



Cooperative Research Centre for

Intelligent Manufacturing

Catalysing next generation Australian
manufacturing collaborative research,
development and innovation

Through collaborative investment in technological change and innovation, the new Cooperative Research Centre (CRC) for **Intelligent Manufacturing** will deliver productivity, growth and transformation to Australia's manufacturing sector, which is vital to our economic health, resilience, and future sustainability.

A new Manufacturing CRC: The Investment Opportunity

1. Be a leading partner in next generation manufacturing research, development and innovation
2. Access 1:1 (dollar for dollar) matched cash funding from the CRC for industry-led collaborative projects of between 2 and 5 years in duration, commencing from mid-2022 onwards
3. Enhance the industry cash investment to leverage a further 3x multiple on cash invested (typically total project investment is more than 5x the industry cash contribution)
4. Create unique pathways to new products, processes, services and markets through development and adoption of technology and transformative business models
5. Access world class research teams, infrastructure and expertise, and build immediate and complementary R&D and innovation capability and capacity
6. Join a network of ambitious and progressive business and research leaders in manufacturing
7. Accelerate an IP and commercialisation strategy and deliver a substantial return on investment
8. Leverage the CRC business model and team working to support progress, drive outcomes and reduce risk, through proven project agreements, governance, milestones and reporting.
9. Create high value and meaningful jobs, and career pathways for research students
10. Help lift the scale, capability and resilience of SMEs and supply chains

Why the CRC for Intelligent Manufacturing

The next wave of growth in Australian manufacturing is required to create long-lasting change and to help manufacturers become more competitive, resilient, scale up and able to tap into export markets.

Investment in manufacturing leads to growth in design, engineering, R&D, innovation, services, high value jobs and exports. A healthy and vibrant manufacturing sector creates opportunities and fuels the Australian economy in prosperous times but also mitigates risks by keeping the country functioning in times of crisis.

The development and application of next generation manufacturing technologies (automation, digitalisation and applied artificial intelligence) coupled with leadership capability building will be the catalyst for this growth and transformation, and will be the focus of the CRC for Intelligent Manufacturing.

Outcomes of the CRC for Intelligent Manufacturing

Through collaborative investment and application of cutting-edge technology and knowledge, the CRC for Intelligent Manufacturing will:

- develop and apply next generation, connected and 'intelligent' manufacturing technologies (Industry 4.0+) as system-wide business model enablers
- advance manufacturing automation and digitalisation, including application of industrial Artificial Intelligence (AI)
- create transformative and sustainable business models and deliver commercial and other outcomes
- assist in furthering the national network of manufacturing technology, collaboration, and innovation hubs to partner businesses with research organisations
- further open access for manufacturers to people, talent, expertise and R&D infrastructure within Australian Universities and the CSIRO
- unlock sustainability and circular economy opportunities, including across regions and through collaboration
- accelerate design, technology development, adoption and innovation leadership capability within SMEs to increase momentum
- mitigate the impact of future shocks to global and local manufacturing systems by helping to drive these investments through the National Manufacturing Priority Sectors
- help build Australia's sovereign manufacturing capability by adopting a design and engineering led approach to products, processes, systems and business models, to drive scale and resilience
- provide a foundation to help supercharge the industries where Australia has competitive advantage and to help maintain and secure global leadership in these sectors.

What is intelligent manufacturing

Intelligent manufacturing encompasses all stages of modern manufacturing from design, research and engineering, through production, logistics, customer and consumer use and including end of life, seeking to optimise outcomes by embracing advanced and system wide information and manufacturing technologies. Intelligent manufacturing creates opportunities for new business and new operational models based on intelligent science and technology that significantly enhances the design, production, management, and integration of the whole life cycle of products, processes and services, as well as managing complexity and enhancing value.

While the Industry 4.0 journey thus far has been about the adoption and utilisation of discrete digital enabled technologies to capture and create value, the next horizon of Industry 4.0 embraces full data driven and digital models helping to deliver autonomy, interoperability and sustainability. This increasingly supports the creation of high value and high worth jobs as the human, machine and cyber worlds continue to converge.

The next generation of Industry 4.0 will deliver increased system agility, flexibility and manufacturing resilience, along with mass customisation, better quality, traceability, and improved productivity. It will enable manufacturers to embrace the opportunity of designing and producing increasingly individualised products with shorter lead-time to market and of higher value, complexity and quality.

