Australian Government

iisa
Industry Innovation
and Science Australia

ANNUAL REPORT 2020–21

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Letter of Transmittal

Australian Government

iisa Industry Innovation and Science Australia

Chair

The Hon Angus Taylor MP
Minister for Industry, Energy and Emissions Reduction
Parliament House
CANBERRA ACT 2600

Dear Minister

I am pleased to present the Industry Innovation and Science Australia Annual Report on its activities for the financial year ended 30 June 2021, prepared in accordance with section 46 of the *Industry Research and Development Act 1986*.

Innovation and Science Australia (ISA) was established on 20 October 2016.
On 1 October 2020 the Government announced that ISA would be renamed to Industry Innovation and Science Australia (IISA) and would provide industry advice to Government throughout the implementation of the Modern Manufacturing Strategy.
The 2020-21 Annual Report covers activities undertaken by ISA, IISA and their committees throughout the financial year.

Sincerely,

Andrew Stevens
29 September 2021

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Industry Innovation and Science Australia's strategic objectives

Objective 1: Inform Australian Government policy on Australian industry innovation, science and research.

Objective 2: Advocate and champion for Australia's industry innovation, science and research systems.

Objective 3: Oversee innovation programs to ensure effectiveness and efficiency of delivery.

Welcome from the Chair

It is with great pleasure that I present to you the 2020–21 Industry Innovation and Science Australia (IISA) Annual Report. For the second year running, IISA acknowledges the impact of the COVID-19 pandemic on Australian industries, businesses and citizens. It has been another tough year for all Australians.

Despite the challenges that the COVID-19 pandemic has presented, we have seen some positive trends emerge. IISA has been in a unique position to witness the way Australian businesses have changed and adapted to this ongoing volatility. We have been analysing what has helped businesses remain resilient, such as the adoption of technology, adaptation of business models, diversification of service and product offerings, and a renewed focus on human capital. These investments have enabled many of our businesses to survive and can be a catalyst for increased value and growth.

Many Australian businesses were quick to respond to the changing environment. According to the Australian Bureau of Statistics (ABS), within a month of COVID-19 being declared a pandemic, 38% of businesses had already altered their business models to change the method of delivery of products or services, including a shift to online services.

By June 2020, ABS data revealed that large percentages of Australian businesses reported that they had introduced new innovation into their operations. Seventy-eight per cent of accommodation and food services businesses, 70% of health care and social assistance businesses, 64% of education and training businesses, and 58% of arts and recreation services reported changing the types and range of products and services offered, or the way they were delivered to customers.

By September 2020, the ABS reported that the most common modifications that Australian businesses had in place to combat the effects of the pandemic were changes to the way products or services were provided to customers (36%). The ABS also reported that 19% of businesses had changed the types and ranges of products and services they offered. Those business leaders who saw an opportunity (and also those driven by necessity) acted for resilience. There will, however, remain challenges for all, no matter how they have fared during this financial year.

Addressing these challenges has formed a strong focus for IISA. On 1 October 2020, the Prime Minister announced that Innovation and Science Australia would be renamed to Industry Innovation and Science Australia, with a refreshed focus on providing strong industry advice to Government. This change builds on work across government to improve economic conditions for Australian businesses. As a result of this renewed focus, five new members were appointed to our Board. New members include Mr Patrick Houlihan, Ms Lauren Stafford, Mr Scott Farrell, Dr Alex Grant and Ms Sarah Nolet. In early 2021 we also saw Ms Glenys Beauchamp PSM join the Board, and Australia's Chief Scientist Dr Catherine Foley AO PSM FAA FTSE began her role as our Deputy Chair. I have valued the perspectives which these new members have brought to the Board, and want to thank all existing and new members for their dedication, expert advice and professionalism in the work we have carried out together to date.

IISA is supported by the Office of Industry Innovation and Science Australia (OIISA) which is led by Dr Kate Cameron in her role as acting CEO. Kate has led OIISA diligently during the recent refresh and has assisted the Board to provide impactful advice in policy and advocacy matters.

A focus of IISA this year has been providing advice to Government on the implementation of the Modern Manufacturing Strategy (MMS). Through the MMS, the Government is focusing investment to foster manufacturing strength and capability in areas of comparative advantage and strategic interest.

In 2020–21, roadmaps were developed for the six MMS National Manufacturing Priority (NMP) areas, to guide future investment and action from both government and industry over 10 years. The roadmaps cover six NMPs: Medical Products, Recycling and Clean Energy, Defence, Space, Food and Beverage and Resources Technology and Critical Minerals Processing. IISA provided expert advice to Government on the development of these roadmaps and continues to assist with their implementation.

Furthering our independent work on manufacturing, we have commenced a project to examine key cross-cutting issues affecting Australian manufacturing businesses. In this project we are analysing the challenges manufacturers face to build scale, adopt technologies, and increase their competitiveness by competing on value rather than cost alone.

In a separate piece of work, we are also analysing how Australian businesses create and sustain value, along with the lessons that can be learned from their investment characteristics. We are doing this with a view to provide advice on possible policy approaches to support business growth. This will include in-depth analysis of the role of different types of intangible assets in value creation.

We have also commenced work with the Treasury to review the Venture Capital (VC) Tax Concession Programs to ensure these concessions are fit-for-purpose and support genuine early stage Australian startups. The review will evaluate the impact of the Early Stage Venture Capital Limited Partnerships (ESVCLP) program, the Venture Capital Limited Partnerships (VCLP) program, and the Australian Fund of Funds (AFOF) program. The review will progress into next financial year.

In early 2021, IISA released our report, *Driving effective Government investment in innovation, science and research*. Within this report we recommended an increased focus on research commercialisation. In November 2020, myself and Dr Foley, were appointed to an expert panel for the University Research Commercialisation Scheme, which is being developed by the Department of Education, Skills and Employment. Announced as part of the 2020–21 Budget, the intent of the scheme is better translation and commercialisation of university research outputs. Dr Foley and I have continued to be involved in this work during 2021.

I would like to take this opportunity to thank our Board members whose tenures concluded during the year. Dr Alan Finkel AO, Dr Bronte Adams AM, Professor Bronwyn Harch and Dr Christopher Roberts AO all concluded their terms with the Board during the financial year. It has been a pleasure to work with you all. Your commitment and contributions have been invaluable. I would also like to extend my gratitude to OIISA staff for their continuing efforts and ongoing support of the IISA Board. The quality of their work does not go unnoticed and ensures the Board are able to confidently proceed with our work in an effective and efficient manner.

I would like to also recognise the ongoing efforts of the IISA Committees throughout the year. IISA oversees a number of innovation programs via the Research and Development Incentives Committee, the Entrepreneurs' Programme Committee, the Cooperative Research Centres Advisory Committee, the Innovation Investment Committee, and the Biomedical Translation Fund Committee. These committees play a vital governance role for key government programs in support of the Australian innovation system.

I invite you to read this report to get a full understanding of the crucial work IISA and OIISA have conducted through the financial year to assist businesses and industry in difficult times. I am very proud of our achievements throughout the year and the progress we have made on a number of projects. We have provided expert advice to Government, advocated and championed for the Modern Manufacturing Initiative, the innovation, science and research system, and informed and guided policy which will aid in Australia's ongoing response to, and recovery from, the COVID-19 pandemic.

Mr Andrew Stevens
Chair

Welcome from the Office of Industry Innovation and Science Australia

The 2020–21 financial year has been another incredibly challenging year for Australia and Australians. As the year drew to a close, the country was facing a rise in the virulent Delta COVID-19 variant and we were once again adapting to an ever-changing environment, both personally and professionally.

While COVID-19 continues to present challenges for us all, the Office of Industry Innovation and Science Australia (OIISA) team has been assisting the IISA Board to analyse the way our businesses have reacted, so as to provide expert strategic advice to Government. While many businesses have made innovative gains in work practices through the disruption of the pandemic, many have also found the conditions challenging. As our country begins to return to business as usual, it will be important to build on the experiences of our businesses to help them to grow both in the aftermath of the current crisis and beyond.

I have particularly welcomed the support of the OIISA team during the pandemic. We have moved, as the rest of the country has, to the adoption of virtual working environments for staff and the IISA Board – assisting them to meet and collaborate virtually despite being located across many states and territories. We have been able to gather and achieve efficiencies, whilst also progressing our care and protection of our staff and their families in what has been both a physically and mentally challenging time. These new approaches will pave the way for greater efficiencies that I am sure will carry on for OIISA and IISA, well past the end of the pandemic.

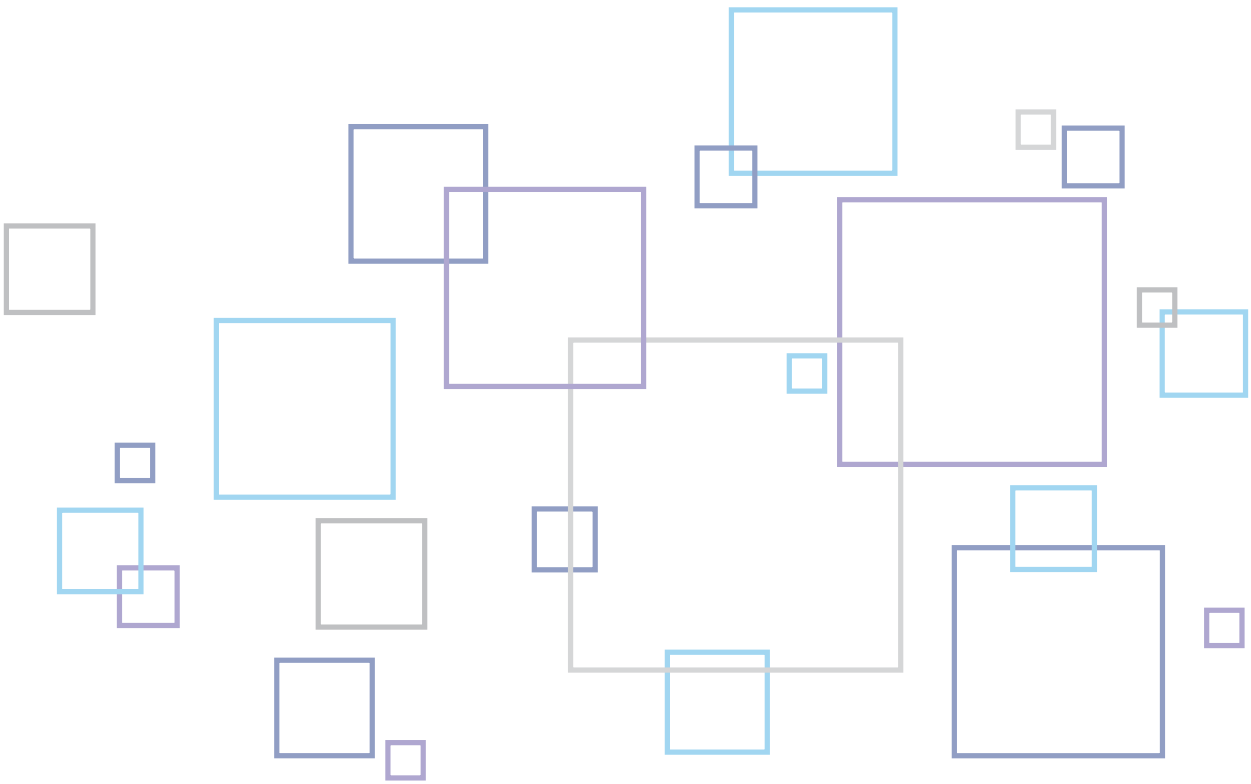
Continuing the trend from the previous two years, we have seen a number of new Board members and new responsibilities for the Board in 2020–21. This year we have undergone a change in name, a refocus of our responsibilities to assist with the implementation of the Modern Manufacturing Strategy, have farewelled some Board members, and have welcomed a number of new Board members. It has been a valuable experience leading the office through these changes and witnessing the agility of the team and their skills as they support the Board to provide expert advice to Government.

This was evidenced by the work OIISA conducted to support the IISA Board deliver the *Driving effective Government investment in innovation, science and research* report in early 2021. The report analyses the effectiveness of the Commonwealth Government's investment in, and system performance of, innovation, science and research (ISR). It provides recommended actions which can guide the most effective use of government investments, including the development of whole-of-government ISR priorities and an investment plan which aligns with these priorities, coordinated at the whole-of-government level.

I would like to thank the Board for their work in delivering this report and the other important pieces of work they have contributed to throughout the financial year. Your unwavering commitment to positive outcomes for industry and the ISR system has been invaluable, especially as needs have shifted. In particular, I would like to acknowledge the experience and support of the IISA Chair, Mr Andrew Stevens. His guidance, experience, and knowledge of the challenges and opportunities that businesses face every day has ensured that OIISA has been able to effectively support the Board in its advice to Government.

The OIISA team would also like to thank both our current and previous Minister for Industry, Science and Technology, the Hon Christian Porter MP and the Hon Karen Andrews MP, and their respective staff for their keen interest in our work. We also thank all our colleagues in the Department of Industry, Science, Energy and Resources, and the Australian Public Service more broadly, for their collaborative and constructive engagement.

