



**REPORT CARD**

**TWO YEAR REPORT**

# ARM Hub 2022

Where AI and digital capabilities power Australia's manufacturing revival

At the forefront of industrial transformation, building strong local supply chains and preparing companies for success in global markets



## ASSOCIATE PROFESSOR CORI STEWART

CHIEF EXECUTIVE OFFICER

The ARM Hub has established its reputation as an independent and trusted innovation provider. The Hub's business model is an Australian first. We aggregate expertise across research institutions and complement this with in-house engineering, data science and design technical capability. This supports the accelerated commercial translation of research and development and at the same time provides an agile testing and problem-solving service to industry, particularly small to medium enterprises that often require agile, as-needed access to expert knowledge and skills to progress their digital transformation journeys.

Thank you to those who have journeyed with us so far. I look forward to what we will achieve together for years to come and to making an indelible contribution to our nation's great manufacturing revival.

WINNER

Women in AI Awards 2022  
Australia - New Zealand

ASIA PACIFIC WOMEN IN AI - AI IN MANUFACTURING AWARD 2022

"The ARM Hub exemplifies to the world that new, agile ways of providing AI and digital innovation services to businesses, and particularly small to medium enterprises, can have a sustained and transformative effect." – Cori Stewart

## AT A GLANCE

At the year two mark we celebrate the impact our services are having on our clients and partners. We supported over 700 businesses, reached industry across Queensland, Australia and the globe, and raised \$40 million in additional funds to back industry.

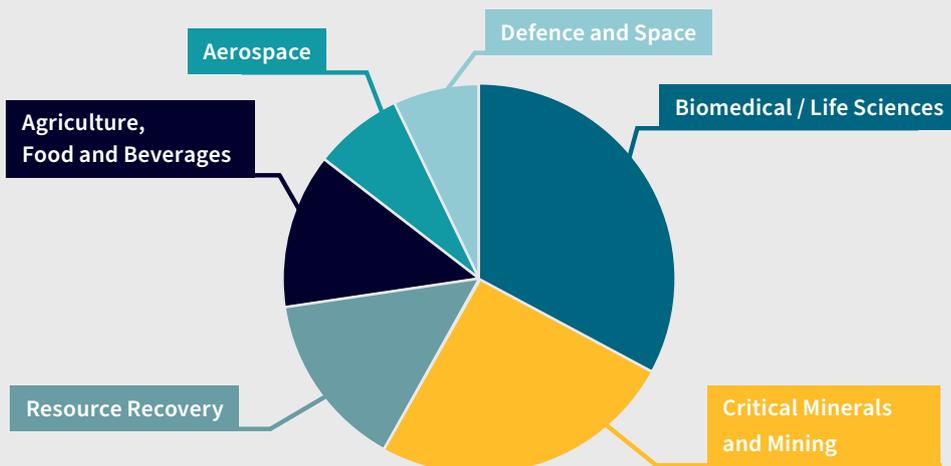


+ 5 global partnerships

+ 6 Queensland university member and project partners:

- QUT
- The University of Queensland
- Central Queensland University
- University of Southern Queensland
- James Cook University
- Griffith University

ARM Hub's services support priority industries to increase global competitiveness.





# \$40M+

## IN SECURED FUNDS

Backing industry to undertake projects that will grow and scale their businesses

# 707

Companies engaged with the Hub

# \$199M

## IN NETWORK FUNDS

Participating in manufacturing network programs including MMI collaboration

Innovation

Artificial Intelligence

# 4500+

In person and online event attendees

# 58

## BUSINESSES

Participating in or pursuing projects with ARM Hub

# \$93M PIPELINE

+ Participation in large global and national collaborations including Cooperative Research Centres

# 3



New products and services launched

# 136

Site visits and Industry 4.0 needs assessments conducted



Voltin, officially deployed their AutoBAT (see pg. 10)  
UAP, launched spin-out business FARM (see pg. 11)  
Verton scaled up R-Series and launched WindMaster (visit [armhub.com.au](http://armhub.com.au))

# TRANSFORMING INDUSTRY

## OUR MISSION:

Accelerate Australian industry's adoption of next generation technologies including AI, robotics and assistive technologies.

ARM Hub draws together skilled teams of scientists, technical specialists, designers, and engineers, to develop commercial, advanced manufacturing solutions.



## Drive Economic Growth

Through research and development, and business innovation, ARM Hub is driving economic growth through new ways of doing business, especially for small and medium enterprises.



## De-risk Digital Transformation

By lowering technical, operational and economic barriers to the adoption of Industry 4.0 technologies, ARM Hub de-risks and enables Australian manufacturers, across all industries, to advance their operations.



