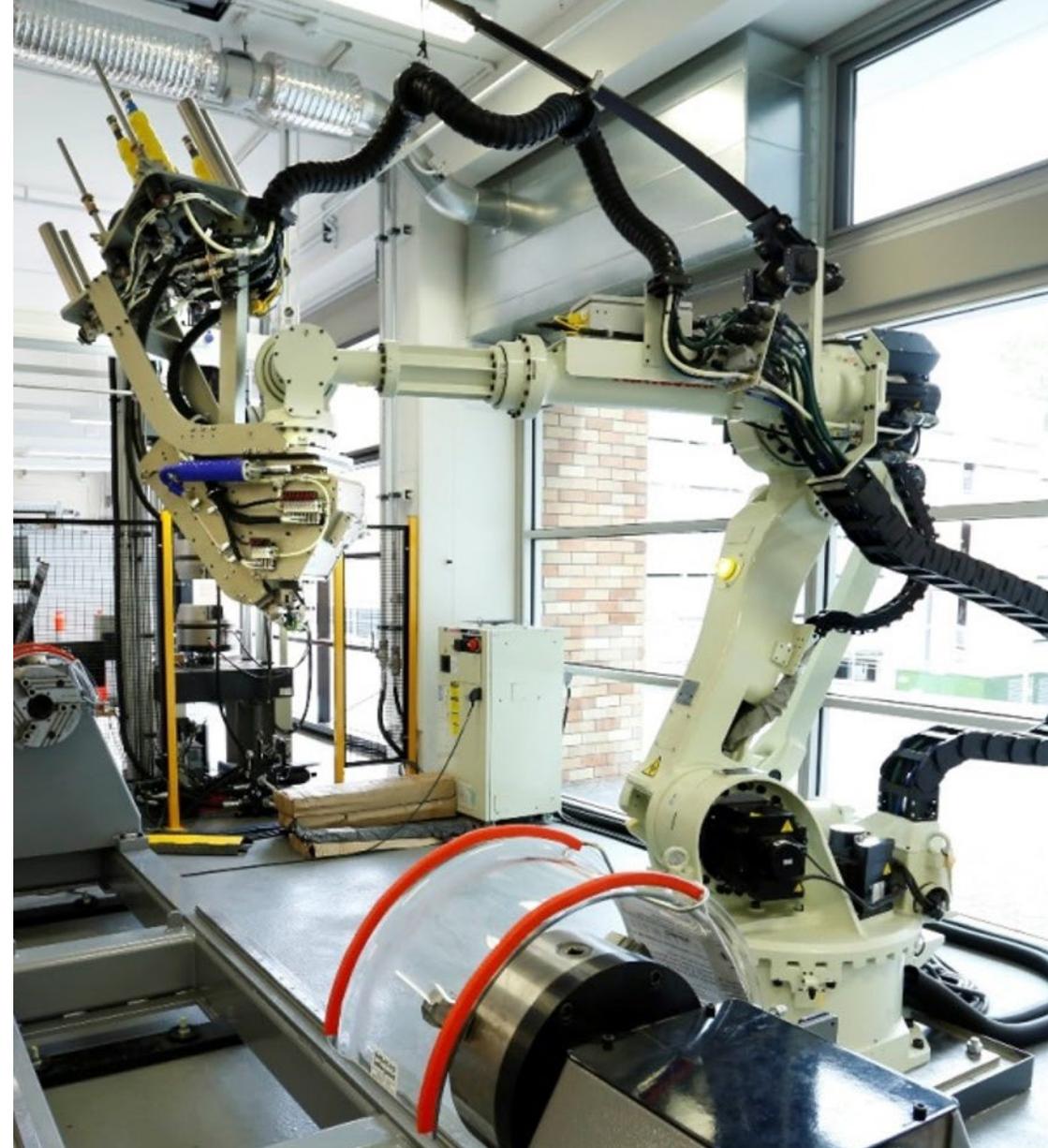
There has never been a better time to ignite our Sovereign capabilities, and claim Australia as the destination of choice for advanced manufacturing, enabled by local composites technology innovation.