Dr Kate Cameron, acting CEO



Section One
REVIEW OF 2020–21

Overview of Industry Innovation and Science Australia

Informing policy through strategic advice

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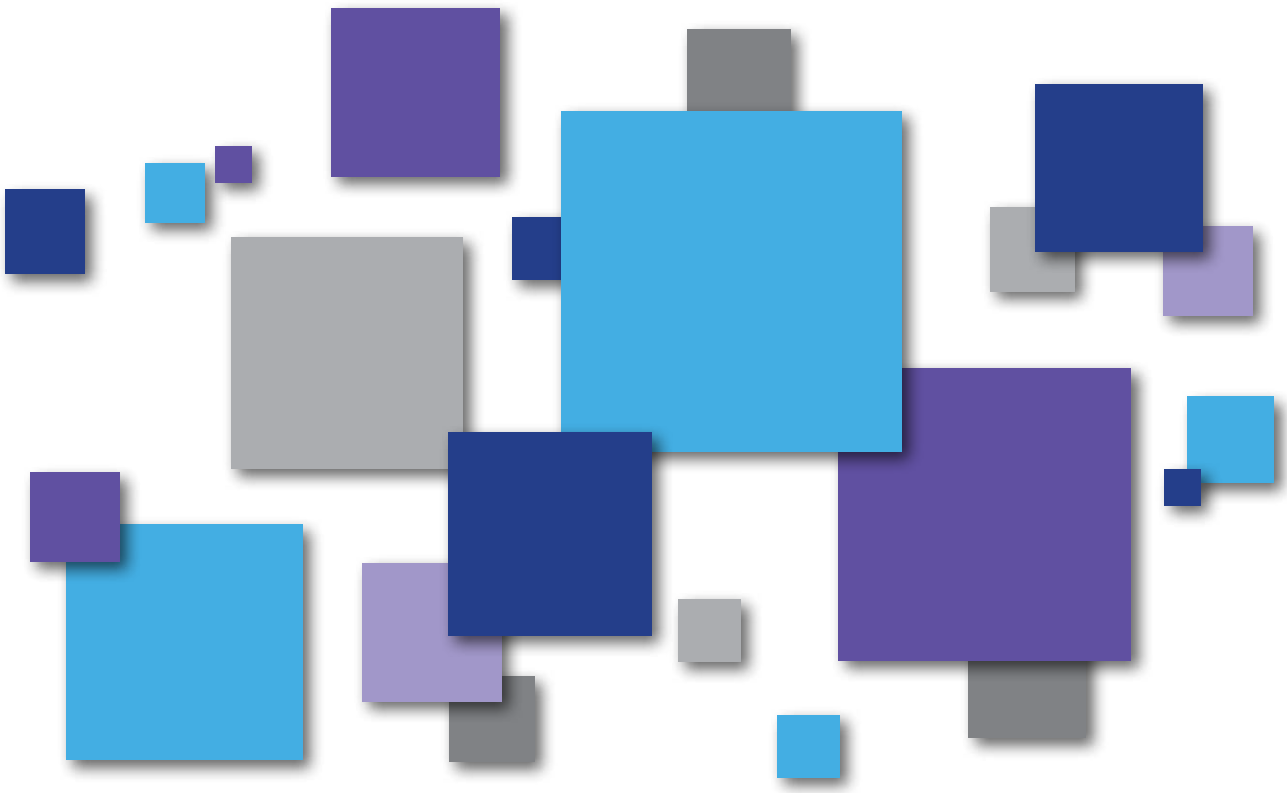


Overview of Industry Innovation and Science Australia

IISA is an independent board that provides strategic advice to Government on industry, innovation, science and research matters. IISA also monitors and oversees a number of innovation programs through five committees.

IISA was originally announced as part of the Australian Government's National Innovation and Science Agenda in December 2015, and formally established on 20 October 2016 through amendments to the *Industry Research and Development Act 1986* (IR&D Act).

On its formation, the Board inherited the roles of the body formerly known as Innovation Australia which had been established under the IR&D Act to assist with the administration and oversight of the Government's industry, innovation and venture capital programs.

IISA's role and responsibilities are defined by the IR&D Act, the Government's Statement of Expectations (SOE) and any directions issued by the Minister for Industry, Science and Technology. The Government's most recent SOE, and IISA's Statement of Intent (SOI) in response are published on https://www.industry.gov.au/policies-and-initiatives/industry-innovation-and-science-australia.

In the 2020–21 financial year, IISA released our report, *Driving effective Government investment in innovation, science and research*. The report reviews the effectiveness of the Government's innovation science and research (ISR) investments across all portfolios. It looks at the overall mix of investments to identify duplications, gaps, and alignment of policies across the system.

It includes three recommended actions to guide the most effective use of government investments. If adopted, these recommended actions can ensure high-impact ISR outcomes both now and in the future.

The recommended actions include the development of:

- whole-of-government ISR priorities that are used to drive investment decisions
- a 10-year investment plan that is aligned with ISR priorities, coordinated at the whole-of-government level, and which has an effective evaluation processes
- an investment plan that is strategically balanced across the government's portfolio of investments to ensure returns over the short, medium and long term.

IISA continues to play a key advisory role in the development and implementation of the Modern Manufacturing Strategy and has also continued to work across many areas of government to inform the development and delivery of stronger policies to support science, research and innovation.

Informing policy through strategic advice

IISA's first strategic objective is to 'Inform policy through strategic advice'. IISA's achievements against this objective in 2020–21 are summarised below.

Whole of government engagement

IISA is uniquely positioned to act as an integrator and connector in the Australian innovation ecosystem. As a diverse, experienced and highly influential board, IISA can approach innovation in Australia through a strategic, whole-of-system lens. This has facilitated meaningful engagement with a broad stakeholder group on a number of cross-cutting areas and initiatives.

Core projects

IISA's strategic advisory role during 2020–21 focused on three key programs of work. These pieces of work meet IISA's unique mandate to take a strategic, whole-of-innovation system view. You can read about these projects in the coming pages.

Venture Capital Tax Concession Programs Review

Announced as part of the Government's Digital Economy Strategy in the 2021–22 Budget,[1,2] IISA, in conjunction with the Department of the Treasury, will complete a review of in-scope Venture Capital Tax Concession programs. This Review will also meet the legislative requirement for an impact assessment to be conducted of the venture capital tax concession programs,[3] and is also part of IISA's SOE.

The Review Terms of Reference are planned for release in early July 2021 the purpose of the Review is as follows:

- to consider how the concessions operate in practice and whether they are achieving their intended objectives
- to satisfy the legislative requirement outlined in Section 118–455 of the *Income Tax Assessment Act 1997*
- to consider the recommendations of other relevant reviews, to which the Government has not yet responded, that examine venture capital tax concessions.

The Review scope includes the Venture Capital Limited Partnerships (VCLP), Early Stage Venture Capital Limited Partnerships (ESVCLP), and Australian Venture Capital Fund of Funds (AFOF) tax concession programs. Investments made directly by foreign residents registered under Part 3 of the *Venture Capital Act 2002* are also in scope. It is a legislated requirement that a public consultation is undertaken as part of the Review, and this is planned to commence in the second half of 2021.

Cross-cutting Issues from the National Manufacturing Priority Road Maps

Another project IISA is undertaking is an analysis of three key cross-cutting challenges and opportunities for Australian manufacturing businesses. Specifically, IISA is examining the ability of Australian manufacturing businesses to:

- grow and build scale
- successfully adopt and implement technologies that lead to better business outcomes
- increase their competitiveness by competing on value rather than solely on cost.

[1] Prime Minister of Australia, 'A modern digital economy to secure Australia's future', press release 6 May 2021.
[2] Commonwealth of Australia, 'Digital Economy Strategy: Tax incentives', 2021.
[3] Subsection 118–455 of the *Income Tax Assessment Act 1997*.

This work builds on the insights provided in the Government's Modern Manufacturing Strategy (MMS) industry-led National Manufacturing Priority (NMP) Road Maps, and explores how the cross-cutting issues affect Australian manufacturing businesses. How these inter-linked pathways to growth might be better exploited by businesses, and supported by government, will also be considered through analysis of cross-cutting enablers, including skills, regulation and digital and technological capability.

IISA will review existing domestic and international literature, engage and consult with businesses, and analyse available quantitative and qualitative data, to gain insights about these three cross-cutting issues. A report articulating IISA's evaluation of, and proposed actions for, these cross-cutting issues will be delivered to the Minister in October 2021.

Investment Characteristics of Successful Innovative Businesses

IISA is building on the Board's previous report, *Stimulating business investment in innovation*, to undertake further analysis of the investment characteristics of successful innovative business and advise on possible policy approaches to support business growth.

The work is employing a mix of quantitative and qualitative research to explore how Australian businesses of varying sizes and ages create and sustain value and remain resilient. It will be informed by engagement with a range of Australian businesses and stakeholders to identify the lessons that can be learned from successful businesses.

This work is focusing on various aspects of value creation, including the role of intangible (non-physical) assets and executive decision-making capability in business performance.

A final report will be delivered to the Minister in the 2021–22 financial year.

Advocacy

IISA's second strategic objective is to 'advocate and champion for Australia's innovation, science and research system'.

This objective encompasses a range of activities for IISA, from speeches and presentations at conferences and public events, to participation in roundtable forums and meetings with stakeholder groups from industry and government. IISA is represented by a number of spokespeople in public engagement activities and advocacy work, including the IISA Board Chair, IISA Board members, the Acting CEO of OIISA and OIISA staff members.

During 2020–21 IISA has worked directly with stakeholder groups to better understand the barriers to, and characteristics of, success within their industries, with particular attention paid to assisting rapid economic and industry recovery from the COVID-19 pandemic. We have provided expert advice to the Minister for Industry, Science and Technology on the implementation of the MMS.

IISA's broad engagement strategy ensures that we can proactively target messages to the industry and ISR communities, as well as the wider Australian public.

In 2020–21 we continued our use of social media to engage with the public, industry and ISR stakeholders. In our second year of using LinkedIn, we continue to reach out to the Australian business community and those with an interest in innovation. We reached just under 500 followers on our LinkedIn account by the end of the financial year, joining our more than 2,750 Twitter followers.

Some highlights from IISA's public engagement activities over the year included our involvement in:

- The Public Sector Network Innovate Australia Conference and Expo 16 June 2021 (Dr Kate Cameron, CEO)

Dr Kate Cameron speaking on a panel at The Public Sector Network's Innovate Australia Conference and Expo.

IISA Chair, Andrew Stevens speaking during a Western Sydney Business Chamber Webinar.

- The IP Group Australia Showcase 27 October 2020 (Mr Andrew Stevens, Chair)
- The MTP Connect Board Meeting 21 October 2020 (Mr Andrew Stevens, Chair)
- The Interview with The Australian 20 October 2020 (Mr Patrick Houlihan, Board Member)
- The Western Sydney Business Chamber Webinar – Using Research and Development and Innovation to Kickstart the Economy 14 September 2020 (Mr Andrew Stevens, Chair)
- The UniQuest Board Meeting 23 July 2020 (Mr Andrew Stevens, Chair)

A number of additional speaking engagements/ events were cancelled or postponed due to COVID-19, and have not been rescheduled to date.

Program oversight

IISA's third strategic objective is to 'oversee innovation programs to ensure effectiveness and efficiency of delivery'. As at 30 June 2021, the IISA Board, through regular engagement with IISA committee chairs, provided oversight to, and support for, the administration of the following programs[4]:

1. **Research and Development Tax Incentive Program**
2. **Cooperative Research Centres Program**
   - Cooperative Research Centres (CRCs)
   - Cooperative Research Centres Projects (CRC-Ps)
3. **Venture Capital Programs**
   - Early Stage Venture Capital Limited Partnerships (ESVCLPs)
   - Venture Capital Limited Partnerships (VCLPs)
4. **Biomedical Translation Fund** (delivered by AusIndustry on behalf of the Department of Health)
5. **Entrepreneurs' Programme[5]**
   - Accelerating Commercialisation (AC)
   - Incubator Support (IS)
6. **Business Research Innovation Initiative[6]**

The IISA Committees and the Department of Industry, Science, Energy and Resources (DISER) assisted the Board to oversee these programs in 2020–21. The programs were delivered by DISER. The Australian Taxation Office (ATO) also assists DISER with the administration of the Research and Development Tax Incentive and Venture Capital programs.

[4] Legacy programs no longer open to new applicants and of which Industry Innovation and Science Australia maintains oversight are listed at page 52.

[5] Note that there are two other components of the Entrepreneurs' Programme, the Business Management component and the Innovation Connections component, which are not included here as IISA does not have a formal oversight role of these components.

[6] Note that the Business Research Innovation Initiative does not have its own committee, but instead is overseen by the Entrepreneurs' Programme Committee.

Program Overview
Research and Development Incentives Committee

"The October 2020 Federal Budget saw enhancements to the RDTI program which were in most cases beneficial to applicant companies. During the year significant work was undertaken by DISER on a refreshed Guide to Interpretation and a new Registration Form. Both have been well-received".

"In response to COVID, extensions for submission deadlines were introduced impacting program metrics for the year. While the inability to engage with companies face-to-face reduced the understanding of compliance levels, overall the introduction of departmental initiatives which promote early engagement with applicants has been successful".

MS JULIE PHILLIPS
CHAIR, R&D TAX INCENTIVE COMMITTEE

Research and Development Tax Incentive Program

The Research and Development Tax Incentive (RDTI) program is the Australian Government's principal measure to encourage industry investment in R&D. It is a broad-based, market-driven program that is accessible to all industry sectors. The program provides benefits in the form of tax offsets to eligible entities undertaking eligible research and development (R&D) activities. To access the incentive, companies self-assess the eligibility of their R&D activities, register them with DISER, and then claim a tax offset in their company tax return with the ATO.