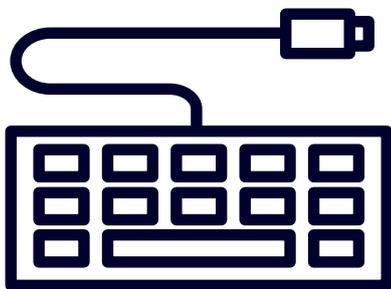
## Future Focused

Always at the forefront of emerging technology, ARM Hub is preparing manufacturers and businesses alike to increase capabilities and become digitally adept, securing the future of Australian manufacturing.



# ARM HUB

# SUCCESS MEASURES



ARM Hub's success is measured by the investment and growth of its clients and partners. Our indicators of success include the number and value of our industry engagements, commercial projects and research and development outcomes.

## 1. Industry Engagement

Developing and delivering industry facing workshops, ARM Hub demonstrates new capabilities and technologies for application in industry across priority sectors.

## 2. Commercial Solutions

Facilitating the adoption of new technology, ARM Hub provides access to expertise for short sprints and demonstrator projects to enable the adoption of new systems, processes and technology within businesses.

## 3. Public and Private Investment

To secure the ongoing benefits of innovation, ARM Hub also assists industry to leverage funding, find new clients and access targeted business support. ARM Hub's ability to help industry secure investments to assist in scaling operations and adopting technologies is key to delivering on the Hub's mission.



## OUR GUIDING PILLARS TO ACHIEVE GROWTH

### 1 Core Business

Maintaining business through industry engagement, commercial solutions, and membership.

### 2 Continuous Improvement

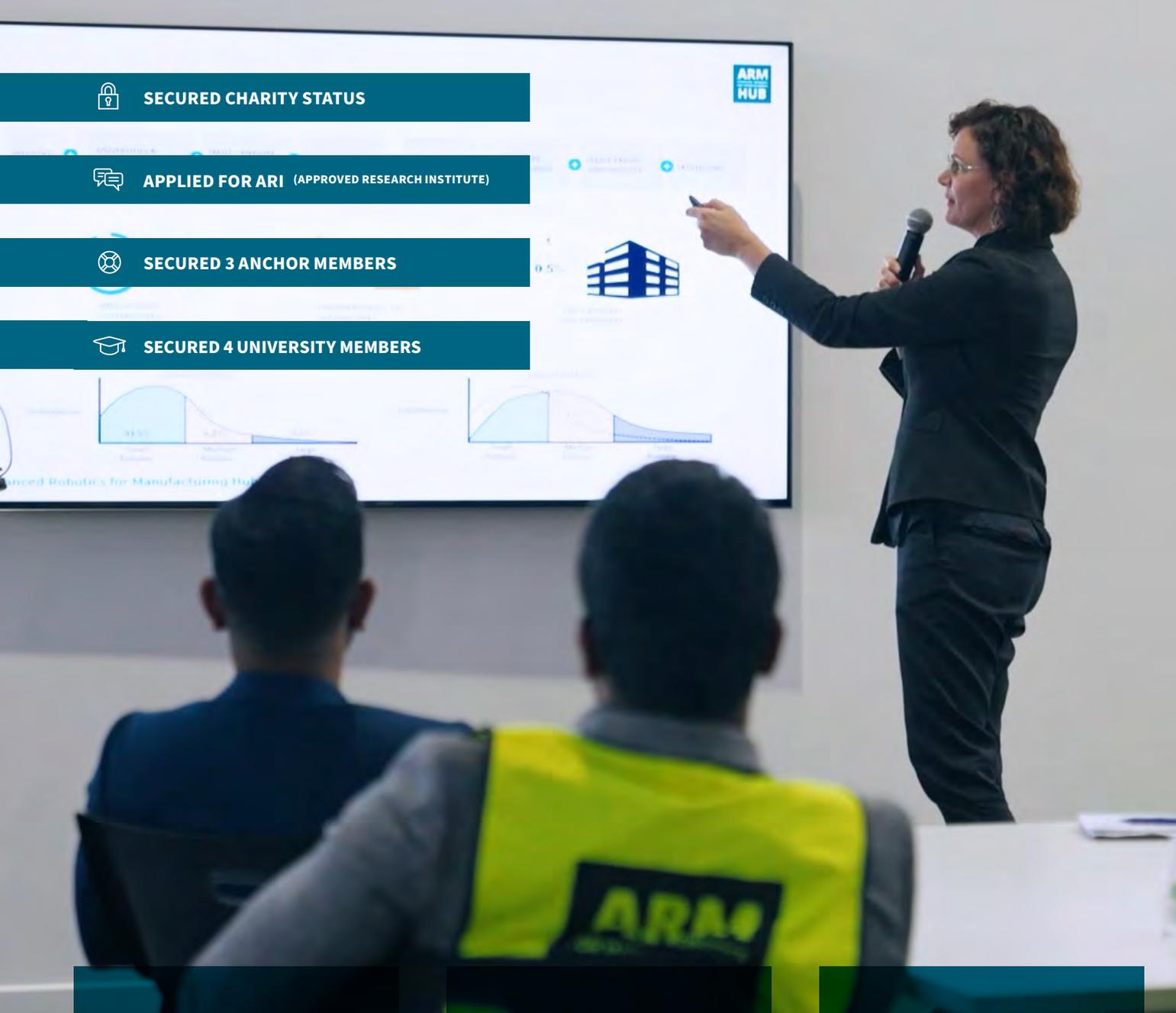
Achieving improvement through evolving business operations, governance and reporting as ARM Hub grows from start-up to SME.