National Response



The Opportunity

- ✓ The SoMAC CRC has the potential to immediately address Australia's national challenges, enabling manufacturing automation for the composites sector. In the post-Covid19 recovery, and for the future, facilitation of rapid innovation across multiple sectors.
- ✓ Australia has:
 - World-class investment and industry support for fostering innovative R&D programs.
 - Unprecedented opportunity to position for emerging "value-add" in the manufacturing sector.
 - An opportunity to attract international industry and stimulate local supply chains to deliver best in class outcomes, benefitting local communities.
- ✓ Upscale the existing success of working relationships with industry and academic partners and its operating model/governance.



Pre-existing AMAC Infrastructure

Industry Transformation

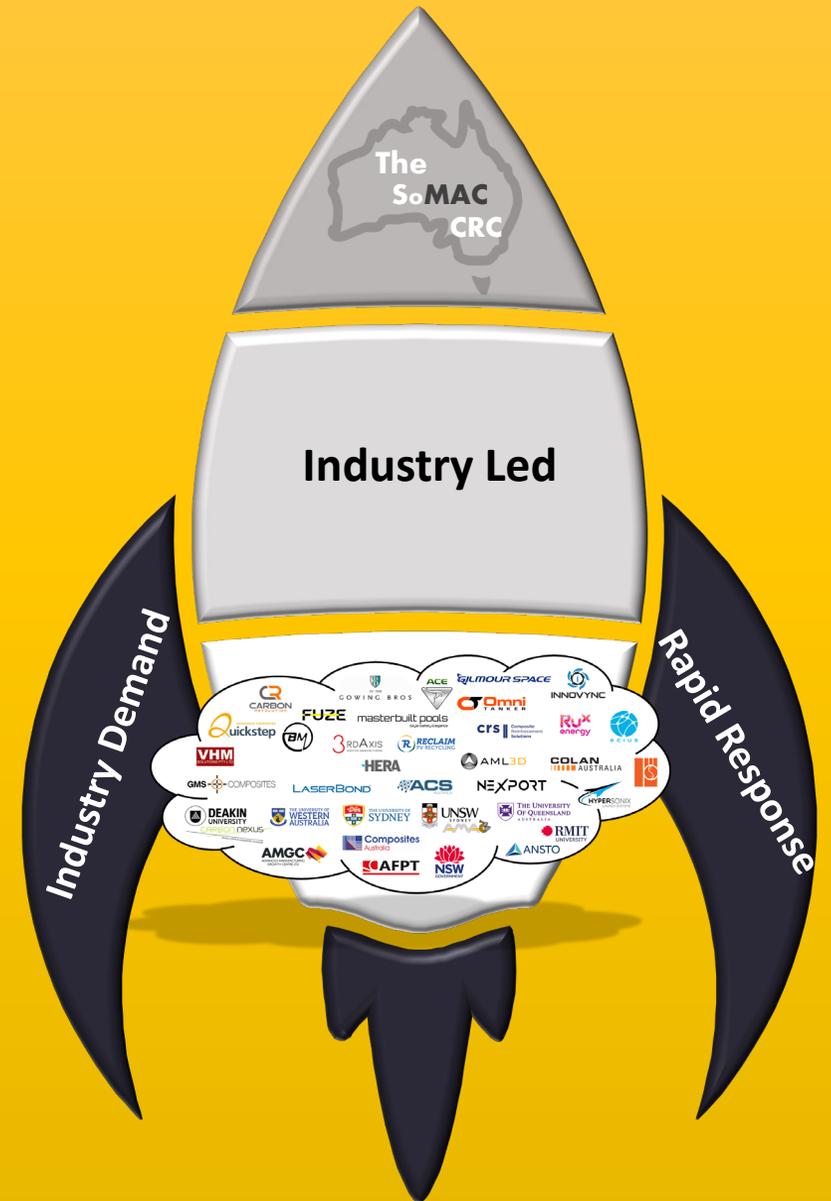
The SoMAC CRC will upscale pre-existing success by tapping into industry leadership, creating critical-mass, innovation ambassadors, strategic research partnerships, solidifying Australia's reputation for supply chain enablement and rapid prototyping of advanced composites technologies.

... to transform Australia's established composite technologies capability into a world-class, highly automated, digitally-enabled, network of designers, manufacturers and service providers.