Intelligent manufacturing combines intelligent design and business models using intelligent processes creating intelligent and connected objects that are able to sense, act, and behave within a smart environment. It embraces the use of machine learning and broader applied industrial artificial intelligence.

Through the adoption of these next horizon technologies, intelligent manufacturing creates the opportunity to build resilient capabilities that can adapt to rapidly changing market conditions and be applied to solve new problems and challenges.

What is a Cooperative Research Centre

The CRC Program is one of the largest, longest standing and most successful grant funding programs in Australia. It is a significant component of the national innovation system supporting medium to long-term collaboration between the producers and end users of research and innovation.

The aim of the program is to build critical mass in research ventures between end users and researchers which tackle clearly articulated, major industry-led challenges that deliver significant economic, environmental and/or social benefits to Australia.

CRCs funded through the program are independent entities, established and governed as incorporated companies limited by guarantee and comprise industry led collaborations that aim to improve the competitiveness, productivity, and sustainability of Australian industries, especially in government priority areas.

CRCs foster high quality research to solve industry-identified problems through industry-led and outcome-focused collaborative research partnerships between industry entities and Australian research organisations, and encourage and facilitate small and medium enterprise (SME) participation in collaborative research.

Funding typically ranges between \$10 million and \$70 million for each CRC. With more than 230 CRCs being funded since the program's launch in 1990, the Australian Government has committed more than \$4.4 billion in CRC Program funding with a further \$13.5 billion in cash and in-kind contributions from CRC participants.

Why Australian manufacturing matters

The Australian Government's Modern Manufacturing Strategy is a whole-of-government strategy to help Australian manufacturing scale-up, become more competitive and resilient — creating jobs for now and future generations. The vision is for Australia to be recognised as a high-quality and sustainable manufacturing nation.

A key pillar of the strategy is making science and technology work for industry, which includes

- aligning research and innovation capabilities and programs to priority areas, being Australia's National Manufacturing Priorities
 - » Resources Technology & Critical Minerals Processing
 - » Food & Beverage
 - » Medical products
 - » Recycling & Clean Energy
 - » Defence
 - » Space
- backing digital transformation

The strategy is for industry, by industry, with government and industry coming together to make bold changes to create strong, resilient, thriving and internationally competitive manufacturing businesses, with the following goals:

- **2 years** - creating the business environment to support manufacturing jobs and encourage new investment
- **5 years** - supporting a more industry-focused science and technology system which helps boost productivity, scale and competitiveness
- **10 years** - locking in productive and competitive firms with high impact sectoral growth.

The CRC will help the Australian Government to achieve its goal for partnerships between government, industry and the science and research community to develop manufacturing to deliver positive economic outcomes and create jobs.



Why manufacturing research and innovation is so vital for Australia

A healthy and growing manufacturing sector is vital for Australia's economic prosperity, sovereign capability, future resilience and sustainability. Manufacturing fuels and drives the economy in prosperous times, creating opportunities and keeping the economy functioning in times of crisis. Investing in manufacturing research and innovation positions Australia as a global technology and business model leader.