### 3 Growth Pathways

Growing networks that help to deliver on our mission and create impact. We partner strategically, increasing channels to market and aligning with government priorities.

### 4 Blue Sky

Working with the future in mind, the ARM Hub will extend the range and reach of its innovation services and be recognised as leaders nationally and internationally. A diversified business model and future global recognition drive the business forward.



### TENANCY



Accessing space in the ARM Hub Learning Factory allows tenants to link to commercialisation opportunities for new business, projects and technologies.

### PROJECTS



The ARM Hub is developing commercial and research Industry 4.0 solutions, alongside Australian industry and research institutes.

### MEMBERSHIP



ARM Hub membership provides research institutes and businesses with the opportunity to digitally transform and collaborate with the most tightly woven network of companies in the region.



ARM HUB MEMBERS FORM AN INTEGRAL PART OF THE ADVANCED MANUFACTURING COMMUNITY, FROM RESEARCH INSTITUTES & INDUSTRY TO TECHNOLOGY COMPANIES

# MEMBERSHIPS

ARM Hub Memberships enable businesses and research institutes to collaborate and contribute to a joint mission of driving Australia's industrial transformation.

## Industry Members

Artificial intelligence (AI) and robotics are being applied across industry globally. Australia's increased application of next generation technologies will future proof the nation's industries, securing our sovereign capability and manufacturing revival.

Through industry partnerships, ARM Hub delivers continuous innovation support to Australian businesses, while driving real world outcomes through access to research and commercial application of research outcomes.

### INDUSTRY MEMBERS AND TENANTS INCLUDE:



## University Members and Projects

Over the course of 2021, ARM Hub has brought together a cohort of Queensland's leading universities to drive research commercialisation within Australian industry.

ARM Hub's expertise now cuts across a vast range of disciplines enabling growth in Australia's priority capabilities. Artificial Intelligence, cyber security, robotics, industrial design, quantum computing and material and food sciences, are some of the specialty areas where ARM Hub is bridging the gap between university research and business application.

These partnerships not only offer breadth in expert capabilities but form part of ARM Hub's expansive footprint across Queensland, the nation and globe.

Artificial Intelligence has become a critical part of modern life. With Australian tertiary institutions at the forefront of the evolution of these technologies, the ARM Hub is bridging the gap and forging Industry 4.0 growth and adoption.

Through ARM Hub's university memberships and project partnerships, small to medium enterprises access an extensive network of innovation experts from QUT; The University of Queensland; University of Southern Queensland; Central Queensland University; James Cook University; and Griffith University.

# Expertise

The Hub and its collaborators bring together deep and specialised skills in artificial intelligence, including:

- ④ **Robotics**
- ④ **Computer vision**
- ④ **Machine learning**
- ④ **Automated planning**
- ④ **Knowledge representation**

The Hub and its network of experts are combining cross-cutting skills for AI applications, including:

- ④ **Data analytics**
- ④ **Internet of Things**
- ④ **Augmented and virtual reality**
- ④ **Additive manufacturing**
- ④ **Advanced materials**



SINCE MARCH 2021, ARM HUB'S EXPERT NETWORK HAS GROWN TO:

**47 LEADERS IN AI AND ADVANCED TECHNOLOGIES**

## INTRODUCING ARM HUB'S NEW PROFESSOR



### PROFESSOR WILL BROWNE

Professor and Chair in Manufacturing Robotics | ARM Hub, QUT & CSIRO

Will is Professor and Chair in Manufacturing Robotics at Queensland University of Technology (QUT) with ARM Hub and CSIRO. Possessing expertise in artificial cognitive systems, with interest in how systems, such as robots, can interact with the real-world to solve problems of interest. Will's topics of interest include computer vision and perception, explainable artificial intelligence (XAI), transfer learning and collaborative robotics. Will is also co-lead on the Science for Technological Innovation team on

'Adaptive learning robots to complement the human workforce', Robotics Spearhead in New Zealand. Academic service includes editorial board membership of the ACM Transactions on Evolutionary Learning and Optimization and the Applied Soft Computing journal. Will's interdisciplinary background in mechanical engineering, energy studies, control, cybernetics, computer science, computational neuroscience as well as AI and robotics, is further expanding the disciplines of the ARM Hub expert team.