Advanced composites technologies targeting Australia's Sovereign Manufacturing Priorities



Pre-Existing AMAC Sectors



Economic Benefit

Preliminary economic modelling over the next 15 years indicates that as a result of SoMAC the composites sector is likely to triple both its employment and GDP outcomes driven in part by the uncharted potential to capitalise on emerging sectors that need advanced composite materials such as the Hydrogen Economy, Marine, Defence, Aerospace, Space, Civil Infrastructure, Automotive, Transport, Mining, Oil & Gas and Sport & Recreation. SoMACs incubation formula which draws on international best practice, will help maximise value-added benefits to Australia's diverse composite supply chains to meet the emerging demand.

“Triple the Sector”

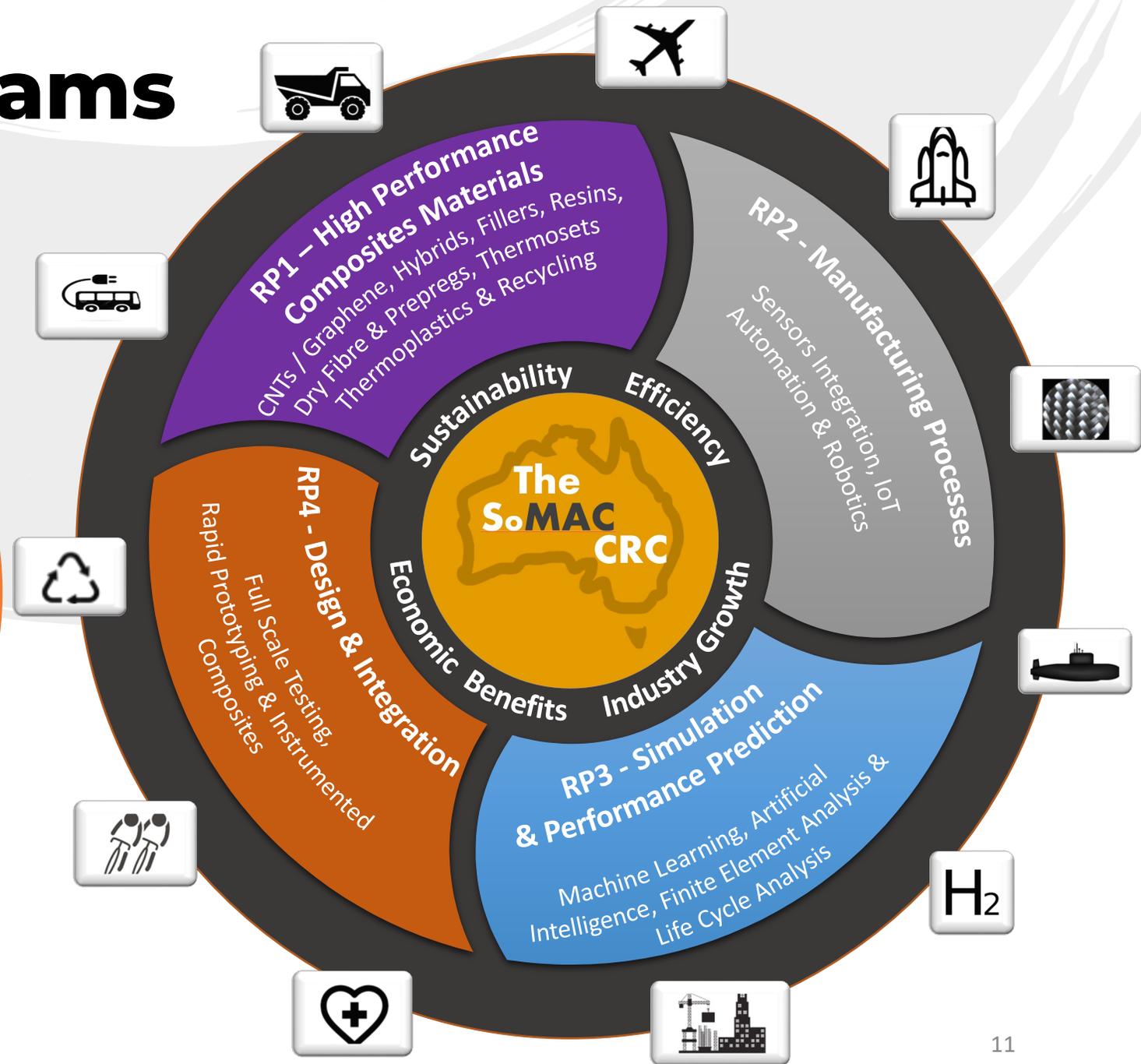
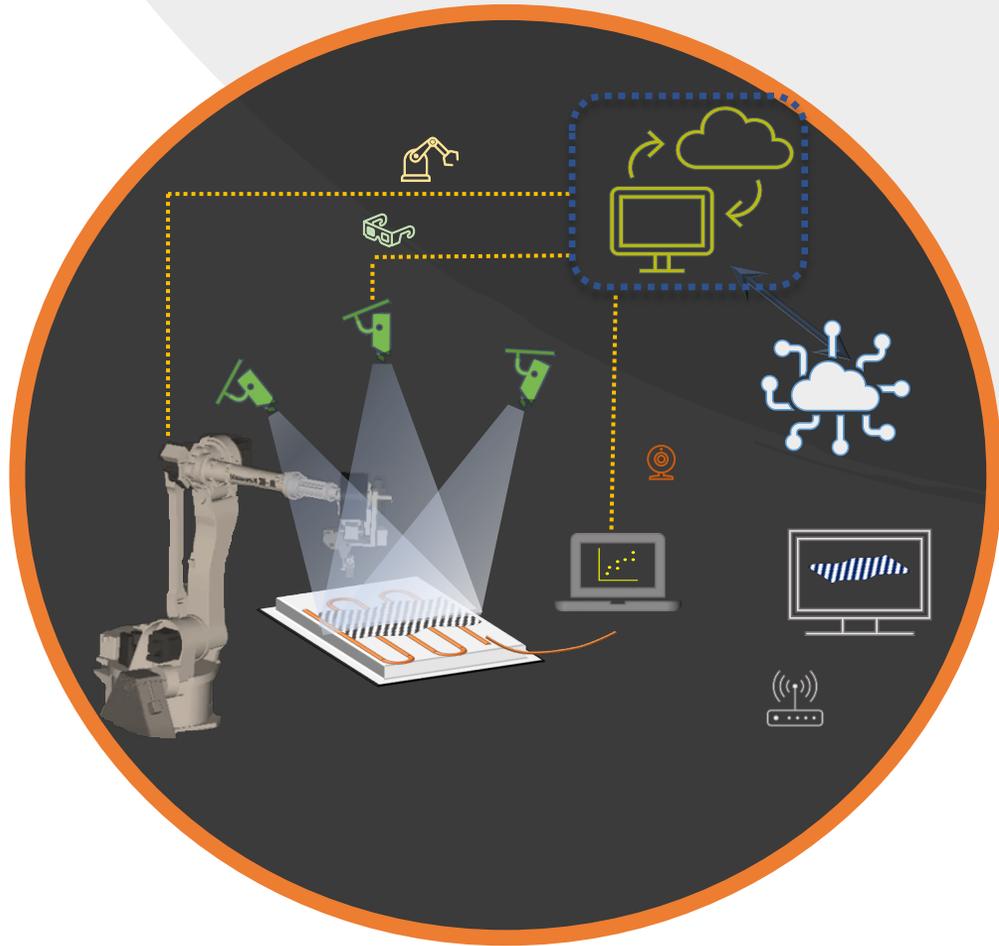
Triple both its employment and GDP outcomes driven in part by the uncharted potential to capitalise on emerging sectors .