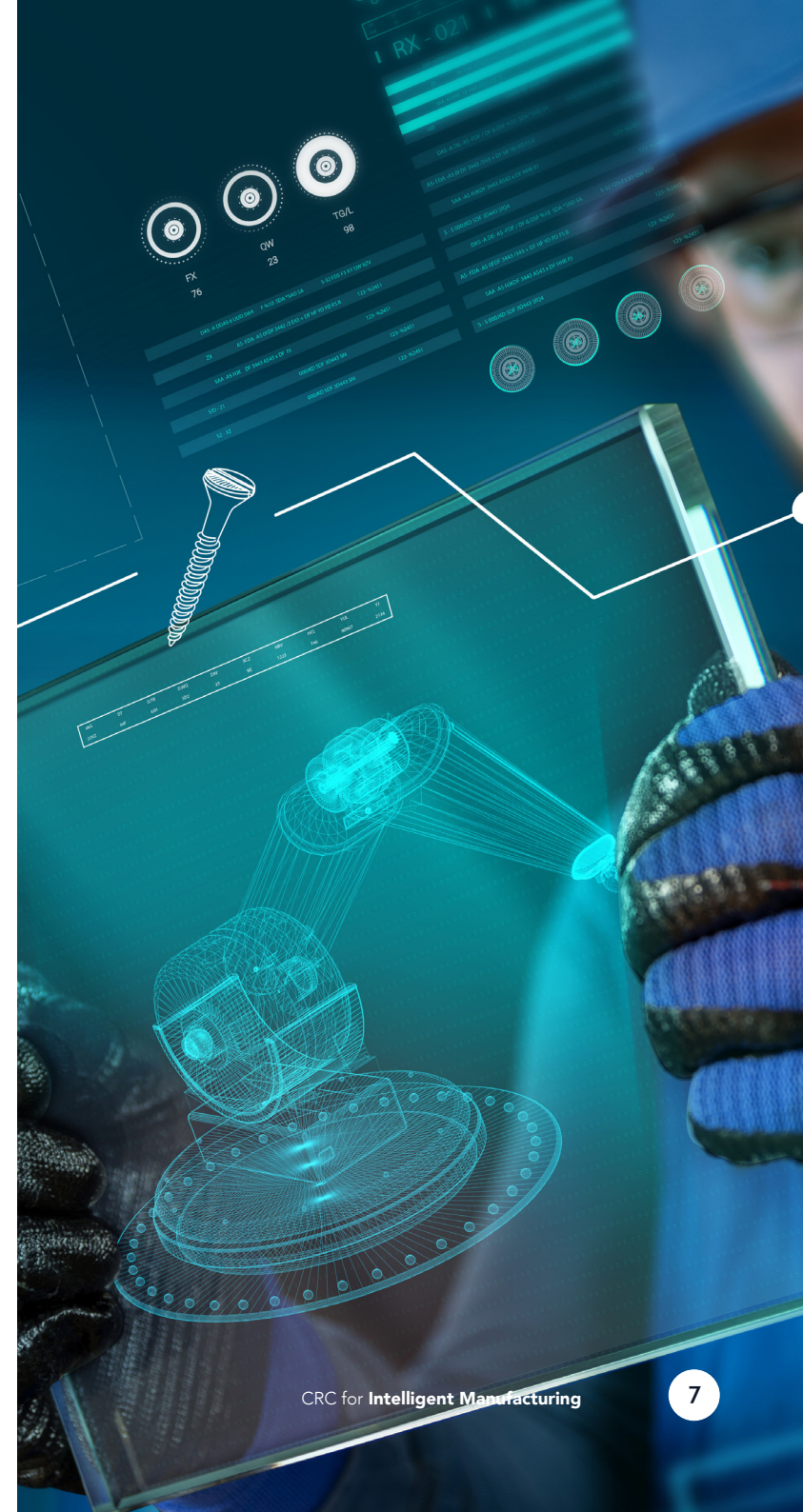
As summarised in the Modern Manufacturing Strategy, Australian "local success stories are manufacturers that compete on value rather than cost alone - they have lifted their competitiveness and productivity by investing in design, new technologies, R&D and effective business practices. However, when compared to similar economies, not enough of Australian manufacturers are scaling-up."* Manufacturing has not yet evolved to a stage where production is geared towards more complex, high value-add and intelligent manufacturing at scale. More of Australia's manufacturers have an imperative to make the shift to high-value revenue streams and build scale, supply chain agility and self-sufficiency.

Production will always be important but great value can be gained for Australia's manufacturers from activities both pre and post-production that enable scale of production and high skill, high value work.

It is activities like R&D, design, logistics, software, sales and services that play well to Australia's strengths.

Investment in the development and application of next generation manufacturing technologies (Industry 4.0, automation and digitalisation) - coupled with leadership capability building and transformative business models to 'jump horizons' - will be the catalyst for this growth, resilience and sustainability. Collaborative investment will intensify and accelerate this transformation journey to deliver significant value to those with ambition and willingness to invest.

The CRC for Intelligent Manufacturing will help lead and drive the research, development and innovation challenge through designing and facilitating industry-led, collaborative investment with many of Australia's leading research organisations. Through four research programs, and in alignment with the National Manufacturing Priorities, sovereign and intelligent manufacturing capability will be developed to increase Australian manufacturing scale, agility, resilience and self-sufficiency, as well as developing exemplar design and manufacturing businesses with business models to take complex and high value products, process and services to global markets.



* Make it happen: The Australian Government's Modern Manufacturing Strategy

Research Programs

The CRC for Intelligent Manufacturing will have four programs each embracing projects and initiatives that solve problems and deliver outcomes to both the project partners and provide benefits to the broader Australian manufacturing industry. Collaborative projects will be designed and industry-led, taking proof of concepts through to pilot line and commercial investment readiness - from Manufacturing / Technology Readiness Level (MRL/TRL) 4 – 7 *.