The objective of the incentive is to encourage industry to conduct R&D activities that might otherwise not be conducted. The incentive addresses a market failure whereby businesses under-invest in R&D due to uncertain outcomes and the inability to capture all the benefits of their R&D.

The 2020-21 financial year has seen some big changes for the RDTI. Enhanced reforms announced in the 2020–21 Budget apply from 1 July 2020. Under these reforms, annual R&D expenditure up to $150 million per annum (up from $100 million per annum in previous years) will receive:

- a tax offset of 18.5% above the 25% tax rate for eligible companies with an aggregated turnover of less than $20 million per annum, which can be taken as a cash refund
- a two-tiered non-refundable tax offset for eligible companies with an aggregated turnover of $20 million or more per annum, depending on a company's R&D intensity (R&D expenditure as a proportion of total expenditure):
  - a tax offset of 8.5% above a company's prevailing tax rate (25% or 30%) for expenditure up to 2% R&D intensity
  - a tax offset of 16.5% above a company's prevailing tax rate (25% or 30%) for expenditure above 2%.

Administrative reforms, including a three month time limit on time extensions and new powers for IISA to publish determinations, applied from 1 January 2021.

Key outcomes in relation to the RDTI for the 2019–20 income year, as at end-June 2021, include:[7]

- $12,698,224,308 in registered R&D expenditure
- 12,330 registrations, representing 14,040 R&D performing entities
- 10,821 registrations, representing 11,462 small to medium companies (81% of program participation)
- 2,265 companies registered that were new to the program (16.1% of program participation).

DISER has continued to support companies throughout the COVID-19 pandemic. In response to the pandemic, DISER allowed an extension of time for the registration of 2018–19 activities to 30 September 2020.

Looking ahead – Clarifying eligibility of software development activities

Eligibility of software development activities continues to be an issue for some program applicants and has been raised in the media, with inaccurate assertions that software development activities are ineligible under the program.

However, software R&D activities have always been a major part of the RDTI. In recent years information and communications technology (ICT) projects across all industry sectors have comprised more than 40% of total registrations and more than 30% of total R&D expenditure.

To provide greater clarity around the eligibility of software development activities going forward, AusIndustry continues to work with program applicants and other industry stakeholders to update existing guidance material.

Guidance products entitled 'Software activities in the R&D Tax Incentive' and 'Guide to common errors', originally released on 21 February 2019, were updated in October 2020. These guidance products are being refreshed in response to feedback received from the software industry. A draft of the software guidance was released for public comment between 17 May 2021 and 18 June 2021. Work with industry to finalise this guidance product is ongoing. DISER continues to collaborate with the software sector to improve understanding of eligibility for the RDTI.

Advice on software R&D eligibility was also provided in the refreshed 'Guide to Interpretation', released on 4 November 2020.

Looking ahead – Customer Portal

The RDTI is developing a new application process. From 17 May 2021, RDTI applicants are able to view a preview version of the customer portal and prepare their applications ready for submission when the portal goes live on 5 July 2021. The new customer portal will provide:

- improved security
- revised application form questions
- ability to view the status of applications in real time
- indicators of approaching deadlines.

Further information and details on the RDTI program are available on DISER's website www.industry.gov.au. Find out more information on the RDTI or if you are eligible for the RDTI program and apply via the customer portal at www.business.gov.au/RDTI or call 13 28 46.

[7] Please note that income year 2019–20 is incomplete. Companies with a substituted accounting period (SAP), ending after 30 June 2020 (but before 31 December 2020) may continue to register for the RDTI until 30 September 2021.

Case study
Vaxxas—Needle-Free Vaccines

Vaccinations have historically been given using syringes and needles. Vaxxas is working on a new, less invasive vaccine delivery technology that creates a more potent immune response. The company's flagship product, the Nanopatch, encompasses an array of micro needles that collectively deliver vaccines and immuno-therapeutics into the skin.

Image credit: Vaxxas

Image credit: Vaxxas

Vaxxas is a medical technology company, revolutionising the way vaccines are delivered. Vaxxas has grown from a small startup to a company with 60 full time employees based at the Translational Research Institute in Brisbane.[8]

Vaxxas came out of the University of Queensland and is commercialising novel technology that dramatically enhances the performance of existing and next-generation vaccines.
The company has developed novel technologies that enable vaccines to be applied to the tips of the micro-projections under sterile conditions.

The High Density Microarray Patch delivers the vaccine on its micro-projections efficiently to the high density populations of immune cells directly beneath the surface of the skin.
The micro-projections also trigger natural immuno-cellular alarms that cause vaccine components to be rapidly trafficked to lymph nodes eliciting a robust immune response.

Vaxxas Chief Executive, David Hoey, says the technology is likely to play an important role in future pandemics because it allows vaccines to be quickly and easily deployed to people.

8 https://www.csiro.au/en/work-with-us/funding-programs/programs/stem-plus-business/vaxxas

Technicians working with the high-density microarray patch in the Vaxxas cleanroom. Image credit: Vaxxas

Vaxxas demonstrated in recent clinical trials that vaccine delivered through its patch can produce six times the response from antibodies, in a much shorter timeframe, as the same amount of vaccine delivered into the muscle via needle and syringe.[9]

Mr Hoey explains that the technology was an early idea that needed to be transformed into a commercial reality and to do that requires a considerable R&D effort across all areas of the technology. The RDTI has helped to build the required data that Vaxxas can take to partners to encourage further investment into the company and open up more opportunities for collaboration with large pharmaceutical companies, universities and philanthropic organisations around the world.

The RDTI also allowed Vaxxas to get quickly into their first in-human study and do that work within Australia. Mr Hoey stated that this was an opportunity to demonstrate that the technology was safe and potentially effective prior to moving onto larger clinical studies.

He believes that the RDTI is massively important for R&D in Australia, and enables companies to take risks and perform experiments where the outcome of that work is uncertain. There is also a significant positive impact on the local and Australian economy due to the company's location in Brisbane.

Vaxxas' R&D pipeline has included several large R&D programs underway funded by the Bill & Melinda Gates Foundation, the World Health Organization, global pharmaceutical companies and Australian universities.[10]

"The R&D Tax Incentive helped attract further investment in our company and open up more chances for collaboration with large pharma companies, universities and philanthropic organisations around the world".

ANGUS FOSTER,
CHIEF DEVELOPMENT AND OPERATIONS MANAGER, VAXXAS

[9] https://www.tri.edu.au/Vaxxas
[10] https://www.tri.edu.au/Vaxxas

Case Study

Biarri Networks making high-speed internet a global reality

Biarri Networks uses theoretical mathematics to design optimal routes of fibre connections, in building national fibre networks and bringing the world closer to accessible and affordable high-quality internet. This dramatically reduces the cost and time involved.

Image credit: Biarri Networks

Quality of internet connection is important. A recent global ranking of internet speed revealed Australia's fixed broadband speed currently ranks at number 55.[11] Australia is addressing this issue via the roll-out of the National Broadband Network. Yet, a nationwide fibre network poses many challenges, particularly financial. In remote areas the cost of connecting a single premise can be higher than in city areas.

Algorithm-based software developed by Biarri Networks plays an important role in realising the roll-out of fibre network – in Australia, and globally.

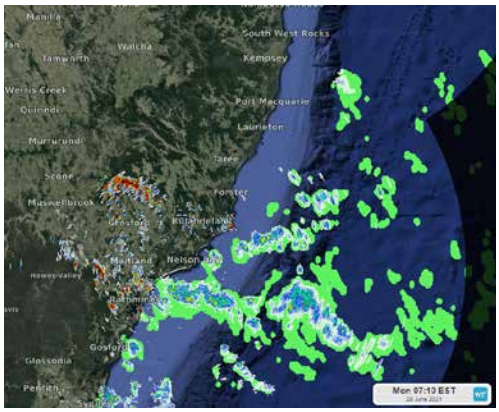
[11] https://finance.nine.com.au/personal-finance/australias-fixed-internet-speed-ranking-falls-two-places-to-55th/032cc5f5-0466-4067-b4fa-93eb34ff290e

The company's software is based on geographical databases that contain layers of infrastructure information. Through extensive R&D, Biarri Networks has achieved computations for 40,000 homes in a single run – the world's only software capable of delivering to this scale. The company is working towards increasing the computational capacity to 60,000 homes. This would make it possible to design a network for a suburb in one run.

CEO Bernard Blake stresses that for a small business like Biarri Networks, the RDTI plays an important role in supporting the development of first-to-market, innovative products. He explains that the additional funding that comes with the RDTI enabled the company to pursue more opportunities with prospects for high returns.

Support from the RDTI allows Biarri Networks to undertake more projects. The added financial security also helped the company hire 50 specialist employees. Mr Blake says there is a direct link between the RDTI program and taking some of the commercial and technical risks that are needed for the long-term success of the business. Investing in new talent also means more employment opportunities for science, technology, engineering and mathematics (STEM) graduates. The RDTI also helped Biarri Networks to invest in their relationship with universities and they have been able to offer sponsorships and internships to support STEM-related employment.

Mr Blake is also convinced that the software developed by Biarri Networks will make internet access cheaper for the end-user, thanks to savings during the design and construction process. The software would also support more companies to build fibre networks — which creates competition and ultimately saves costs for consumers.



Biarri Networks' software is based on geographical databases that contain layers of infrastructure information.

"The RDTI is a wonderful program that supports Australian technology and innovation. It's an important part of our economic development going forward".

BERNARD BLAKE,
CEO, BIARRI NETWORKS

Program Overview
Cooperative Research Centres (CRC)

"The Cooperative Research Centres Advisory Committee (CRCAC) has been pleased to see continued stakeholder support for both the CRC and Cooperative Research Centres Projects (CRC-P) streams, across industry, academia and government. It is encouraging to see the quality of applications continue to increase across the rounds and the variety of applications spread across a broad range of sectors seeking to solve important industry problems. The CRC Program continues to be a highly competitive process demonstrated by an abundance of high-quality applications. With the uncertainties of COVID-19 across the country, we have all had to adjust our ways of working. For the CRCAC, this has meant moving to a virtual environment for our meetings. The large number of applications have added to the experience, including conducting the CRC Round 22 Stage 2 interviews remotely, which lead to a very different dynamic. Nonetheless, the Committee was impressed with the quality of the applications and pleased with the outcomes, including the recently announced Round 22 CRCs: Digital Finance CRC; Marine Bioproducts CRC; and Heavy Industry Low-carbon Transition CRC".

"The CRCAC has been pleased to see the successful end-of-term transition of a number of CRCs, which have delivered significant outcomes across a range of measures. Equally, many of the earliest CRC-Ps have now concluded, similarly delivering a steady stream of technology development milestones. Furthermore, the Committee is pleased to note the continuing involvement of many stakeholders in the innovation ecosystem, demonstrating expansion of business investment in R&D within CRC and CRC-P partners and deepening collaborative relationships between industry, academia and government research organisations".

MS KYLIE SPROSTON
CHAIR, CRCAC.

Cooperative Research Centres Program

The CRC Program is a competitive, merit-based grant program that provides funding to support industry-led collaborative research partnerships solving industry-identified problems. The program aims to improve the competitiveness of Australian industries by fostering high quality research and encouraging small and medium enterprise participation in collaborative research.

The CRC Program has two streams:

1. CRCs, which undertake medium to long term, industry-led collaborative research for up to 10 years. CRCs must have at least one Australian industry entity and one Australian research organisation as partners
2. CRC-Ps which undertake short term, industry-led collaborative research for up to three years with grants capped at $3 million. CRC-Ps must have at least two Australian industry entities (one must be a small or medium enterprise) and one Australian research organisation as partners.

Over the life of the program (since 1990), $5.2 billion of Australian Government funding has supported the establishment of 233 CRCs and 154 CRC-Ps. Partners have committed a further $16.2 billion in cash and in-kind contributions.

During 2020–21, CRCs and CRC-Ps operated across a variety of sectors, including manufacturing, mining, healthcare, agriculture and the environment.

The total government commitment for new CRCs (3) and CRC-Ps (19) in 2020–21 was $198.4 million, which leveraged over $590.5 million in partner cash and in-kind contributions.

In June 2021, Round 22 CRC outcomes were announced, with funding totalling $158 million for three new CRCs to improve industry outcomes in fintech, heavy industry and the marine bio-industry.

Round 9 and Round 10 CRC-P funding outcomes were announced on 14 July 2020 and 2 January 2021, respectively. Nineteen projects were supported across both rounds, with grant funding totalling $40.4 million. Round 10 was opened to projects that had a specific focus on waste and recycling, and supported nine projects through $14.9 million in grant funding.

The CRC Program is well placed to support the Government's objectives of helping Australian manufacturers scale-up, become more competitive and build more resilient supply chains. Round 11 of CRC-Ps included a focus on the Government's NMPs, and saw a wide range of applications submitted that aligned to the six NMPs. Round 23 of the CRC Grants stream, which opened in June 2021, also encourages applications that contribute to the NMPs.

Looking ahead, the CRC Program will continue to develop important, real world, solutions to improve the competitiveness, productivity and sustainability of Australian industries, strengthen the economy and create jobs. As COVID-19 continues to create uncertainty for businesses and the research sector, the CRC Program will continue to support businesses to innovate, collaborate and capture new market opportunities.

A CRC Program impact evaluation is due to be completed in 2021. This evaluation will provide a cost-benefit analysis of the Program's impact and explore the Program's contribution to improving industry-research collaboration and commercialisation.