Advanced composites technologies targeting Australia's
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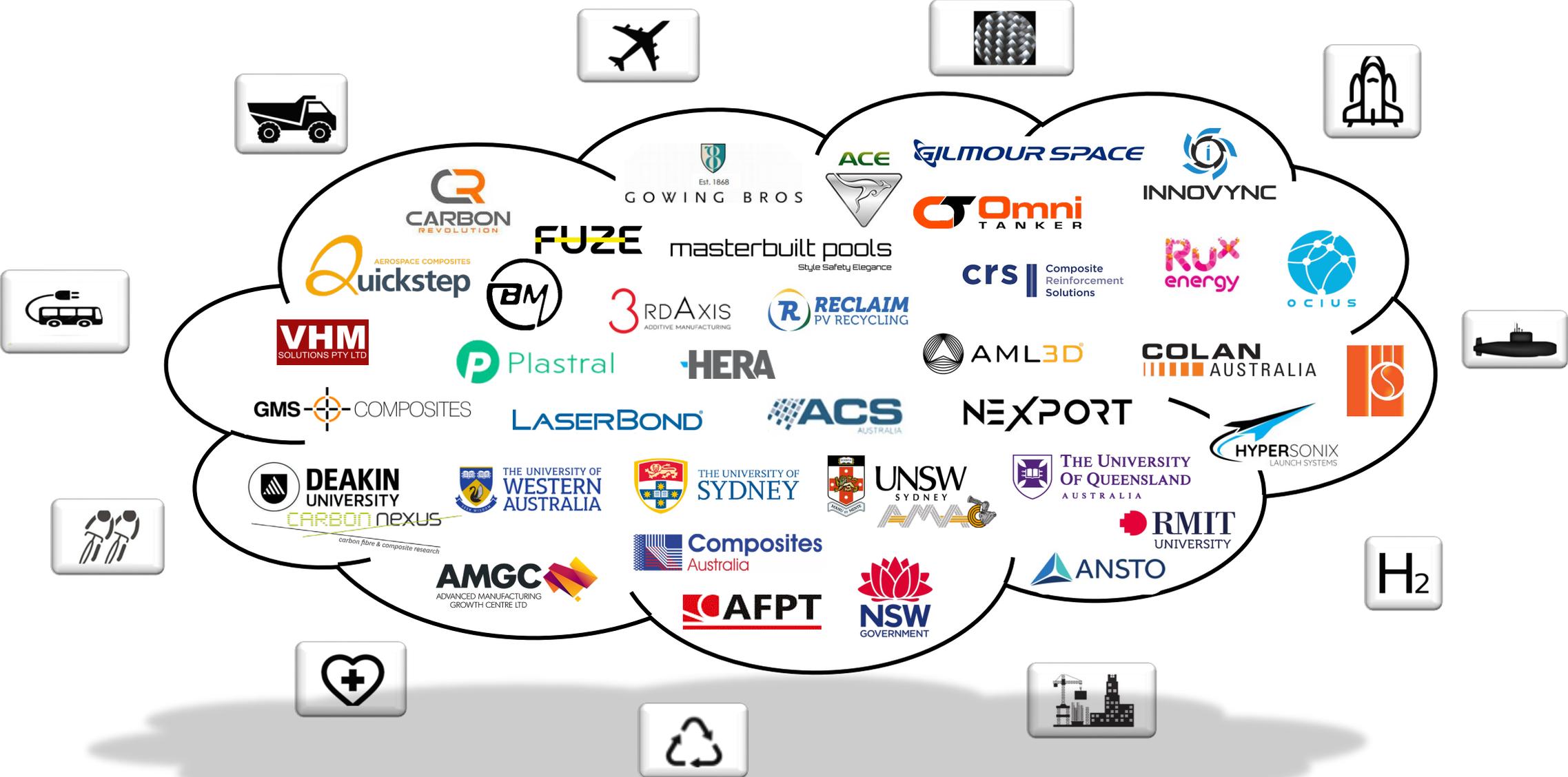