* Manufacturing Readiness Levels
(aligned with Technology Readiness Levels)

Research Program 1



Manufacturing digitalisation, applied artificial intelligence and data driven business models

Research Program 3



Design for Sustainable and Resilient Manufacturing (DFS RM)

Research Program 2



Industry 4.0 enabled intelligent solutions, technology development and application

Research Program 4



Manufacturing transformation education, awareness, and application

Building on the momentum of projects of up to two years' duration which have been supported by the Australian Government through the Modern Manufacturing Initiative, the CRC will focus on multi-party collaborative projects of between two and up to five years in duration – allowing ambitious businesses to invest in multiple horizons. The research programs will focus on the National Manufacturing Priority Sectors aligned to partners in the CRC including space, defence, food and beverage, recycling and clean energy, resources and critical minerals, and medical products.

A further opportunity may exist to include within the CRC the capacity to fund a range of shorter, faster and more intensive collaborative projects, focusing on earlier MRLs, similar to those made possible through the IMCRC activate model, which has proven attractive to both SME manufacturers and their partner research organisations. These projects typically run over a period of between 3 and 12 months and translate at least two MRLs, and are designed to enable SMEs to quickly undertake R&D and potentially develop larger scale collaborative research projects. The capacity to include this additional 'activate' type program will be dependent on industry interest and the overall funding capacity of the CRC.

Progressing manufacturing readiness to the next level

Influencing role	MRL 1	Technology assessment and initial proving	Basic manufacturing implications identified
	MRL 2		Manufacturing concepts identified
	MRL 3		Manufacturing proof of concept developed
CRC Primary Research Translation Focus Levels	MRL 4	Manufacturing technology and business model development and pre-production	Capability to produce the technology in a laboratory environment
	MRL 5		Capability to produce prototype components in a production relevant environment
	MRL 6		Capability to produce a prototype system or subsystem in a production relevant environment
	MRL 7		Capability to produce systems, sub-systems or components in a production representative environment
Influencing role	MRL 8	Engineering and manufacturing development	Pilot line capability demonstrated Ready to begin low-rate production
	MRL 9	Production and deployment	Low-rate production demonstrated. Capability in place to begin full rate production
	MRL 10	Operations and support	Full rate production demonstrated and lean / six sigma production practices in place

Research Program 1

Manufacturing digitalisation, applied artificial intelligence and data driven business models

MRL/TRL 4-8 primary focus

Research Priorities

Development, application and scaling up of:

- Industrial artificial intelligence, machine learning, data and predictive analytics, computer vision, speech technologies, autonomous objects
- Digital twins, integrating virtual design, engineering, manufacturing, and services; real time integration of cyber, physical and human worlds; interoperability, automation through digitalisation
- Augmented / virtual / mixed reality (AR/VR/MR) applications and use cases
- Software (including as a service enabling production), simulation, hardware integration, programming capabilities, cyber security and resilience

Benefits and Commercial Outcomes

- Real time, actionable data, recommendations, autonomy, enhanced service development
- Accelerate time to market, design and decision making, performance optimisation; predictive
- Digital twin augmentation into physical workspaces, training, safety, quality, reduced costs
- Convergence of operational and information technology, security, resilience, risk mitigation
- Flexible, agile, scalable facilities and connected supply chains

Research Program 2

Industry 4.0 enabled intelligent solutions, technology development and application

MRL/TRL 4-7 primary focus

Research Priorities

Development, application and scaling up of:

- Integration of multiple Industry 4.0 technologies to drive platform and cross-cutting, system wide multiplier outcomes and transformative business models through exemplar industry-led projects, including with SMEs
- Additive manufacturing (3D and 4D printing) designs, materials, processing, customised; new business models
- Next generation advanced materials, advanced composites, nanomaterials, biomaterials, intelligent materials
- Industrial autonomous, collaborative (cobot) and mobile robotics; robot process automation; vision
- Industrial IoT and 5G, sensors, wireless integration, control real time life tracking of products, services