# HIGHLIGHTS



## ORRCON STEEL

### Member Highlight

Orrcon Steel, of the ASX listed BlueScope, has secured Platinum Membership with ARM Hub to pursue digital transformation across their business. Critical to Australian construction and manufacturing supply-chains, Orrcon has committed to innovation to future proof steel production, build capabilities and provide development opportunities for their people to ensure a sustained and enduring business.

Applying the expertise of the ARM Hub, including specialists in AI, data science, computer vision and machine learning, Orrcon's operations are catapulting into the future, increasing their competitiveness, improving efficiencies and creating local job opportunities.

With major infrastructure projects already underway and many more about to begin, Orrcon will be supplying thousands of tonnes of tubular products, their ability to do so will be bolstered by their focus on innovation and ability to embrace a digital future.

#### Platinum member benefits:

- Dedicated access to experts
- Roadmap of priority challenges and opportunities for Industry 4.0 adoption
- Delivery of de-risking projects
- Access to opportunities in ARM Hub network eg. cofunded post-doctorate

- Technologies being explored with ARM Hub & Orrcon:**
- Digital Twins
  - Artificial intelligence
  - Process monitoring
  - Advanced scheduling

DEVELOPING A  
WORLD-FIRST TECHNOLOGY

## Voltin | AI Enabled Façade Inspection

The ARM Hub, in collaboration with QUT, teamed up with Voltin to design for manufacture a world-first building facade inspection system. Using artificial intelligence (AI), the inspection system now captures dangers and defects invisible to the human eye.

With a vision to improve current building inspection standards, Voltin is an Australian SME developing new

technology for inspecting high-rise building façades. Their AutoBAT system automates the recording, evaluation, and reporting of building façade defects, significantly transforming traditional methods of inspection.

Following the success of the AutoBAT, Voltin is set to become a game-changer in facade inspections, property management, and more.



## Spinal Life Australia | Rehabilitation Tech for Remote Care

An initiative of Spinal Life Australia (SLA), HabITec at The Hopkins Centre, Griffith University and ARM Hub, the 'Innovation Workshop Series - Technology Solutions for All' seeks to create new technology solutions for people with disability through a facilitated co-design process.

Advance Queensland Fellow Dr Camila Shirota is leading the series, with contributors including people with lived

experience of spinal cord injuries, practitioners, and manufacturers. This ensures a broad range of needs are considered in the co-design process.

With specialists in additive manufacturing, robotics, defence and medical technology involved, this project has potential to create innovative solutions for commercial development.

ESSENTIAL GOODS & SUPPLY  
CHAIN PROJECT



## Valiant Space | On Board SpaceX Falcon 9 Mission

ARM Hub member tenant, Valiant Space, was granted \$200,000 by the Australian Space Agency in June 2021 to conduct a Fast Acting Space Transportation (FAST) Demonstrator Mission.

With grant partners SkyKraft, Valiant Space are set to test a newly developed propellant valve for their flagship thruster, VS-1. Developed within the ARM Hub, sending the

new propellant valve to space will ensuring risks are lowered for this component of the thruster.

Valiant Space's mission marks the start of a campaign to build spaceflight heritage on Australia's first in-space chemical thruster. More Valiant hardware is scheduled to launch into space late 2022 and early 2023. ARM Hub will continue to support the start-up changing the space scene.

INDUSTRY FUNDED R&D



THE PROJECT THAT  
STARTED IT ALL

## UAP (Urban Art Projects) | Robotic Linishing

Brisbane-based design studio, manufacturer and foundry, UAP, delivers public art and large-scale creative infrastructure projects across the globe. To remain globally competitive, over the last four years UAP has developed advanced manufacturing capabilities with the help of ARM Hub.

By implementing Industry 4.0, UAP transformed its operations and has established an ongoing R&D

partnership with ARM Hub expertise. The Hub has assisted UAP in taking advantage of the changed global condition and boosted its ability to re-shore its global manufacturing at their co-located base with ARM Hub.