SoMAC Partners are already engaging in these sectors

Research Programs Cross-Industry



Stage 2 Bid Partners - The SoMAC CRC



Stage 1 Funding Update

The SoMAC CRC Stage 2 for Round 23 is now submitted. We sincerely thank the Stage 2 foundation partners who have supported the formation of the SoMAC Vision and will be instrumental in delivering industry innovations.

Bidding for a CRC is a highly competitive and resource intensive process. Foundation partners for the SoMAC CRC are ranked as a core*, supporting or entry participant. Project planning will be on a case-by-case basis, to ensure that the CRC's business model meets partner needs and aligns with research themes.

Over the course of Stage 2, the consortium has shaped the CRC's business model, governance and identified significant platforms of economic impact.

Once awarded, the participation agreement and inaugural project agreements will be formed.

*Academic core participant's level is according to the scale of related industry subscription. Otherwise, for lower-level industry engagements, academic institutions join the bid as a supporting participant. For academic institutions, an apportioned annual subscription applies. As a guideline, research services leverage starts at 3:1, and the average across the portfolio is planned at 4:1. Higher levels of leverage will apply for academic partners bringing industry projects approaching AU\$10 million in industry partner cash contributions, and with higher levels of cash-pool activity.

Seed Capital

Seed subscription has been supported by academic partners to cover The SoMAC CRC Stage 1 & 2 bid expenses.

This support is greatly appreciated by all partners in the consortium

\$7m cash contribution p.a. via Projects

\$500k-\$1M p.a.

(core industry participant)

\$250-499k p.a.