Benefits and Commercial Outcomes

- Open design possibilities, speed, customisation, uniqueness, local production; lower waste, cost
- Improved material properties, integration, applications, nanostructures, intelligence
- Autonomous operations, safety, flexibility, agility, rapid scale up, capacity and productivity
- Industry 4.0 enabler, autonomous control, and interoperability; connected products, consumers
- Full Industry 4.0 capability, autonomy, interoperability, and sustainability outcomes

Research Program 3

Design for Sustainable and Resilient Manufacturing (DFSRM)

MRL/TRL 4-7 primary focus

Research Priorities

Development, application and scaling up of:

- Design, prototype, engineering, test and validation, full system, full lifecycle approach driving higher value and higher complexity products, processes and services
- Clean technology (zero waste, carbon neutral, clean energy) and sustainable design embedded through lifecycle
- Circular economy design and modelling to maximise use of local inputs and reuse through supply chains
- Sustainability as a competitive and comparative advantage
- Servitisation opportunities through design and new business model development
- Flexible, convertible, and optimised facilities and supply chains

Benefits and Commercial Outcomes

- Build critical design and engineering capabilities to compete on uniqueness, value (and not on cost)
- Sustainable business model incorporating delivering environmental and financial advantage
- Reduce reliance on non-local inputs; creates reuse and repurpose business models; resource efficient
- Sustainable jobs, growth, supply chains, as well as social responsibility; meaningful, valuable work
- Designer, producers, and consumers move closer, customised design and manufacturing
- Modular design, productivity and efficiency step change, affordable low volume batches, mass customization; resilient capacity and capability

Research Program 4

Manufacturing transformation education, awareness, and application

MRL/TRL 4-10 primary focus

Research Priorities

Development, application and scaling up of:

- Future of industrial work; success models for real time integration of people, machines, things
- Human factors in digital manufacturing to enable high value, high skilled jobs
- Manufacturing SME innovation, technology and digital literacy education program
- Workforce development through Masters, PhD (incl industrial), Internships and training and professional development
- Development of further hub models for technology, collaboration, and innovation initiatives for SMEs

Benefits and Commercial Outcomes

- Valuable and meaningful work and upskilling through digital manufacturing investments
- Business model innovation and change management focus at SME level
- Enable career pathways for researchers into industry
- Catalyse SME uptake of collaboration with research organisations to drive intelligent solutions



Local and international collaborations

Participation in the CRC also opens up opportunities for networking and collaboration with a range of world leading research and innovation institutes, including through existing relationships from within Australia:

- Australia's Industry 4.0 Test Lab Network
- Australia's Industry 4.0 Advanced Manufacturing Forum
- Industry Growth Centres
- Other Cooperative Research Centres and the CRC Association
- Technology Hubs such as the Advanced Manufacturing for Robotics (ARM) Hub
- APR.Intern National PhD Industry Internship Program
- Germany's Fraunhofer Institutes
- UK High Value Manufacturing Catapult Centres
- Manufacturing USA Institutes
- New Zealand's Callaghan Innovation

Potential Research Partners

The following leading Australian Research organisations have confirmed their potential interest in participating as a research partner in a new CRC for Intelligent Manufacturing. All have proven capability and success in collaborating with a wide range of manufacturing industry partners, including with SMEs.

State	Research organisation	Primary contact	Title	Email	Phone
National	CSIRO	Dr Marcus Zipper	Director, CSIRO Manufacturing	marcus.zipper@csiro.au	+61 3 95458560
Victoria	Deakin University	Ben Spincer	Executive Director, Deakin Research Innovations	b.spincer@deakin.edu.au	+ 61 400929563
South Australia	Flinders University	Professor John Spoehr	Director, Australian Industrial Transformation Institute	john.spoehr@flinders.edu.au	+61 8 82015297
Queensland	Griffith University	Dr Maretta Mann	Research Development Manager	maretta.mann@griffith.edu.au	+61 7 55529282
Queensland	Queensland University of Technology	Scott Mitchel	Director – Major Research Initiatives	s37.mitchell@qut.edu.au	+61 7 31389319
Victoria	Royal Melbourne Institute of Technology (RMIT)	Tim McLennan	Executive Director, Research Partnerships and Translation	tim.mclennan@rmit.edu.au	+61 3 99253570
Victoria	Swinburne University of Technology	Jenny Bungur	Research Business Development Manager for Manufacturing, Construction and Sustainability	jbungur@swin.edu.au	+61 3 92148762
South Australia	University of South Australia	Dr Frank Wagner	Dean: Industry and Enterprise	frank.wagner@unisa.edu.au	+61 8 83029390
New South Wales	University of Sydney	Dr Andrew Tindell	Director, Commercial Development & Industry Partnerships	andrew.tindell@sydney.edu.au	+61 2 86278181
New South Wales	University of Technology Sydney (UTS)	Arno Schaaf	Research Engagement Manager	Arno.schaaf@uts.edu.au	+61 2 95147452
		Hervé Harvard	Executive Director, Engineering & IT Solutions	herve.harvard@uts.edu.au	+61 2 95142429