For more information on the CRC Program, visit www.business.gov.au, or call 13 28 46.

Active CRC-Ps and CRCs 2020–21

STATE	NUMBER OF CRC-PS (LOCATION OF LEAD PARTNER)	TOTAL CRC-P GRANT FUNDING (GST EXCL)	NUMBER OF CRCS (LOCATION OF HEADQUARTERS)	TOTAL CRC GRANT FUNDING (GST EXCL)
ACT	3	$8,354,179	1	$19,839,000
NSW	37	$87,910,948	8	$324,350,000
NT	3	$4,018,297	0	$0
QLD	21	$43,163,487	3	$140,451,000
SA	5	$8,977,679	2	$85,000,000
TAS	1	$2,385,067	1	$70,000,000
VIC	30	$64,559,702	7	$236,013,000
WA	14	$26,258,024	6	$201,500,000
Total	114	$245,627,383	28	$1,077,153,000

Case study
Food Agility CRC technical solution to oyster harvesting hassles

The New South Wales oyster industry produces some of the tastiest and safest oysters in the world. The industry abides by strict standards to ensure that oysters in the marketplace are safe to consume, but harvesting is often unnecessarily shut down due to lengthy water quality testing. The Food Agility CRC wants to fix that.

Heavy rain and subsequent run-off, or waterway exposure to contaminants, may affect water quality. At these times authorities are forced to have producers close their harvesting while the regulator conducts testing.

This adherence to safety comes at a cost. Testing for microbial contaminants, many of which come back clear, is done at off-site laboratories and can take up to seven days.

This means that every year, oyster farmers close harvesting for up to 82 days more than is necessary, with closures during key sales periods costing the industry up to $100,000 a day.

The Food Agility CRC will improve the profitability of the NSW oyster industry by reducing harvest closures while still maintaining strict safety standards.

More accurate and faster testing of water quality could save oyster farmers millions of dollars.

The first stage of this project was a series of farmer engagement workshops and sensor installations, which took place in June 2018.

The Food Agility CRC is working with the NSW Department of Primary Industries, (regulator of the NSW oyster industry), agtech company, The Yield and researchers at the University of Technology Sydney.

Together, they are focusing on digital technology and innovation – including the development of new, real-time tests for water quality using sensing technology to establish indicative measures of water quality, such as water temperature, pH and salinity.

The data collected from The Yield's sensors will create more accurate predictive models for oyster production, and will be the trigger for further research and innovations.

This project is one of the first on the agenda for the Food Agility CRC, which is receiving $50 million in Australian Government funding under the CRC Program.

The Food Agility CRC brings together 54 participants from food, technology and research sectors to solve issues so the Australian agri-food industry is more globally competitive and sustainable.

"It's an industry led combination of partners that bring the technology smarts, the research smarts, all those elements together beautifully".

DR MIKE BRIERS AO,
CEO, FOOD AGILITY

A woman and two men inspecting oysters in shells. Pambula Lake, NSW. Photo Attribution – Department of Industry, Science, Energy and Resources

Case study

PEGRAS Asia Pacific—Treating label contamination to increase plastics recycling

A $650,000 CRC-P grant has helped PEGRAS Asia Pacific and its CRC-P partners devise a world-first technological solution addressing the removal of adhesive residue on plastic bottles, a key barrier to the recycling of high-value high-density polyethylene (HDPE) materials worldwide.

The technology combines an impact delamination process to remove labels and glue from a commercial HDPE feed with a new chemical washing technology. The project partners are contributing a further $850,000 to support the CRC-P's work.

HDPE is a high quality material that is in demand for re-use, but current recycling technology is unable to effectively remove contaminants such as labels and adhesives, resulting in hundreds of thousands of tonnes of HDPE waste going to landfill. Recent changes to the export of waste materials from Australia make it even more important for the recycling industry to find a solution to this problem.

The project's objective is to produce 100% recycled HDPE for remanufacture in Australia, with the solution anticipated to be applicable to a range of polymer and plastic recycling practices around the world.

PEGRAS Asia Pacific is the lead partner. They are a technical solutions consulting company operating in the associated fields of chemistry, print and packaging media, industrial equipment, and related manufacturing sectors. They are collaborating with the University of Technology Sydney, University of Sydney, The University of New South Wales, NSW Smart Sensing Network, Labelmakers Group and Visypet.

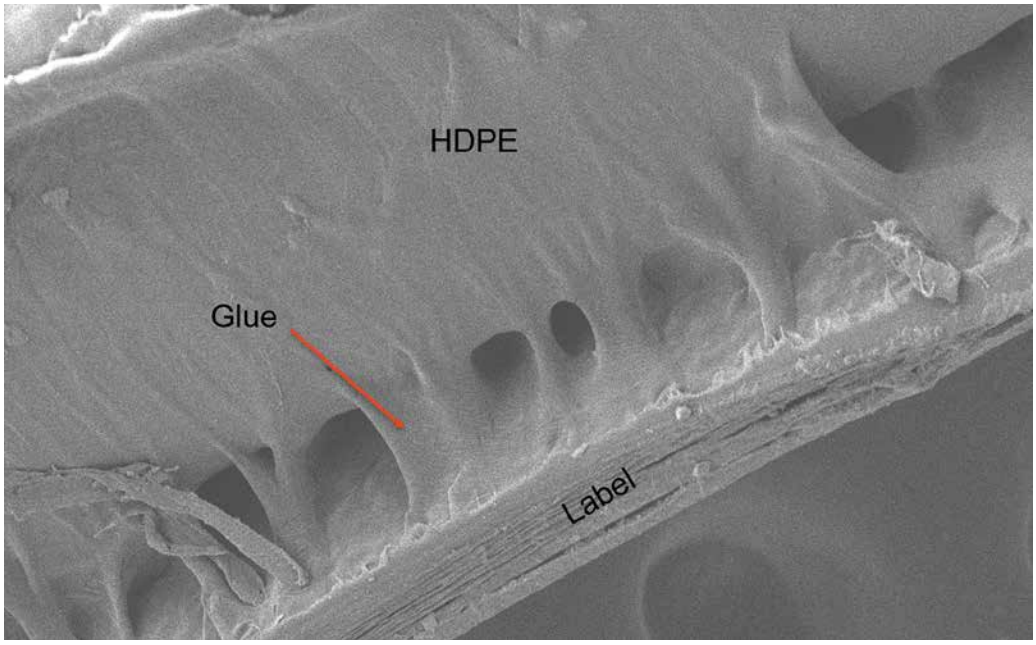
The CRC-P partnership provides a unique opportunity to bring together leading experts to find a solution to this worldwide industry problem.

Whilst reducing the impact of plastics on our environment and meeting the demands of a global market, the CRC-P will also open up greater economic opportunities in waste recycling and technology for Australians and create new job opportunities.

"PEGRAS believes in the circular economy. The CRC-P grant has helped us to develop solutions to clean labels and adhesive off HDPE milk bottles which increases their recyclability".

DR. STEPHANUS PETERS,
MANAGING CONSULTANT OF PEGRAS

Recycling 'wash reactor' mini-rig, tests label and glue variations to improve recyclability (UNSW).



Label glue is thinner than a human hair but very difficult to remove in the recycling process.

Program Overview
Venture capital programs

"A highlight for the Committee and the venture capital (VC) programs this year has been the continued strong growth in both fund numbers and capital committed. While there will be challenges ahead, we consider the sector is in a strong position".

"The Committee has, together with DISER, made great progress on a comprehensive education and compliance program. While this will deliver benefits over time the additional workload has been a challenge both for the Committee and DISER".

MR MARTY GAUVIN
CHAIR, INNOVATION INVESTMENT COMMITTEE

Venture capital programs

The Australian Government has a suite of programs designed to cultivate innovation and encourage VC investment in entrepreneurial startup and early stage companies. These programs are designed to stimulate the Australian VC sector by attracting both domestic and foreign capital into Australian VC markets.

The Venture Capital Limited Partnerships (VCLPs) Program aims to stimulate Australia's VC sector by attracting foreign investors. A VCLP is entitled to flow through tax treatment and its foreign investors do not pay capital gains tax on their share of returns the VCLP makes from eligible VC investments. The program is also open to domestic investors. VCLPs benefit Australian businesses as they increase the level of foreign investment available in the Australian VC sector.

The Early Stage Venture Capital Limited Partnerships (ESVCLP) program aims to increase VC investment in startups and early stage companies. ESVCLPs offer flow-through tax concessions to investors on their share of returns, assisting fund managers to attract pooled capital. In addition, investors in ESVCLPs receive a 10% investor tax offset on capital invested during the year. ESVCLPs encourage investment in startup enterprises with a view to commercialisation of activity and company growth.

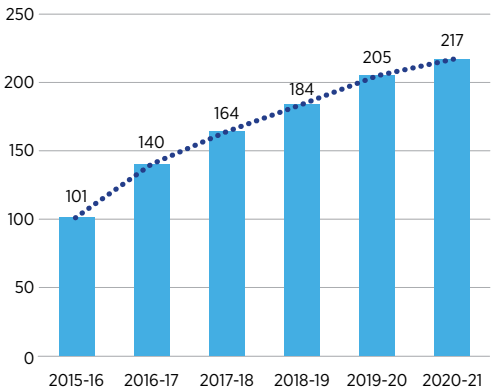
Australian Venture Capital Fund of Funds (AFOF) are available to Australian resident general partners to pool capital from limited partners for investment into VCLPs and ESVCLPs.

Eligible Venture Capital Investor (EVCI) registration is available for tax-exempt foreign residents under the *Venture Capital Act 2002*. Under the incentive, EVCIs disregard their capital gains or capital losses from eligible investments they have held for at least 12 months.

Program statistics

Over their lifetime, the total capital committed by registered partnerships is $19.86 billion with over $10.7 billion invested into an estimated 1,800 businesses.

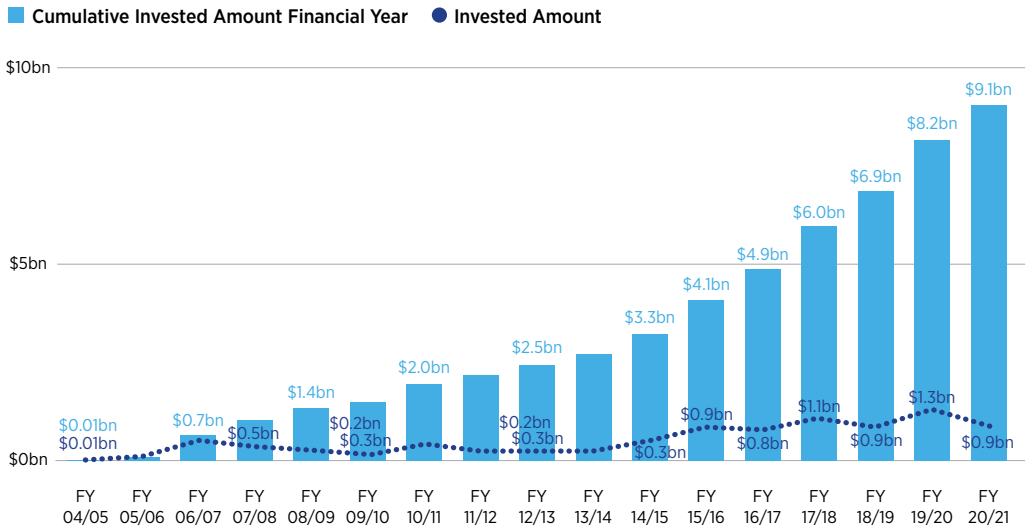
Number of registered partnerships



Growth of participation in VCLP, ESVLP and AFOF programs

VCLP outcomes

There has been steady increase of investments over time, demonstrating the continued positive impact of the VCLP program in attracting foreign investment into Australian businesses.



Graph: Growth of VCLP partnership investments over time

Venture Capital Limited Partnerships

Since program inception

$9.08bn Invested by VCLPs

600+ Businesses supported

In 2020-21

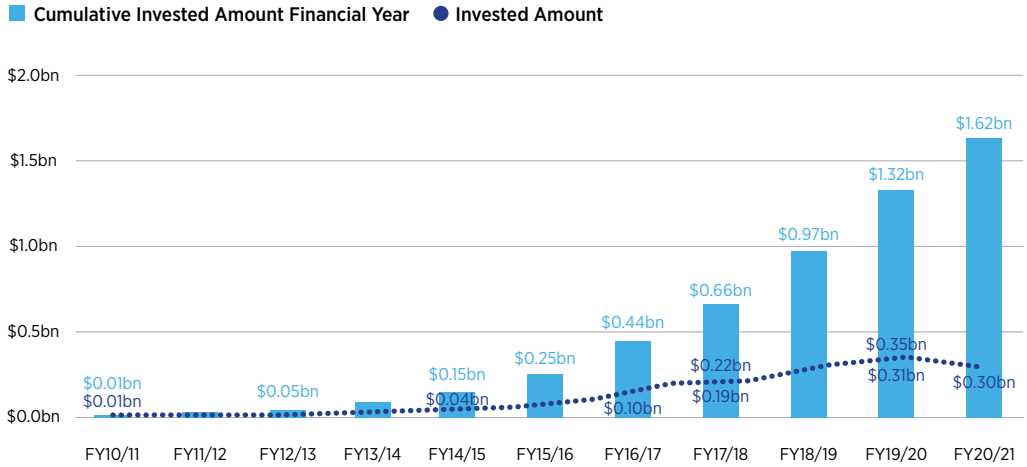
26 VCLPs registered

$13.4bn Current committed capital

As at 30 June 2021, there were 93 conditionally and unconditionally registered VCLPs. The committed capital is the amount investors have agreed to contribute to a partnership.