Most recently, UAP founded a start-up FARM (Fabrication ARM), a digital twin design environment combining decades of manufacturing experience with leading-edge design technology.



## Salvation Army + Kmart | Clothing Disaggregation

In partnership with Salvation Army, Kmart and QUT, ARM Hub developed a series of half day workshops where representatives from each party along with industry experts in all stages of garmenting came together to ideate potential technology solutions to reduce textile waste.

The objective of the workshops and subsequent pilot project is to engage with industry, research organisations

and government bodies to develop a plan to assist the sorting and disaggregating of textile with robotic equipment. The end goal is to find a solution that minimises physical labour and cost, while maintaining a high level of accuracy.

Informing business model and technology demonstration is pivotal to providing a circular economy for textiles in Australia and the world.

TACKLING CIRCULARITY  
THROUGH TEXTILES WASTE



ADDING SPEED TO SUPPLY CHAIN

## Young Guns Container Crew | Process Design

Young Guns Container Crew (YGCC) engaged ARM Hub for a series of process design workshops to investigate the potential of Industry 4.0 to further mitigate safety risks and reduce downtime in their operations.

Key players in local & global supply-chains, YGCC are increasing workplace safety and optimising skilled workers to enhance the unloading of containers using new tech.

Following a successful series of design development workshops, ARM Hub experts in Industrial Design and Engineering are beginning the next phases of the project.

A simulation and detailed design process will enable YGCC to visualise and test the proposed design within ARM Hub's project space and track the impact and feasibility before on-site integrated testing.





# AUSTRALIAN COBOTICS CENTRE

## Industrial Transformation Training Centre

Forged through the activities with the ARM Hub, in 2021 the new Australian Cobotics Centre launched, also known as the ARC Centre for Collaborative Robotics in Advanced Manufacturing.

The Centre, that will run for at least 5 years, is an Australian Research Council (ARC) Industrial Transformation Training Centre and is a collaboration between QUT, University of Technology Sydney, Swinburne University of Technology and the Technical University of Dortmund.

The Centre has six industry partners including Cook Medical Australia, InfraBuild, Weld Australia, B&R Enclosures, IR4 and the ARM Hub. The ARM Hub is hosting the first Translation Project of the new

Centre, a project with partner InfraBuild to help improve the safety of steel product handling. This project is also the first use of the large QUT ABB robot hosted by the ARM Hub at the Learning Factory.

Through collaborative robotics, the Australian Cobotics Centre is supporting Australian manufacturers to shift toward higher-potential markets, compete globally and build a digitally capable workforce for the future.



Australian  
Cobotics  
Centre

## TRAINING CENTRE PARTNERS AND COLLABORATORS

### INDUSTRY PARTNERS

- B&R Enclosures
- Cook Medical – Australia
- InfraBuild
- IR4
- Weld Australia
- ARM Hub

### UNIVERSITY PARTNERS

- QUT
- Swinburne University of Technology
- University of Technology Sydney
- Technical University of Dortmund

## Metal Tech Industries (MTI) | Robotic Welding

ARM Hub Mechatronics Engineer, Amelia Luu, assisted MTI in enabling their collaborative robot-based welding system to perform small batch welding of metal brackets for the automotive industry.

MTI staff had largely implemented a working system but needed a little extra experience from the ARM Hub technical staff to finish off the implementation so that it performed as desired.

Industry-led adoption of advancing technologies has led to major capability growth. Digitising has led to both capability expansion and increased production. Their welding team is now able to optimise programming and jig design to achieve desired outcomes.



## Consolidated Linen Services | Agile AI in Laundry

Consolidated Linen Services (CLS) partnered with ARM Hub to address an area of the system that no business had previously offered a solution for. They created a system for automated towel folding with robotics and agile AI.

One of the last manual operations left within the laundry facility; high volume towel folding is a repetitive job in a hot, humid environment, where workers have to take regular hydration breaks.

Tackling this challenge provides a breakthrough in production, addresses a major safety concern and commercialises cutting edge research in robotic handling.

In the future, this project will look at the commercialisation opportunities for the business and the robotic outcomes.



## Hort Innovations | Banana De-handing

ARM Hub, with robotics experts from QUT, conducted a time and motion study to examine the feasibility of automating banana de-handing.

De-handing is a fundamental but labor-intensive process. This project provides the industry with an understanding of the benefits of automating the process and what would be required to adopt Industry 4.0 technologies.

To understand the challenges and opportunities for the integration of robotics and automation, the research team surveyed banana processing in operational processing facilities. A feasibility report communicated the challenges and immediate opportunities around automating banana de-handing, as well as a proposed plan for potential next steps. Next steps may include a proof of concept, technology demonstrations and design workshops.