A win-win collaborative investment model

The CRC for Intelligent Manufacturing will apply the proven principles of other recent CRCs and successful co-investment models. This will provide the foundation for driving research impact, collaborative investment and innovation, to ensure it builds sustainable, long-lasting, and trusted relationships with all partners whilst delivering industry led and commercially focussed research, development and innovation.

Industry-led

- Programs: research programs driving real world manufacturing and commercial outcomes.
- Projects: only Industry Partners can apply for project co-investment through the CRC. Research Partners work collaboratively with industry to develop and deliver projects.
- People: CRC Board and management with deep industry and research experience, leading by example, and with decision-making processes focussed on win-win outcomes for the collaborative project partners, return on investment, and on delivering transformative change to the manufacturing sector.
- Process: designed to deliver an industry led CRC through organisational structure, transparent policies and procedures focussed on these principles.

Research Partner support

- Maximised ROI: Research Partners are able to obtain a maximum of 4 times return on their cash investment into the CRC, with no limit on the number of industry-led research projects.
- Top up funding for research: returns in excess of the 4 times return will attract additional income for the CRC to co-fund further research.

- Academic talent: fostered through PhD stipends, Masters scholarships and industry internships.

Project co-investment

- Funding multiplier: dollar for dollar matched cash funding from the CRC matching industry cash investment in projects (noting while in-kind contributions are required and valued, these are not matched by CRC cash). Importantly, this typically enables a total project investment value in excess of five times the industry cash contribution value when CRC and other Partner contributions are included.
- Capped funding: project funding is capped per business to ensure efficient and effective use of CRC grant funding on projects. The new CRC proposes this is capped at \$5m per business with up to a 5 year project term.
- Project IP ownership: to maintain independence no project IP is owned by the CRC. Ownership of both background and Project IP is agreed prior to the commencement of any project to ensure no barriers will exist to successful commercialisation.
- Project maturity: CRC funds projects typically from MRL/TRL 4 through to 7 or 8 to take projects from proof of manufacturing concept through to pilot readiness and commercial investment.

A governance structure focused on outcomes

The CRC for Intelligent Manufacturing has a draft term sheet, which articulates the governance and management of the CRC. The term sheet is a part of the package of information made available to potential and interested partners.

The CRC for Intelligent Manufacturing will be established as a new independent, for impact (and not-for-profit) company limited by guarantee. It will be governed by a diverse and skills-based Board, with the majority of directors independent of the partners, and with a CEO appointed with relevant and extensive industry experience.

An Investment Committee, chaired by the CRC CEO, along with other members elected from external experts, will be responsible for reviewing research proposals against criteria pertaining to industry need, commercial potential and scientific basis.

The Committee will test:

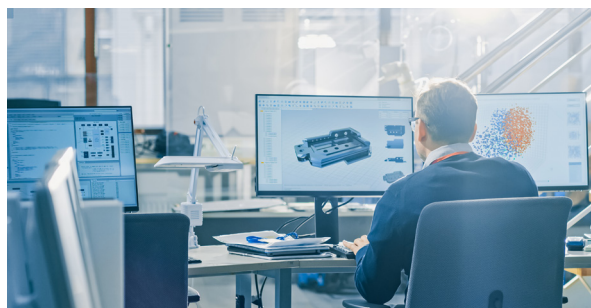
Why – projects must solve problems, deliver outcomes and benefits to the project partners and to the broader Australian manufacturing industry in line with National Manufacturing Priorities.

How – projects must apply intelligent manufacturing / Industry 4.0 technologies and unique business models, access global supply chains and involve effective collaboration (including with SMEs).

What – projects must provide pathways to new markets, address the competition, develop an IP and commercialisation strategy, and deliver a return on investment.

Following assessment, the Investment Committee will (based on agreed delegations of authority) approve or make recommendations to the Board for a proposal's approval and / or to project partners for its further development.