ESVCLP outcomes

Boosting investment in Australian businesses is critical for commercialising new ideas and encouraging new startups.



Graph: Growth of ESVCLP partnership investments over time

Early Stage Venture Capital Limited Partnerships

Since program inception

$1.62bn Invested by ESVCLPs

1,200+ Businesses supported

In 2020-21

27 ESVCLPs registered

$3.2bn Current committed capital

As at 30 June 2021, there were 133 conditionally and unconditionally registered VCLPs. The committed capital is the amount investors have agreed to contribute to a partnership.

Disclaimer:

All figures are current according to latest data. This may vary from previously published data for the same time period due to additional information supplied by customers. Committed capital and investment data is based on preliminary financial year figures, current as at 30 June 2020.

For more information, detailed guidelines are available online for fund managers interested in establishing and registering VC partnerships.

Companies seeking private investment to commercialise ideas and scale their businesses are encouraged to view the lists of registered partnerships and approach fund managers directly. www.business.gov.au/venture-capital

Case study

Blackbird Ventures: partners with Morse Micro to deliver next generation Wi-Fi.

Reinventing global Wi-Fi through the production of a new generation of chips is an ambitious idea. Turning their brilliant idea into a commercial product was where the challenge started for Morse Micro.

Robyn Denholm, Blackbird Ventures and Michael De Nil, Morse Micro.

Morse Micro has developed a new generation of ultra-long range Wi-Fi chips that reach 10 times farther than conventional Wi-Fi, with better penetration through walls and a much lower power consumption. It is an innovation that could revolutionise wireless connectivity in a world where everything from your phone to your fridge is increasingly online.

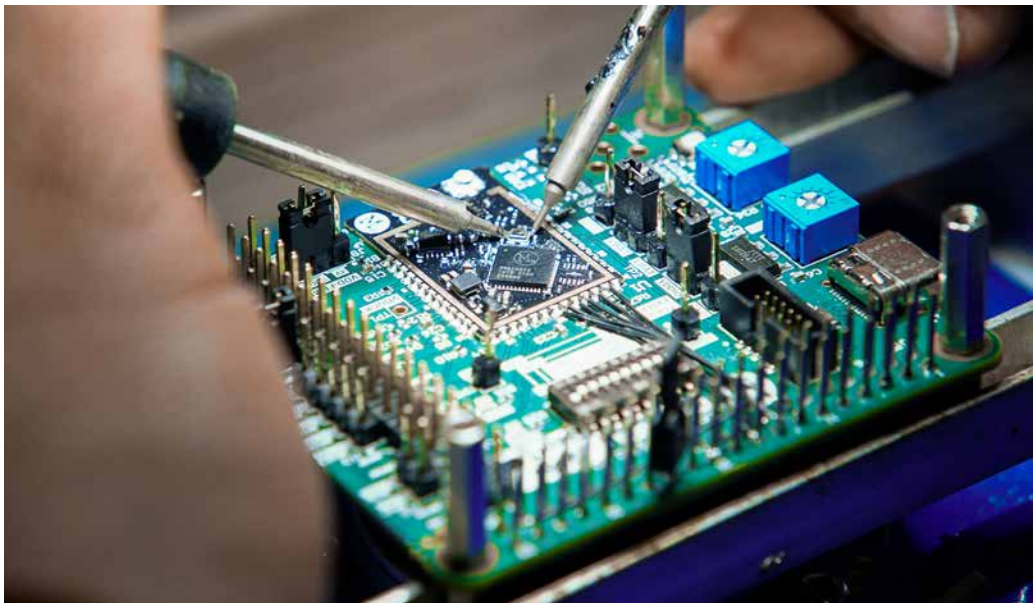
For Morse Micro, seeking help from a VC firm early on in their journey has meant they are on their way to realising their dream.

"When looking for investors, we looked for partners who are as ambitious as we are," says Michael De Nil, CEO and co-founder at Morse Micro.

"It's a big change, evolving from a pre-revenue startup, into a successful, multinational company. It's been really great having the Blackbird partners along the journey with us. They've taught us a lot about fundraising, about scaling the company, about growing into a multinational company."

Blackbird Ventures has a track record of investing in some of the most exciting startups in Australia and New Zealand, including the wildly successful Canva.

More than just money, Blackbird Ventures invest in people. "It's about the idea and it's about the founders. It's about the team they assemble to actually realise that vision," says Robyn Denholm, Operating Partner at Blackbird Ventures.



Morse Micro Wi-Fi chip.

"What we do is create a network of ambitious founders across the country that mentor and coach each other. The Blackbird team actually help in their journey as well.

"It's been phenomenal in terms of creating this cohort of founders that support each other, help each other through the peaks and valleys – and they're able to learn from each other in terms of successes. That's a very important ingredient."

Establishing solid relationships early in the startup journey can also help when it comes to scaling and success.

"Like any deep tech startup, there is a long period of time spent on research and development. Morse Micro was no different. They've had an amazing journey. They have assembled a world class team," Robyn says.

Since the first Blackbird investment of $25,000 in 2016, new and existing investors have raised almost $50 million more, enabling Morse Micro to become Australia's largest semiconductor employer, hiring over 100 people.

"The advice I'd give to other companies is that venture capital is for the brave of heart. It allows you to either grow and scale aggressively, or die quickly," says Michael.

"You can shoot for the stars. You can recruit the best talent, and you can build an extremely valuable company in a very short time."

Blackbird Ventures has four early stage venture capital limited partnerships registered under the Venture Capital Act 2002, investing into innovative early stage businesses and helping them grow.

"It's been really great having the Blackbird partners along the journey with us. They've taught us a lot about fundraising, about scaling the company, about growing into a multinational company."

MICHAEL DE NIL,
CEO AND COFOUNDER, MORSE MICRO

Program Overview
Biomedical Translation Fund

"The financial year saw the Biomedical Translation Fund (BTF) progress with all three fund managers making $46.4 million of commitments and investments made up of:

1. *Kira Biotech, $9.5 million (OneVentures)*
2. *Closed Loop Medical $10 million (BioScience Managers)*
3. *PolyActiva Pty Ltd $5.08 million (Brandon Capital Partners)*
4. *Adherium Ltd $10 million (BioScience Managers)*
5. *Ena Therapeutics $11.9 million (Brandon Capital Partners)*

Most significant was the BTF investment in Australian biotech company Ena Respiratory and their innovative nasal treatment deployed to fight COVID-19, common colds and the flu. INNA-051 works by stimulating the innate immune system, the first line of defence against the invasion of pathogens into the body".

"The BTF Committee could not convene in person during the year and received written briefing. More flexible communications have become extremely valuable for us and businesses in general in the context of this infectious COVID-19 outbreak".

MR PETER WILLS AC
CHAIR, BTF COMMITTEE

Biomedical Translation Fund

BTF is an equity co-investment VC program. It combines public and private funds to invest in early stage companies and support the commercialisation of innovative biomedical research.

Funds for investment total more than $500 million, made up of $250 million of Commonwealth capital and $251.25 million contributed by private investors.

Investing to develop and commercialise biomedical discoveries has twin benefits:

1. Translating cutting edge research into products and services that can improve the long term health of Australians
2. Supporting companies with high potential to grow the economy and create skilled employment opportunities.

Key outcomes

As at 30 June 2021, the BTF fund managers have publicly announced 22 investments totalling $247.8 million, into innovative biomedical companies.

Funding has been used to support the development of a range of biomedical discoveries, from new treatments of food allergies, autoimmune disease and women's health, to smart and robotic medical devices, artificial hearts and vaccines.

How the BTF works

Three fund managers partner with the Commonwealth and private investors to foster game-changing breakthroughs: Brandon Capital Partners, OneVentures Management and BioScience Managers. They demonstrate expertise in identifying high-potential companies, finding gaps in the market and growing concepts from seed to fruition.

Biomedical discoveries include: therapeutic, medical or pharmaceutical products, processes, services (including digital health services), technologies or procedures that represent the application and commercialisation of the outcomes of research that serve to improve health and wellbeing. It does not include alternative or complementary medicine, or traditional medicine.

BTF fund managers not only invest in promising biomedical discoveries, they encourage the growth of companies developing products by providing guidance, skills, resources and expertise.

All BTF investment decisions are made by the selected fund managers. The Government has no role in selecting investments, technologies or markets, but ensures all investments are consistent with the requirements of the program guidelines. This approach has been taken to ensure the venture capital expertise required to invest in commercialisation opportunities is provided by those most qualified.

Announced in December 2015, the BTF was a key initiative under the National Innovation and Science Agenda. The Department of Health has policy responsibility, while the Department of Industry, Science, Energy and Resources administers the program.

Following a competitive, merit-based selection process, the three private sector BTF fund managers were licensed in December 2016. This process was conducted by the BTF Committee under the auspices of the then Innovation and Science Australia Board (now Industry Innovation and Science Australia).

Support is available for early stage companies with intriguing ideas to pitch their proposal to the fund managers for a share in the dedicated VC on offer.

Find out more about the BTF fund managers and current investments via: www.business.gov.au/BTF.

Case study

Brandon Capital Partners and Ena Respiratory investing in Australia's health and wellbeing

Ena Respiratory is developing a potential game-changer in how we deal with the treatment and prevention of viral respiratory infections, from COVID-19 to the common cold.

Bio21 Molecular Science and Biotechnology Institute, Melbourne. Image credit: Screencraft Media

Viral respiratory infections are among the most common causes of sickness and death, inflicting epidemics and pandemics and creating ongoing health and economic concerns worldwide.

Ena Respiratory has developed the INNA-051 treatment, which targets the primary site of most respiratory infections, such as SARS-CoV-2 (the strain of coronavirus that causes COVID-19) and influenza. Applied with a nasal spray, the treatment activates the body's immune defence mechanisms in the respiratory tract.

Developing the research from an academic paper to a product on the pharmacy shelf takes time, money and the right people.

Brandon Capital Partners is focussed on commercialising some of the most promising biomedical innovations in Australia.

Through the BTF, they have committed $11.9 million to Ena Respiratory to test the concept and bring it to reality.

Chris Smith is one of the investment directors at Brandon Capital Partners, responsible for finding ideas and investing in new companies that will hopefully change the world for the better.

"Biomedical science is not the same as other investment spaces. Fundamentally, it relies on biology, usually human biology – and that is complicated and unpredictable."

"It takes a long time, sometimes five to ten years, just to get to human proof of concept, the point at which large pharmaceutical companies usually get involved in technologies and take them to the world."

Christophe Demaison, Ena Repiratory and Chris Smith, Brandon Capital Partners. Image credit: Screencraft Media

Christophe Demaison, Managing Director and CEO of Ena Respiratory, sees venture capital investment as crucial to bridge the gap.

"If we didn't manage to get the venture capital funding, I don't think the research would have been developed into a product that could ultimately be made available to patients."

"It has taken 5 years to translate the product concept that came out of the University of Melbourne to start the phase one clinical trial."

"Investment from the Commonwealth has been used to support the research and development activities of the company, including clinical trial in Australia."

Investments in life sciences companies are long-term and rely on a combination of strong relationships, commitment and commercialisation expertise.

"Over the last 5 years that I've been working with Brandon Capital it has been really important to work together and listen to their goals and make sure our goals are aligned", Christophe says.

Chris agrees, offering some salient advice for biomedical companies seeking venture capital investment.

"Do your due diligence on the people you're speaking to. Know who you're coming to speak to and what their strategic interest is so that you can really have a good conversation with them. Come with the idea and take them along the journey with you."

"This business is a lot about trust and relationships - establish that connection as early as you can. It takes time."

Brandon Capital Partners is a licensed BTF fund manager. The BTF is an Australian Government co-investment venture capital program, combining public and private capital to support the commercialisation of biomedical research to achieve significant national economic and health outcomes.

"If we didn't manage to get the venture capital funding, I don't think the research would have been developed into a product that could ultimately be made available to patients."

CHRISTOPHE DEMAISON,
MANAGING DIRECTOR AND CEO, ENA RESPIRATORY

Program Overview
Entrepreneurs' Programme

"The Entrepreneurs' Programme Committee (EPC) has been at full strength during the 2020–21 financial year. In February 2021, the Committee held its biggest single meeting to consider 16 Accelerating Commercialisation (AC) grant applications worth almost $10.5 million".

"AC, Incubator Support Initiative (ISI) and the Business Research and Innovation Initiative (BRII) represent key elements within the national innovation ecosystem that have the capacity to help drive growth and create other national benefits".

"BRII continues to support startup opportunities while effectively providing solutions to public sector challenges. As an example, in response to the BRII Round 2 challenges, the technology developed to detect biosecurity risks of hitchhiking pests and contaminants on shipping containers with hyperspectral cameras from ship to shore along with handheld devices, is not only ground breaking but could be a world first in the biosecurity field. The Department of Agriculture, Water and the Environment has teamed up with the two successful applicants to further develop this work".

"A key challenge has been shifting Committee meetings online in light of COVID-19, as well as engaging with a new cohort of Commercialisation Facilitators (CFs). These meetings have continued to be both productive and successful through the ability of Committee members to draw on their real world insights and experiences. They have mentored and assisted CFs in understanding role expectations, and the structure of meetings supported by a clear agenda and revisiting meeting procedures and protocols to suit an online environment".