# REGIONAL QUEENSLAND

# ENGAGEMENT



**55**  
SITE VISITS AND  
NEEDS ASSESSMENTS IN  
REGIONAL QUEENSLAND



 **21,768 KMS**

**TRAVELLED BY  
ARM HUB IN 2020/21**

# GROWING CAPABILITIES

## The Opportunity

ARM Hub launched the ARM Hub SPRINTS Artificial Intelligence Accelerator Program in November 2021. The inaugural intake started early 2022, aimed at supporting the Australian Government Artificial Intelligence Roadmap and Modern Manufacturing Strategy.

There is great potential for Australian industry to perform complex tasks using AI, machine learning and deep learning. These natural partners for robotics and computer vision are solving global problems like traceability and better energy use.

With the ability to operate at greater scale and speed, Australian industry can become more competitive and secure the nation's sovereign manufacturing capability and access to sophisticated global supply chains. Accelerating this digital transformation, the ARM Hub is connecting existing industry to the nation's best science and technology expertise and amplifying this with the SPRINTS accelerator program.



“SPRINTS DELIVERS AI OUTCOMES AND DIGITAL CAPABILITY OPPORTUNITIES FOR AUSTRALIAN SMES.”

Associate Professor Cori Stewart, CEO | ARM Hub

## PROGRAM LAUNCH

### Made with Ai

On Monday 22nd November, ARM Hub and Tech Council of Australia co-hosted Made with Ai.

A webinar to demystify artificial intelligence (AI) across Australian industry, uncovering how AI can secure Australia's manufacturing future.

Made with Ai examined current and emerging artificial intelligence technologies, and the ever-present challenges and opportunities for manufacturers to gain new capabilities and drive Australian industry into the future.

During the event Associate Professor Cori Stewart, CEO ARM Hub, announced SPRINTS: Artificial Intelligence Accelerator Program.

#### PANELLISTS:

- A/Prof. Cori Stewart  
CEO of ARM Hub
- Professor Bronwyn Fox  
Chief Scientist of CSIRO
- Professor Svetha Venkatesh  
Co-director of Applied Artificial Intelligence Institute, Deakin University
- Kate Pounder  
CEO of Tech Council of Australia

#### PANEL CHAIR:

- Emeritus Professor Roy Green,  
UTS Innovation Advisor and Chair ARM Hub

# SPRINTS

## ARTIFICIAL INTELLIGENCE ACCELERATION PROGRAM



### ABOUT

A new program providing support to Australia's manufacturing small to medium enterprises (SMEs) and micro-enterprises on their digital transformation projects.

BUILD CAPABILITIES



### WHAT

Access to data, design and engineering experts, project management activities and access to ARM Hub equipment and facilities for the duration of the project.

\$25,000 IN VALUE



### WHO

The makers and innovators of Australia's industry; SMEs and microenterprises; Those looking to scale up using Industry 4.0 as part of their strategy but lack the resources and expertise to take their idea to proof of concept and beyond.

SUPPORT INDUSTRY

#### SHORTLISTED APPLICANTS

#### Humensity

Developing IoT LiDAR sensor prototype through AI in advanced computer vision for object detection and tracking.

#### My Berries

Seeking cost-effective AI for robotic vision coupled with process control optimisation algorithms for frozen fruit processing.

#### Leakster Operations

Advancing research and development of an IoT sensor and accompanying AI for signal processing to recognise meaningful information from noisy data.

#### Voltin

Developing AutoBAT 3.0 which will deploy a single camera sensor system with AI for sensor fusion to accurately identify salient features within a robot's field of view.

# EXPERTS



**Professor Jonathan Roberts**  
ARM Hub Technical Director, Professor in Robotics, Faculty of Engineering, Centre Director - Australian Robotics Centre | QUT



**Professor Will Browne**  
Professor and Chair in Manufacturing Robotics, Faculty of Engineering | QUT & ARM Hub



**Distinguished Professor Kerrie Mengersen FAA FASSA**  
Australian Laureate Fellow, Faculty of Science | QUT



**Distinguished Professor Peter Corke**  
Professor in Robotic Vision, Faculty of Engineering | QUT



**Professor Marek Kowalkiewicz**  
Faculty of Business & Law | QUT



**Professor Richi Nayak**  
Faculty of Science | QUT



**Professor David Lovell**  
Faculty of Science | QUT



**Professor Matthew Dunbabin**  
Faculty of Engineering | QUT



**Professor Greg Hearn**  
Chair, ARM Hub Strategic Research Committee | QUT



**A/Professor Glenda Amayo Caldwell**  
Academic Lead Research, Faculty of Engineering | QUT



**A/Professor Jared Donovan**  
Academic Lead Research, Faculty of Creative Industries, Education & Social Justice | QUT



**A/Professor Markus Rittenbruch**  
Associate Professor in Interaction Design, Faculty of Creative Industries, Education & Social Justice | QUT