(supporting industry participant)

\$50-249k p.a.

(entry industry participant)

Partner cash contributions totaling

\$73M

Targeting
~\$7M p.a. over 10 years
(plus similar level of in-kind contribution)

CRC budget total

\$260M

Matching participant cash of ~\$7M p.a.
+ in-kind contributions equivalent to
~\$12M p.a. + CRC funding ~\$7M p.a.

Governance

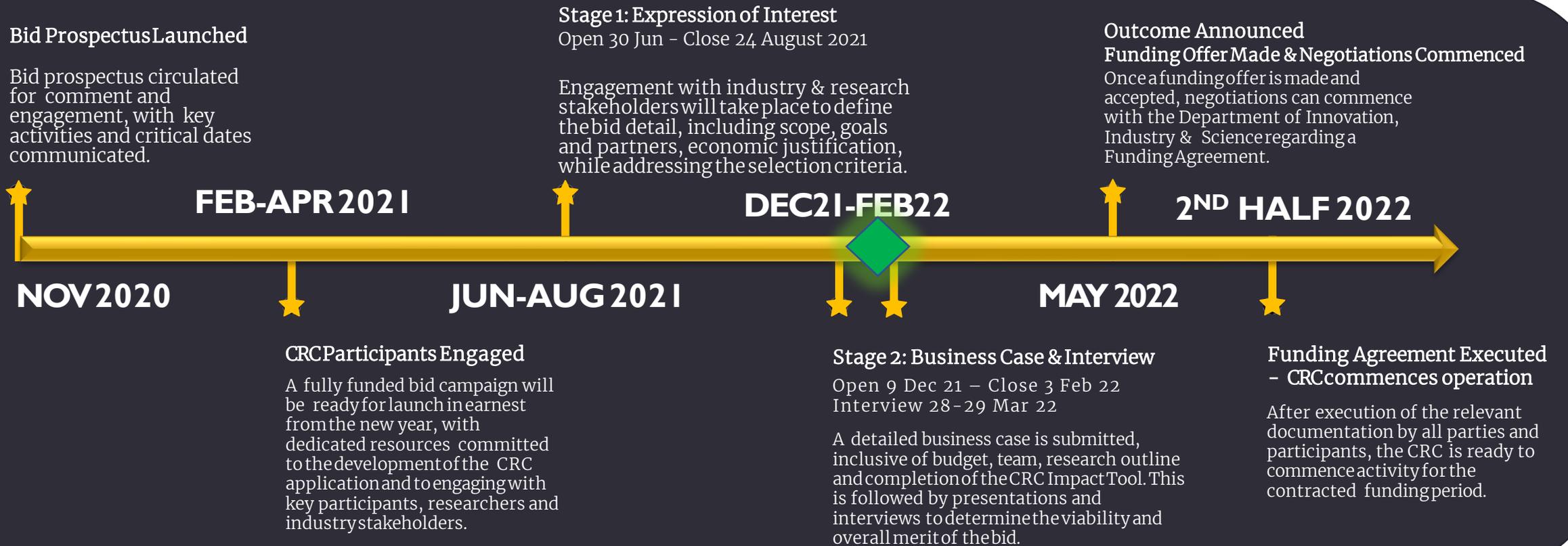
The SoMAC CRC will offer flexible IP and commercialisation agreements. In principle, IP resulting from The SoMAC CRC funded projects will be owned by the respective CRC participants only and beneficially distributed according to the project shares and terms defined in individual Project Agreements.

The SoMAC CRC will be an incorporated company by guarantee with a predominantly skills-based Board of Directors, including executive and non-executive appointments, that will provide oversight of the CRC's direction, activities and performance, as follows:

- Core participants will be represented on a Participants Committee and will also advise on Board positions.
- The CRC will directly retain HQ operations to support IP, management, and research co-ordination, utilising a Research Program Office model.
- The company will be a 'not-for-profit' company, and will seek charitable status, with no net tax is likely to be payable provided all income is expended on research, training and related activities. This will enable direct benefits to flow to participants and can allow flexible IP and licensing arrangements.



Timing and process



SoMAC Bid Leadership

We're hitting the ground running, with the consortium united to deliver Australia's Sovereign capabilities. We are focused on igniting the advanced composites manufacturing sector.

Feel free to get in touch via: composites@unsw.edu.au



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[Link to download Prospectus Documents](#)