Committee highlight during the year

"Commercialisation is the key process that drives returns to R&D investment and innovation in the economy. The work of the Committee is to apply commercial experience across key sectors and independence to the merit assessment process. This year the transformation of the applicant management process introduced a new community of facilitators which proved to be a successful input to our Committee's work. As at the end of May 2021 the Committee made approval recommendations for 75% of applicants to the Minister".

Challenges the Committee faced during the year

"2020–21 represented a year of unique challenges as the early stage commercialisation sector diverged into those projects where COVID-19 stimulated some applicants' growth to become a great accelerator, those whose supply chains, distribution partners and availability to financial resources were somewhat disrupted and those whose plans needed to dramatically change. The Committee's merit assessment process took these changed circumstances into account to provide recommendations that were appropriate in these challenging and rapidly changing circumstances".

MR ANTHONY SURTEES
CHAIR, EPC.

Entrepreneurs' Programme

The Entrepreneurs' Programme (EP) delivers advice and grants to enable high potential businesses to strengthen, grow, innovate and commercialise nationally and globally.
In addition to improving outcomes for clients, it also improves outcomes for the broader economy, regions, industries and communities.
EP is delivered through a suite of unique offerings:

- *Accelerating Commercialisation* works with businesses, entrepreneurs and researchers to develop novel products, processes or services through to production and on to the market
- *Growth* works with businesses to help them grow by improving their management capability, capacity to trade and export in global markets, and their supply chain performance
- *Incubator Support Initiative* provides new and existing incubators with funding to help startups develop the capabilities to succeed in international markets. As part of the 2020–21 Federal Budget the funding for Incubator Support was reduced and as a result no new Incubator Support applications have been accepted from May 2021
- *Innovation Connections* connects businesses with the research sector and supports them to undertake collaborative research projects to develop innovative solutions
- *Strengthening Business* works with bushfire-affected businesses to help them recover and strengthen their business systems, operations and strategies into the future.

In 2020–21, EP supported 4,719 businesses.

In 2020–21, a total of 3,310 EP services were approved, with a total of 1,737 matched grants worth $78,590,454 including:

- *Accelerating Commercialisation*: 65 grants worth a total of $35,787,908
- *Growth*: 1,332 grants worth a total of $26,583,437
- *Incubator Support*: 27 grants worth a total of $2,756,104[12]
- *Innovation Connections*: 313 grants worth a total of $13,463,005.

The program is delivering results. A 2021 survey of EP businesses (EP clients) shows that, on average, EP clients increase their annual turnover by $1.57 million and create 4.3 new jobs a year after leaving the program.

For each $1 of grant funding awarded, AC clients have been able to raise on average $3.75 in new capital.

As at 30 June 2021, the ISI has invested in 65 incubator projects, which deliver services to over 1,500 startups, helping these businesses to build skills to commercialise overseas.

As of January 2021, data from 152 Graduate Placement Final Project Reports indicate that 90% of graduates were offered employment by the business at the end of an Innovation Connections project. This is equivalent to 130 early-stage researchers securing positions in industry as a result of these Innovation Connection projects.

In its first year, Strengthening Business has provided tailored support to more than 400 bushfire-affected regional businesses in New South Wales, South Australia and Victoria. The measure will continue to 30 June 2022.

[12] New applications for the Incubator Support Initiative were not accepted after 1 May 2021.

During the first wave of lockdowns in March-June 2020, the program responded rapidly to its businesses, pivoting to digital and remote delivery of services, and focusing advice on helping businesses to bridge the crisis. From 1 March to 30 June 2020, over 2,500 EP businesses received targeted one-on-one advisory service. For context, in an average year, EP provides approximately 3,500 tailored services. This approach has since been incorporated into the business as usual engagement model.

EP will deliver targeted procurement Learning Events for SMEs, focusing on how businesses can access supply chains (including with government buyers) and work in major project environments over four years from 2021–22. This initiative forms part of the 2021–2022 Budget measure Supporting Small and Medium Enterprise Participation in Commonwealth Procurement.

Through Growth the Cold Chain Optimisation SMART project will run a number of workshops and peer group sessions commencing next financial year that will focus on challenges faced in Western Australia and the gains from improving cold chain practices and upskilling of workforces.

From October 2021, the program will commence its impact evaluation.

For more information on how the Entrepreneurs' Programme can transform your business, visit http://www.business.gov.au/EP or call 13 28 46.

170+ INDUSTRY EXPERTS
PROVIDING INDEPENTENT **ADVICE** TO BUSINESSES

1,294 learning events
DELIVERED to **15,773** **participants** to date

20,934 INDIVIDUAL BUSINESSES
received **tailored** services to date

Customer outcomes

on average, 12–18 months after accessing EP, surveyed businesses:

Created **4.3** **NEW JOBS** (FTE)

$1.57 MILLION increased turnover

An additional **$3.75** in new capital **for every $1** of government investment

Case study
Life Cell

A harrowing sea experience was the catalyst for a couple of mates to create their Life Cell marine safety invention. The Life Cell is a high-visibility buoyancy device that stores essential safety equipment and is mounted in a handy position, but with the ability to float free of its bracket if submerged.

Life Cell Marine Safety received an Accelerating Commercialisation grant to break into the US market.

Early 2021, Life Cell hit the news when four spear-fishermen were rescued off the coast of Port Stevens after finding themselves in trouble after their boat capsized. Grabbing Eskys, lifejackets and their trusty Life Cell, they floated for 45 minutes before being rescued.

An eerily similar situation inspired co-founders Scott Smiles and Jenny Aiken to redefine how safety equipment is stored and used on boats.

Scott, his friend and their two young sons were stranded at sea after their boat sank 10 years ago. Left clinging to an Esky, and thankfully with a safety beacon in hand, they were rescued. This ordeal lead to the creation of Life Cell. Part floatation device and part container to store safety equipment, including emergency beacons and flares.

Bringing to life a genius idea is one thing, being able to commercialise it is another. Attending six trade shows in the US, providing samples, modifying packaging and websites and training sales reps is a very expensive process, so Life Cell Marine Safety turned to the AusIndustry Entrepreneurs' Programme for help. Life Cell Marine Safety was awarded a $370,000 Accelerating Commercialisation grant to develop their marine safety device to reduce the number of people losing their lives at sea.

As well as international exports, The Life Cell is also being sold all over Australia and New Zealand, and is used on vessels operated by NSW Roads and Maritime Services and Department of Primary Industries. Life Cell is also endorsed by Westpac Life Saver Rescue Helicopter, who rescued the business partners on that fateful day.

Not content to simply enjoy their success, Life Cell has given back to the community by participating in a marine safety program which has helped to save lives in the Torres Strait and was funded by the Australian High Commission.

Coming full circle, Jenny Aiken has since joined the program as a commercialisation facilitator to help other business owners achieve their commercial success.

Life Cell CEO Jenny Aiken and Director Scott Smiles, with their award winning marine safety device.

"The grant provided us with much needed financial assistance to allow us to gain traction in the US market. I am not sure that we could have achieved this without the grant. We are incredibly grateful for [AusIndustry's] support at this critical time for our company."

JENNY AIKIN,
CEO, LIFE CELL MARINE SAFETY

Case Study
Solcast

In 2016 James Luffman and Doctor Nick Engerer decided to apply complex science to real world problems. With a background in and a passion for meteorology, the duo seized the opportunity to gather and produce solar radiation data to enable networks to better predict their solar modelling and forecasting. This data has revolutionised weather forecasting for the renewable energy sector by predicting 600 million solar forecasts around the world every hour.

Dr Nick Engerer, Director, CTO and Co-founder of Solcast, accessed AusIndustry to help commercialise their weather forecasting prototype.

Nick has always been fascinated with the weather–in fact, he once contemplated life as a TV weatherman back in his college days in Ohio.

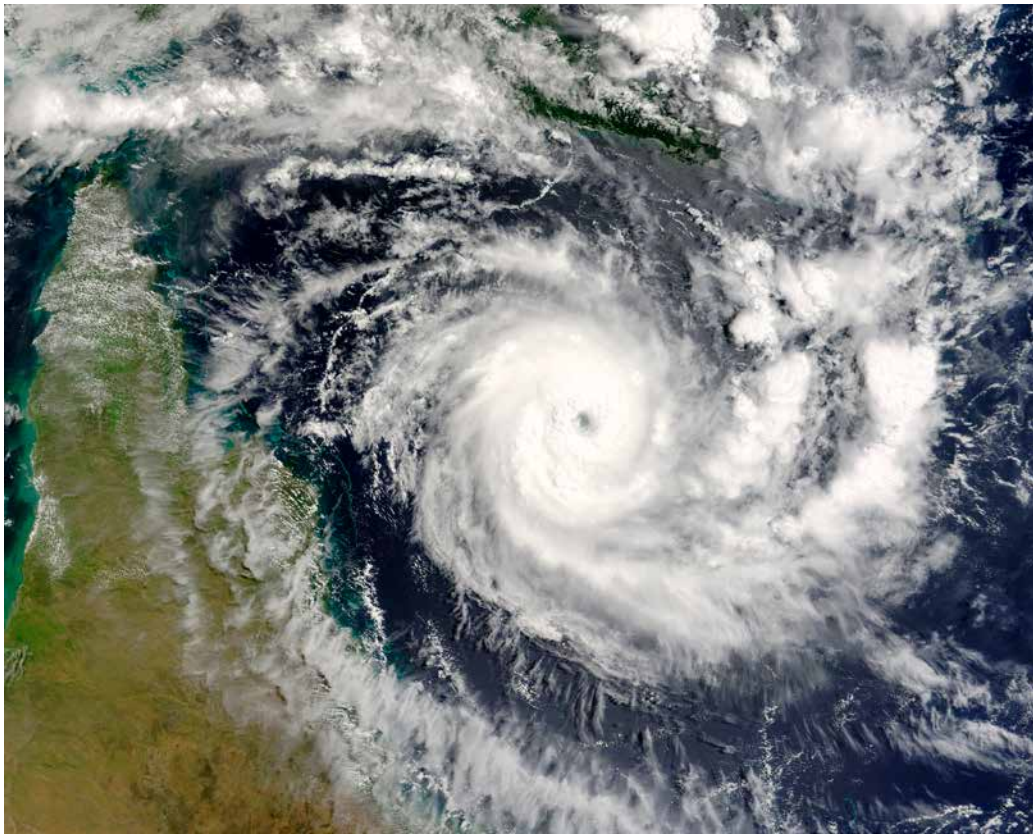
Thankfully, he instead formed Solcast in 2016 with friend Dr Nick Engerer and created the prototype for NowCasting, a cost-effective forecasting tool which can track and predict renewable energy output in real time.

Traditional weather radars are expensive and not available in every location. To be able to take their NowCasting prototype to market, Solcast needed a little extra support, so they sought the help of AusIndustry through the Entrepreneurs' Programme.

Solcast have been awarded $880,000 in total from two Accelerating Commercialisation grants to commercialise the NowCasting prototype and progress to the next stage of applying the systems to rainfall and storms.

Dr Engerer explains that the most advantageous thing about this opportunity is the ability to see rainfall where there is not weather radar coverage.

With help from AusIndustry, Solcast's clients range from Weatherzone to big solar farms, to energy companies and they are well on their quest to revolutionise weather forecasting by enabling them with the facilities to launch their prototype to market. Nick jokes the 'sky's the limit' for the growth of Solcast.



Precipitation now casting and radar clutter_300 dpi: Solcast is a global solar data services company specialising in satellite-based measurement and weather forecasting.

"We now have the technology for precipitation, operational around the world and Accelerating Commercialisation was a big part of that".

DR. NICK ENGERER,
CTO, SOLCAST

Program Overview
Business Research Innovation Initiative

The Business Research Innovation Initiative (BRII) aims to drive innovation within small and medium enterprises (SMEs) and government by encouraging SMEs to develop innovative solutions to public policy and service delivery challenges. SMEs with the best proposals to solve each policy challenge receive grants of up to $100,000 to test the feasibility of their ideas over three months. Successful SMEs are then eligible for up to $1 million to build on their feasibility studies and develop a working prototype or proof of concept.

Australian Government agencies work closely with SMEs to develop the solutions and, at the conclusion of the project, potentially procure the solutions. SMEs retain intellectual property rights, and the right to sell in domestic and global markets, allowing them to commercialise their solutions.

To date, the BRII has supported 58 innovative SMEs, providing 73 grants over four rounds and 19 challenges. In excess of $20 million in grant funding has been provided to Australian SMEs to bring new products and technologies to market.

Over the financial year:

- Proof of concept prototypes have been completed to demonstrate solutions to challenges relating to tourism, biosecurity and national archives. The six SMEs involved are now exploring commercialisation opportunities.
- A total of 23 SMEs completed feasibility studies for challenges focused on oceans, soil and water quality and technologies advancing recycling. Successful recipients of the proof of concept grants are scheduled to be announced in September 2021.
- A Regulatory Technology (regtech) round of the BRII, launched in April 2021, focused on decreasing regulatory burden, reducing unnecessary regulatory compliance and streamlining regulatory processes. Successful recipients of the feasibility grants are scheduled to be announced in October 2021.