**Dr Muge Belek Fialho Teixeira**  
Senior Lecturer, Faculty of Engineering | QUT



**A/Professor Ajay Pandey**  
Sensors and Intelligent Systems | QUT



**A/Professor Rafael Gomez**  
Design Lead | QUT



**Dr Chris Lehnert**  
Faculty of Engineering | QUT



**Dr. Rui Torres de Oliveira**  
Business Growth, Strategy and Innovation | QUT



**Professor Felipe Gonzalez**  
Faculty of Engineering | QUT



**Dr Tim Williams**  
Industrial Design Lead | QUT



**A/Professor Alice Payne**  
Circular Economy and Textiles, School of Design, | QUT



**Professor Vicki Chen**  
Executive Dean, Faculty of Engineering, Architecture & Information Technology and ARM Hub Research Advisory Committee Member | UQ



**Professor Ryan Ko**  
Chair/Director, Cyber security | UQ



**Professor Matthew Dargusch**  
Mechanical and Mining Engineering | UQ



**Professor Andrew White**  
Faculty of Science | UQ



**Dr Michael Heitzmann**  
Senior Lecturer, Faculty of Engineering, Architecture and Information Technology | UQ



**Professor Ian Atkinson**  
Professor & Director eResearch Centre | JCU



**Mr Dan Christie**  
Head of Engineering | JCU



**Professor Nico Adams**  
Optus Chair of Digital Innovation (IoT) | JCU



**Ms Stephanie Baker**  
Lecturer, Electronic Systems and Internet of Things Engineering | JCU



**Professor Peter Schubel**  
Executive Director, Institute for Advanced Engineering and Space Sciences and ARM Hub Research Advisory Committee Member | USQ



**Professor Craig Baillie**  
Director, Centre for Agricultural Engineering, & Deputy Director (IAESS) | USQ



**Professor Hon. John McVeigh**  
Executive Director, Institute for Resilient Regions | USQ



**A/Professor Xuesen Zeng**  
Deputy Director and Theme Leader, Advanced Composites Manufacturing, Centre for Future Materials | USQ



**Dr Cheryl McCarthy**  
Senior Research Fellow (Centre for Agricultural Engineering) | USQ



**Dr Alison McCarthy**  
Senior Research Fellow (Irrigation and Cropping Systems) | USQ



**A/Professor Rajib Rana**  
School of Mathematics,  
Physics and Computing,  
Program Leader, IoT-Health  
Research Program | USQ

**Professor Pierre Viljoen**  
Associate Vice-President  
(Nth Qld/Chair AFWS)  
| CQU

**Dr Lasi Piyathilaka**  
Lecturer, School of  
Engineering and Technology  
| CQU

**A/Professor Preethi  
Preethichandra**  
School of Engineering and  
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**Dr Camila Shiota**  
Advance Qld Research  
Fellow | Griffith University

**Dr Grace Bittner**  
Research Fellow | Hopkins  
Medical Centre, Griffith  
University

**Dr Elliot Duff**  
Independent Robotics  
Research Consultant  
| ARM Hub



**Professor Michael Milford**  
Co-Director of the  
QUT Centre for Robotics  
Professor in Robotics,  
Faculty of Engineering  
| QUT

**Dr Mostafa Rahimi Azghadi**  
Senior Lecturer,  
Electrical and Electronic  
Engineering | JCU

**Mr Luke Deacon**  
Associate Director,  
Business Development and  
Commercialisation | JCU

**Professor Michael Brüning**  
Head of School, Information  
Technology | UQ

**A/Professor Marcus  
Gallagher**  
Faculty of Engineering | UQ

**Professor John Bell**  
Deputy Vice-Chancellor  
(Research and Innovation)  
| USQ

**Professor Alan  
Wee-Chung Liew**  
Deputy Head of School  
(Research) School  
of Information and  
Communication Technology  
| Griffith University