The CRC will have separate partner categories, one for Research Partners and others for non-research organisations such as Industry, Government and other collaborating partners.



Become a partner

An opportunity to collaborate with leading researchers on commercially focussed research projects to solve challenges directly relevant to industry, to create new and scalable products, processes and business models, and to leverage a substantial return on investment through the CRC program.

Partner benefits

1. Be a leading partner in next generation manufacturing research, development and innovation
2. Access 1:1 (dollar for dollar) matched cash funding from the CRC for industry-led collaborative projects of between 2 and 5 years in duration, commencing from mid-2022 onwards
3. Enhance the Industry cash investment to leverage a further 3x multiple on cash invested (typically total project investment is more than 5 x the industry cash contribution)
4. Create unique pathways to new products, processes, services and markets through development and adoption of technology and transformative business models
5. Access world class research teams, infrastructure and expertise, and build immediate and complementary R&D and innovation capability and capacity
6. Join a network of ambitious and progressive business and research leaders in manufacturing
7. Accelerate an IP and commercialisation strategy and deliver a substantial return on investment
8. Leverage the CRC business model and team working to support progress, drive outcomes and reduce risk, through proven project agreements, governance, milestones and reporting.
9. Create high value and meaningful jobs, and career pathways for research students
10. Help lift the scale, capability and resilience of SMEs and supply chains

Potential Industry Partners - is this a good strategic fit?

The CRC matches dollar-for-dollar Industry Partner cash for collaborative manufacturing R&D and innovation projects with CRC Research Partners. This is a potential fit for Industry Partners (e.g. manufacturing and related businesses) where their strategy includes:

- investing in an eligible transformative manufacturing R&D project with a CRC Research Partner of between 2 and 5 years in duration, that can commence from mid 2022 onwards
- spending at least \$250,000 cash per project to fund the cost of researcher salaries and operating costs at a CRC Research Partner (which, if eligible, the CRC can match dollar for dollar up to a maximum of \$5million per business)
- with the Research Partner(s) conducting at least 50% of the overall project research effort
- utilising and/or developing new manufacturing technologies and business models aligned with the CRC Research Programs to deliver commercial outcomes, including within Australia, ideally within 3 years of completion of the project
- collaborating with other Australian manufacturing SMEs through the project

It is important to note that the CRC

- only uses Industry Partner cash contributions for the approved project, and that Industry Partner payments are paid monthly to the CRC in line with an approved project budget and Research Partner expenditure profile (i.e. cash payments are not required from Industry Partners to the CRC until project commencement)
- only provides matching cash funding for eligible expenditure at the Research Partner(s) and not for the Industry Partner's own internal project or other expenses (these may be eligible to be valued as in-kind costs)
- requires in-kind contributions to be valued by the project parties, with the expectation that the total project in-kind (staff in-kind and other non-staff in-kind) is at least 3x the value of the Industry Partner project cash contribution
- does not provide funding for capital equipment, production tooling, buildings or facilities.

Next steps

If you are interested in being involved in the new CRC for Intelligent Manufacturing please make contact with:

Potential **Industry Partners**, please contact:

Simon Dawson

M: +61 409 828 523

E: simon.dawson@imcrc.org

Potential **Research, Government and Other Partners**, please contact:

Dr Jason Coonan

M: +61 418 359 815

E: jason.coonan@imcrc.org

Partner investment

The CRC for Intelligent Manufacturing requires interested Partners and investors to identify project opportunities and associated investments, which are summarised through Partner Declarations and proposed financial Contributions. The aggregated value of the Industry Partner Contributions will be eligible for matching by the Commonwealth should the CRC bid be successful, subject to Commonwealth approval of the bids and the funding requested.