CHALLENGE SELECTION

1. Australian Government Agencies submit challenges
2. Industry Innovation and Science Australia shortlist challenges through assessment process
3. Minister approves shortlisted challenges
4. Challenges are announced by the Minister

FEASIBILITY STUDY

1. SMEs apply to respond to a challenge
2. Industry Innovation and Science Australia assess applications
3. Minister approves recommended applications for funding
4. Successful SMEs conduct feasibility studies

PROOF OF CONCEPT

1. Successful SMEs apply for proof of concept grant
2. Industry Innovation and Science Australia assess applications
3. Minister approves recommended applications for funding
4. Successful SMEs conduct proof of concepts

- The BRII will continue as a demand-side innovation policy lever for government agencies, to help stimulate SME research and development and deliver novel solutions to government challenges. Ongoing rounds of the BRII will be shaped by the outcomes of a program evaluation that is underway.

For more information on the BRII and previous grant recipients, refer to www.business.gov.au/BRII.

Case study
Trellis Data

Utilising BRII funding and working with the Department of Agriculture, Water and Environment (DAWE) has enabled Canberra-based AI company, Trellis Data, to develop a new Biosecurity Automated Threat Detection System. This project was in response to DAWE's challenge, managing the biosecurity risks of hitchhiker pests and contaminants on shipping containers.

Image courtesy Trellis. Trellis Data's new Biosecurity Automated Threat Detection System (BATDS) inspecting shipping containers.

Incoming shipping or sea containers are a pathway for hitchhiking pests, organisms, diseases, weeds and contaminants to enter Australia and create biosecurity risks to Australia's $60 billion agriculture industry. DAWE manages the biosecurity risks associated with shipping containers, however manually inspecting containers can be challenging, time-consuming and costly.

This is predicted to become more challenging as trade volumes and container arrivals increase. DAWE required a solution which provided an alternative to human inspection. The solution needed to consider: efficient movement of containers; aptitude for use by a wide range of staff; remote sampling and diagnosis; real time data capture and results; operation in future environments; and scalability.

Image courtesy Trellis. Trellis Data's new Biosecurity Automated Threat Detection System inspecting shipping containers.

Trellis Data was able to develop a real-time AI-supported sensor system to address this challenge. Cameras were mounted on platforms at wharfs and ports – the live feed from the cameras were sent through to Trellis Data's pest detection platform, which could identify pests as small as five millimetres in length. The benefit of this system is that it enables the identification of pests in real time, without slowing down the container movements from international ships to Australia's borders. The developed solution is able to check 100% of the containers coming into Australia, and has demonstrated the ability to detect pests above the current inspection rates of biosecurity teams. Not only does this provide enhanced biosecurity for Australia's agriculture sector, it is a fully automated system. This system could be rolled out nationally, and to other countries.

Trellis Data's ground breaking technology is trained to detect many different types of pests and contaminants, and is additionally capable of detecting new pests or contaminants. Trellis was able to refine their machine learning models through research and development at the Port of Brisbane, while working with the private sector and government.

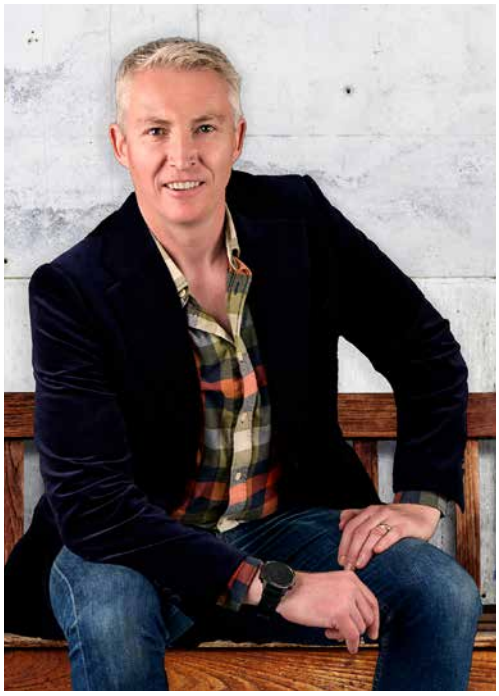
"Solving this problem for the Australian Agriculture industry has been a challenge, but we couldn't be prouder of the accuracy of our results".

MICHAEL GATELY, CEO, TRELLIS DATA

Case study

Hemisphere Digital formerly known as Wejugo.

Utilising BRII funding and working with Austrade has enabled Wejugo to develop the Hemisphere Digital platform, which generates accessible, ready-made insights on how Australians travel and spend money. By combining digitally sourced data into a comprehensive set of tourism benchmarks, Hemisphere Digital opened up the potential for users to quickly identify the impact of tourism and population movements across a number of key metrics, in near real time. This was in response to Austrade's challenge focused on intelligent data to transform tourism service delivery.



Mike Welling, founder of Wejugo.

Tourism cuts across many economic segments with widespread benefits. The industry's fragmented and diversified nature creates an environment that is difficult to measure in statistically valid ways, particularly when sharing economic impacts. Austrade required a solution to identify, unlock, integrate and leverage new data sources. The solution would enable government and business to support tourism, promote tourism outwardly and complement work underway to measure the demand side of tourism.

The BRII grant enabled the team at Wejugo to develop a visitation and tourism insights platform that has wide application across the tourism sector – from quantifying the success of tourism recovery efforts at a policy level, right down to the hyperlocal impact of adventure tourism activities to natural areas.

Image courtesy Wejugo. Hemisphere Digital Platform

The Hemisphere Digital platform combines data from transactional, telecommunications, social media and other digitally sourced data into a 360 degree view of tourism impacts across economic, environmental and cultural performance metrics.

The platform has since been used and tested by a number of large organisations during the pre-commercial launch phase, including by government institutions, state tourism agencies and other partners. It has seen the transformational impact that having access to real data insights can have on businesses looking to access population movements, spend patterns and shifting visitor behaviours.

The Hemisphere Digital platform demystifies data and supports businesses of all sizes to glean the information they need to drive innovation and sustainable outcomes for businesses and society. The platform has attracted investment internationally due to its global potential.

"It is our hope that access to affordable and insightful data can become a transformative vehicle for economic and social benefit right when it is needed most in a heavily disrupted tourism sector."

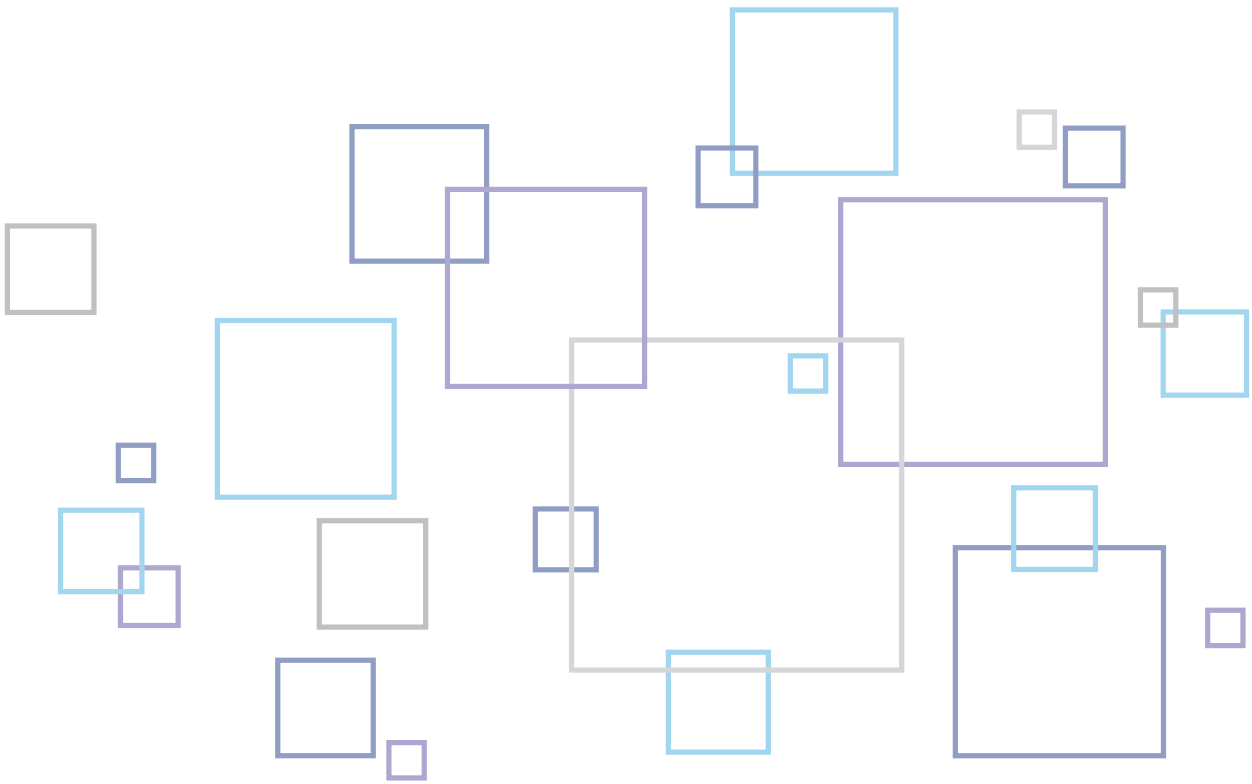
MIKE WELLING, FOUNDER/CEO, HEMISPHERE DIGITAL

Legacy programs

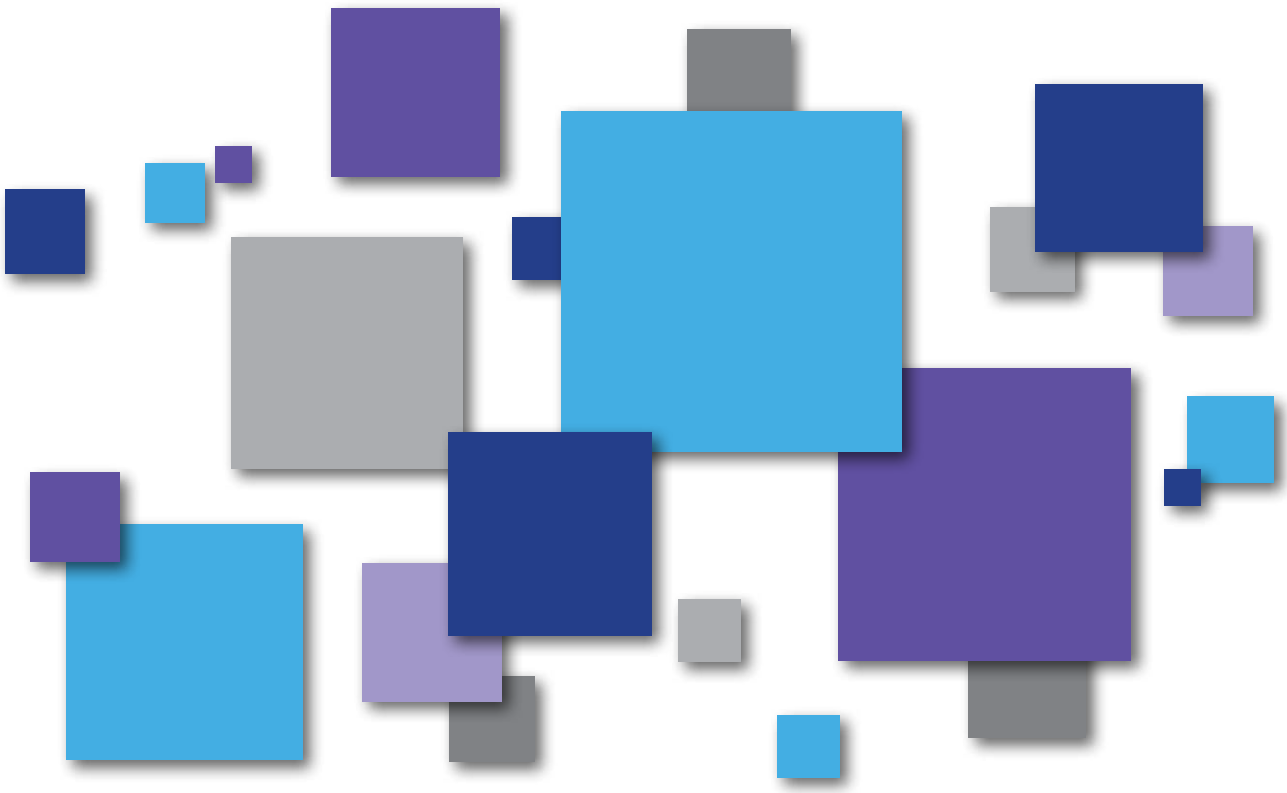
As at 30 June 2021 IISA continues to monitor the following programs which are now closed to applications:

- Innovation Investment Follow-on Fund
- Innovation Investment Fund
- Pooled Development Funds
- Pre-Seed Fund.

DISER will continue to work with legacy program participants.



Section Two
GOVERNANCE



Industry Innovation and Science Australia

Through IISA's partnership and administration of the Government's industry research and development, innovation and venture capital programs, it seeks to encourage a more entrepreneurial Australian innovation, science and research system.

In 2020–21, IISA reported to the Minister for Industry, Science and Technology, the Hon Karen Andrews MP, and subsequently the Hon Christian Porter MP in accordance with the Board's legislative requirements as described below.

Legislation

The Industry Research and Development Act 1986

IISA operates under the authority of the *Industry Research and Development Act 1986* (IR&D Act). The aims of the IR&D Act are to:

- facilitate the provision of independent strategic advice about industry, innovation, science and research
- promote the development of, and improve the efficiency and international competitiveness of, Australian industry by encouraging research and development, innovation and venture capital activities.