**Professor David Lloyd**  
Director, Centre  
of Biomedical and  
Rehabilitation Engineering,  
| Griffith University

**Dr Hui Tan**  
Senior Lecturer,  
Head of Computer Science  
| Griffith University

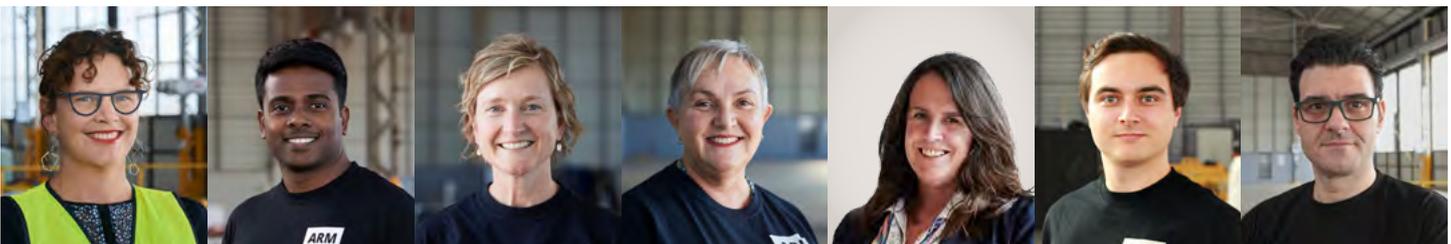
**Dr David Howard**  
Research Scientist,  
ARM Hub Robotics Lead  
| CSIRO

**Dr Navinda Kottege**  
Group Leader, Robotics  
and Autonomous Systems  
| Data61

**Professor Jon Whittle**  
Director | CSIRO Data61

**Dr Simon Dunstall**  
Principal Research Scientist  
| Data61, CSIRO

## CORE TEAM



**A/Professor Cori Stewart**  
Chief Executive Officer  
| ARM Hub

**Samuel Jesuadian**  
Chief Operating Officer  
| ARM Hub

**Melissa Nugent**  
Business Development  
Manager | ARM Hub

**Catherine Leather**  
Executive Assistant  
| ARM Hub

**Ann-Maree Willett**  
Principal Adviser  
| ARM Hub

**David Hedger**  
Head of Project Services  
| ARM Hub

**Anthony Franzé**  
Project Coordinator  
and Industrial Designer  
| ARM Hub



**Troy Cordie**  
Mechatronics Engineer  
| ARM Hub

**Harry Marles**  
Business Support Officer  
| ARM Hub

**Tim Kelly**  
Business Development,  
Project Delivery, Engineering  
| ARM Hub

**Margaret Puls**  
Communications Manager  
| ARM Hub

**Megan Pope**  
Communications Coordinator  
| ARM Hub

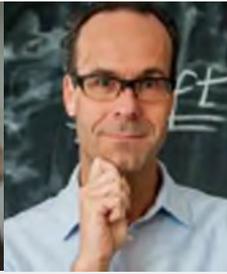
## EXPERT ADVISORS



**Emeritus Professor  
Rodney Brooks**  
Professor of Robotics  
| MIT and Co-Founder  
of Robust.AI.



**Professor Daniela Rus**  
Director | CSAIL, Erna Viterbi,  
Professor of Electrical  
Engineering and Computer  
Science | MIT



**Professor Dr Frank Piller**  
Head of Chair of the  
Institute for Technology and  
Innovation Management  
| RWTH Aachen University



**Honorary Professor  
Jeremy Howard**  
Founding Researcher  
| fast ai



**Lee Hickin,**  
Chief Technology Officer  
| Microsoft



**Dr Kate Devitt**  
Chief Scientist  
| Trusted Autonomous  
Systems CRC

## LOCAL INDUSTRY ADVISORS



**Dr Evan Shellshear**  
Head of Analytics | Biarri



**Rakalene Condon**  
Head of Product  
| Everledger



**Roozbeh Derakhshan**  
Lead Data Services  
| Technology One



**Shay Chalmers**  
Director | Strategic  
Engineering Australia



**Chris Brugeaud**  
CEO | SSS Manufacturing  
& IR4 Pty Ltd



**Professor Bronwyn  
Harch (FTSE, FQA)**  
Executive Research Leader

## BOARD



**Emeritus Prof. Roy Green**  
Chair



**Prof. Mark Harvey**  
Director



**Jenni Lightowers**  
Company Secretary



**Matthew Tobin**  
Director



**Jackie Taranto**  
Director

## GET IN TOUCH

### ARM Hub Learning Factory

53 Holland Street, Northgate  
Queensland 4013

[armhub.com.au](http://armhub.com.au)

 ARM Hub (Advanced Robotics for Manufacturing)

 @ARMHubAus

 @ARMHubAus

## MAJOR PARTNERS & MEMBERS



UAP



**ARM**  
ADVANCED ROBOTICS  
FOR MANUFACTURING  
**HUB**