Partner category	Investment	Value proposition
Industry Partner	Minimum \$250k cash up to a maximum of \$5m over the term of the CRC Additional in-kind contributions to the CRC, through projects	• Cash contributions for projects are matched by CRC cash to fund eligible project expenditure incurred by Research Partner(s) as defined in Project Agreement budgets and milestones • Cash contributions are paid to the CRC on a monthly basis in alignment with related project expenditure profile(s) • Industry Partner cash cannot be used by the CRC for any purpose other than for agreed project expenditure, unless otherwise specifically agreed in advance by the Partners • Access to additional CRC programs where available such as student internships, training, education and awareness programs • Where cash contributions are \$1m or greater, optional membership of CRC Entity and associated voting rights, including nomination of CRC Directors
Industry Network Partner (e.g. Industry Associations)	Minimum \$3m cash over the term of the CRC Additional in-kind contributions and support to the CRC, including through projects	• Cash contributions from a Industry Network Partner for projects are matched by CRC cash to fund eligible project expenditure incurred by Industry Network Partner member Research Partner(s) as defined in Project Agreement budgets and milestones • Cash contributions are paid by Industry Network Partner members to the CRC on a monthly basis in alignment with related project expenditures profile(s) • Industry Network Partner member cash cannot be used by the CRC for any purpose other than for agreed project expenditure, unless otherwise specifically agreed in advance by the partners • Access to additional CRC programs where available such as student internships, training, education and awareness programs • Industry NetworkPartner to help amplify CRC knowledge transfer through Industry Network Partner membership and wider industry to help drive design, R&D and technology uptake and transformation. • Industry Network Partner entity optional membership of CRC Entity and associated voting rights, including nomination of CRC Directors

Partner category	Investment	Value proposition
Research Partner	Minimum \$500k cash contribution over the term of the CRC Additional in-kind contributions to the CRC, including through projects	• Australian university or public research institute • Eligible to partner with Industry Partners on CRC co-funded research projects • Up to a 4x times multiple return on cash contributions • No cap on number of projects or aggregate income from research projects, noting additional 'top up' cash will be due to the CRC to maintain but not exceed the 4x return on total cash contributions • Membership cash contributions are paid on a quarterly or annual basis to the CRC • Additional 'top up' cash contributions (if applicable) are paid quarterly in alignment with related project expenditure profile(s)
	Minimum \$1m cash contribution over the term of the CRC	As above plus • Optional Membership of CRC Entity and associated voting rights, including nomination of CRC Directors • Optional Membership of a planned Research Strategy and Advisory Committee to provide science and technology direction to the CRC (including into each Research Program), the CRC Program and more widely to both in the industry and research communities
Government Partner (e.g. State or Territory)	Minimum \$2m cash contribution over the term of the CRC Additional in-kind contributions and support to the CRC	• Eligible to invest cash through the CRC to assist with matched funding for projects with Industry Partners or other agreed strategic initiatives where these are designed to support and help drive Government Partner policies and programs • Government Partner cash cannot be used by the CRC for any purpose other than for agreed project or other strategic initiative expenditure, unless otherwise specifically agreed in advance by the partners • Cash contributions are paid quarterly to the CRC in alignment with agreed eligible expenditure on projects or other strategic initiatives
Other Partner (e.g. collaboration partner, international partner)	No minimum cash contribution	• Access to CRC Partners, network and collaborative activities to provide mutual benefit

Timing and deliverables

All eligible Partner Declarations and details on Contributions are required to be submitted by 5pm AEST on Wednesday 11th August 2021.

This enables the Stage 1 bid application to be prepared, finalised and submitted online to the Commonwealth in advance of the submission deadline of Tuesday 24th August 2021.

Should a Stage 1 bid be successful, new CRC applicants will be invited to submit applications for Stage 2, likely later in 2021 or early in 2022, prior to a final decision being made on successful CRC applicants by mid 2022 in readiness for the new CRC to commence (including commencing partner projects) in the second half of 2022).

Relevant Partner information and templates

Forms to complete to become a Partner of the CRC:

- CRC for Intelligent Manufacturing - Partner Declaration Form
- CRC for Intelligent Manufacturing - Partner Contribution Form

Documents for reference / information only:

- CRC for Intelligent Manufacturing - Information Brochure (this document)
- CRC for Intelligent Manufacturing - Draft Term Sheet
- CRC for Intelligent Manufacturing – Project Contribution Guidelines
- CRC Program - Guidelines (Round 23)
- CRC Program - Fact Sheet (including information on the legal implications of the Partner Declaration)
- Sample – Partner Declaration
- Sample – Partner Contribution Form

These documents are available to download at www.crc4im.org.

Partner Declarations and Contribution forms are to be completed, signed and submitted by email to crcimforms@consultingis.com.au.

If you have any enquiries and need support in relation to the Partner forms, and/or in general about the CRC bid process, please contact:

Jennifer Lieu
Senior Consultant
Consulting & Implementation Services CIS

T: +61 3 9081 0410 (Admin)
M: +61 411 747 977
E: jenlieu@consultingis.com.au



For more information visit www.crc4im.org