IISA functions and powers

IISA's functions are set out in the IR&D Act and associated Ministerial Directions. The Board's responsibilities include:

- provision of independent strategic whole-of-government advice to government in relation to industry, innovation, science and research matters
- promotion of investment in industry and Australia's innovation, science and research system
- co-administration, monitoring and operation of the R&D Tax Incentive
- registering, monitoring and revoking the registrations of Venture Capital Limited Partnerships and Early Stage Venture Capital Partnerships
- co-administration and oversight of the Cooperative Research Centres Program
- strategic oversight of the Entrepreneurs' Programme, which includes administration and monitoring of the Accelerating Commercialisation and Incubator Support Initiative
- monitoring ongoing projects under programs which are now closed to applications (see list of legacy programs on page 52)
- advising the Minister about the operation of the IR&D Act, the *Pooled Development Funds Act 1992*, the *Venture Capital Act 2002*, and the Commonwealth's *Income Tax Assessment Act 1997* as they operate in relation to those Acts.

Ministerial Directions issued to the former Innovation and Science Australia Board and the IISA Board also provided additional functions for IISA, which were undertaken in the 2020–21 reporting period.

In December 2020, the Government provided IISA with a Statement of Expectations (SOE) outlining IISA's core objectives and activities. These objectives and activities support the Government to transform Australia into a leading innovation nation that is capable of continued economic prosperity and creation of new job opportunities. IISA is working on three priority tasks set out in the SOE: an impact assessment of Venture Capital Tax Concessions, a report on the investment characteristics of successful innovative businesses, and an evaluation of cross-cutting manufacturing issues following on from road maps developed for the MMS. Further information on these pieces of work can be found in the 'Inform policy through strategic advice' section of this report.

Financial responsibilities of IISA under the IR&D Act

IISA has no financial responsibility for program-related grants, loan or licence agreements entered into after 10 September 2004. This follows amendments to the IR&D Act which came into effect on 11 September 2004, and removed powers of the former Innovation Australia to commit, approve or recommend expenditure of government funds and further safeguard members from any personal liability stemming from Board membership.

Organisation and management

IISA uses a committee structure to support administration and provide expert advice on innovation and venture capital programs. As at 30 June 2021 five committees reported to IISA; each committee has the following specific functions:

- **Research and Development Incentives Committee** — This committee is responsible for advising the Board about the operations of the R&D Tax Concession program for income years commencing before 1 July 2011 and the R&D Tax Incentive program for income years commencing on or after 1 July 2011. The Committee advises on operational policy as well as providing certificates to the Commissioner for Taxation about the eligibility of activities registered for the concession and the incentive. The R&D Incentives Committee met eight times in 2020–21.
- **Cooperative Research Centres Advisory Committee** — This committee has an ongoing role to provide advice and recommendations on applications for funding, the progress and performance of individual Cooperative Research Centres (CRC), and the operation of the CRC Program. The CRC Advisory Committee met five times in 2020–21.
- **Innovation Investment Committee** — This committee is responsible for administering the venture capital programs and providing guidance to DISER throughout the programs' lifecycles. This includes decisions on registration and decisions relating to compliance and interpretation. The IIC Committee met 10 times in 2020–21.
- **Biomedical Translation Fund Committee** — This committee administers the Biomedical Translation Fund (BTF) program and guides DISER throughout the lifecycle of the program. The BTF Committee did not meet in 2020–21.
- **Entrepreneurs' Programme Committee** — This committee is responsible for providing merit assessments and merit ranking recommendations on applications under the Accelerating Commercialisation and the Incubator Support Initiatives. The Entrepreneurs' Programme (EP) Committee also provides merit assessments for the Business Research Innovation Initiative which supports Australian businesses to develop innovative solutions that address persistent government challenges. The EP Committee meet nine times in 2020–21.

Board and committee membership in 2020–21

Membership

Members of the IISA Board are appointed by the portfolio Minister, in writing. The IR&D Act provides for a maximum of 15 members, including the Chair, Deputy Chair and an ex-officio member. Four members of the IISA Board constitute a quorum.

IISA committee members are appointed by the portfolio Minister and operate under delegation from the IISA Board. Committees comprise a chair and up to six members, with three committee members constituting a quorum. These committees also include departmental members.

IISA (Board and committee) members are individuals with an appropriate mix of professional and technical expertise across a broad section of industries, technologies and capital markets, as well as experience in commercialisation of industry innovation, corporate governance and business finance.

The IISA Board and its committee members, other than the departmental members, are remunerated in accordance with determinations set by the Remuneration Tribunal.

Conduct

As statutory office holders, Board and committee members are bound by the Australian Public Service Code of Conduct as per sections 13 and 14 of the *Public Service Act 1999*.

Office of Industry Innovation and Science Australia

Whilst IISA is independent of government by virtue of its founding statute, it is supported by the Office of Industry Innovation and Science Australia (OIISA), which is located within, and supported by DISER. As part of the development of its advice to Government, IISA (through OIISA) undertakes consultation with relevant government portfolios, industry, and the innovation, research and science communities.

OIISA is headed by a CEO who is appointed by the portfolio Minister and engaged through DISER. Dr Kate Cameron is currently acting in the role of CEO. The process to fill this role permanently is underway. OIISA also has a dedicated Board Manager. OIISA staff as at 30 June 2021 included nine full time staff and a part time Soldier On intern.

Partners in delivery

DISER staff in the national, state, territory and regional offices provide project reporting, technical assessment and promotional services for the programs that IISA oversees. DISER officers also advise customers about the range of government industry support programs.

DISER (on behalf of IISA) and the Australian Taxation Office (ATO) jointly administer the Research and Development (R&D) Tax Incentive, the R&D Tax Concession, the Venture Capital Tax Concession Programs and the Pooled Development Fund. DISER manages the registration of research and development activities and conducts compliance reviews related to the eligibility of these activities. The ATO determines if the R&D expenditure claimed is eligible.

The Department of Health has policy responsibility for the Biomedical Translation Fund and DISER is responsible for administering the Fund.

Industry Innovation and Science Australia Membership - Board members as at 30 June 2021

CHAIR
Mr Andrew Stevens
20 Dec 2018 to 19 Dec 2021

DEPUTY CHAIR
Dr Cathy Foley AO
Australia's Chief Scientist
1 Jan 2021 to 31 Dec 2023

Ms Lauren Stafford
Manager,
Open Innovation at
Woodside Energy Limited
7 Oct 2020 to 6 Oct 2023

Mr Patrick Houlihan
Chairman and CEO,
DuluxGroup Limited
& Chairman Murdoch
Children's Research Institute
7 Oct 2020 to 6 Oct 2023

Mr Scott Farrell
Partner,
King & Wood Mallesons
7 Oct 2020 to 6 Oct 2022

Ms Sarah Nolet
CEO,
AgThentic
7 Oct 2020 to 6 Oct 2022

Dr Alexander Grant
CEO,
Myriota Pty Ltd
7 Oct 2020 to 6 Oct 2022

Ms Glenys Beauchamp
Chair, Health Industry
Coordination Group
1 Jan 2021 to 31 Dec 2023

Professor Elanor Huntington
Dean of Engineering and
Computer Science at the
Australian National University
20 Dec 2018 to 19 Dec 2021

Professor Raoul Mortley AO
Principal,
Raoul Mortley Consulting
Chairman Spee3D
20 Dec 2018 to 19 Dec 2021

Mr David Fredericks, PSM
Department of Industry,
Science, Energy and
Resources
3 Feb 2020 Ongoing

Members who retired from the Board in 2020–21

Dr Alan Finkel AO
DEPUTY CHAIR
Australia's Chief Scientist
25 Jan 2019 to 31 Dec 2020
10 March 2016 to 24 Jan 2019

Dr Bronte Adams AM
Managing Director, Dandolo
Partners International
17 Aug 2019 to 16 Aug 2020
24 Oct 2016 to 16 Aug 2019

Professor Bronwyn Harch
Executive Director, Institute
for Future Environments, QUT
17 Aug 2019 to 16 Aug 2020
24 Oct 2016 to 16 Aug 2019

Dr Christopher Roberts AO
Chair,
OncoSil Medical Limited
13 March 2019 to 12 March 2021
10 March 2016 to 24 Jan 2019

Committee Tables

R&D Incentives Committee

R&D INCENTIVES COMMITTEE MEMBERS	TERM OF APPOINTMENT	
Ms Julie Phillips CHAIR	CEO, BioDiem Ltd	16 August 2019 to 31 October 2021 (Chair) 1 November 2018 to 31 October 2021 (member) 14 September 2015 to 13 September 2018 (member)
Mr Lachlan James	Executive Director of Frontier Fund Management & ITP renewables and CEO of Haystack HQ	4 April 2019 to 3 April 2022
Dr Michelle Perugini	Co-Founder and CEO at Presagen and Life Whisperer	11 September 2019 to 10 September 2022
Ms Julia Sloman	Company Secretary, Big 4 Transactions and listed company CEO	1 March 2019 to 28 February 2022
Mr Mark Stevens	Managing Director, ActionTech	11 September 2019 to 10 September 2022
Ms Joanne Mulder	Department of Industry, Science, Energy and Resources	11 September 2019 to 10 September 2022

Cooperative Research Centres (CRC) Advisory Committee

CRC ADVISORY COMMITTEE MEMBERS	TERM OF APPOINTMENT	
Ms Kylie Sproston CHAIR	CEO, Bellberry Ltd	18 June 2018 to 17 June 2021 (Chair) 18 June 2021 to 17 June 2024 (Chair) 20 October 2016 to 17 June 2018 (member)
Dr Damian Barrett	Research Director, Onshore Gas Program Director, Gas Industry Social & Environment Research Alliance (GISERA) CSIRO	9 April 2019 to 8 April 2022
Mr Douglas Stuart	Chief Marketing Officer, Instaclustr	20 June 2020 to19 June 2023 20 June 2017 to19 June 2020
Professor Wendy Erber	Professor of Pathology and Laboratory Medicine, The University of Western Australia	18 November 2020 to 23 August 2023
Professor Bronwyn Harch	Executive Director, Institute for Future Environments, QUT	24 August 2020 to 23 August 2023
Mr David Williamson	Department of Industry, Science, Energy and Resources	11 September 2019 to 10 September 2022

Innovation Investment Committee

INNOVATION INVESTMENT COMMITTEE MEMBERS	TERM OF APPOINTMENT	
Mr Marty Gauvin CHAIR	President and CEO, Virtual Ark Pty Ltd	20 April 2019 to 19 April 2022 20 April 2016 to 19 April 2019
Professor Stephen Barkoczy	Professor, Faculty of Law, Monash University	20 April 2019 to 19 April 2022 20 April 2016 to 19 April 2019
Ms Amanda Heyworth	Non-executive Director	12 March 2019 to 11 March 2022 20 April 2016 to 19 November 2018
Ms Leonie Horrocks	Department of Industry, Science, Energy and Resources	11 September 2019 to 10 September 2022

Biomedical Translation Fund Committee

Biomedical Translation Fund Committee Members	Term of Appointment	
Mr Peter Wills AC CHAIR	Deputy Chair, Research Australia	2 May 2019 to 1 May 2022 2 May 2016 to 1 May 2019
Ms Fiona Pak-Poy	Non-executive Director, Securities Industry Research Centre of Asia	2 May 2019 to 1 May 2022 2 May 2016 to 1 May 2019
Dr Deborah Rathjen	Chief Executive Officer & Managing Director, Bionomics Ltd	2 May 2019 to 28 February 2021 4 April 2016 to 1 May 2019
Dr Leanna Read	Chief Scientist for South Australia	4 April 2019 to 3 April 2022 2 May 2016 to 24 January 2019
Mr Jeremy Samuel	Founder & Managing Director, Anacacia Capital	4 April 2019 to 3 April 2022 2 May 2016 to 24 January 2019
Ms Leonie Horrocks	Department of Industry, Science, Energy and Resources	11 September 2019 to 10 September 2022

Entrepreneurs' Programme Committee

ENTREPRENEURS' PROGRAMME COMMITTEE MEMBERS	TERM OF APPOINTMENT	
Mr Anthony Surtees CHAIR	Co-founder and Director of Marketing and Strategy, Zeetings Pty Ltd	1 November 2018 to 31 October 2021 (Chair) 19 July 2017 to 31 October 2018 (member) 1 July 2015 to 30 June 2017 (member)
Ms Jan Bingley	Founder & Principal, UCX Consulting Pty Ltd	28 November 2018 to 27 November 2021
Ms Bessi Graham	Co-Founder, Benefit Capital	29 January 2019 to 28 January 2022
Ms Rachael Neumann	Netherless Tach Pty Ltd	28 November 2018 to 27 November 2021
Dr Carrie Hillyard AM	Co-Founder CM Capital Investments Pty Ltd	1 July 2018 to 30 June 2021 1 July 2015 to 30 June 2018
Dr James Williams	Investment Director Yuuwa Capital	19 July 2020 to 30 June 2023 18 July 2017 to 17 July 2020
Mr Steve Telburn	Managing Director, Secret Sauce IP Ventures	1 July 2018 – 30 June 2021 1 July 2015 to 30 June 2018

Meetings of Innovation and Science Australia in 2020–21

During the 2020–21 financial year four formal IISA Board meetings were scheduled, however due to restrictions caused by COVID-19, only three meetings were held. Travel restrictions varied in each state, meaning that members attended either in person (when possible) or virtually (if restricted), depending on the nature of restrictions at the time of each meeting.

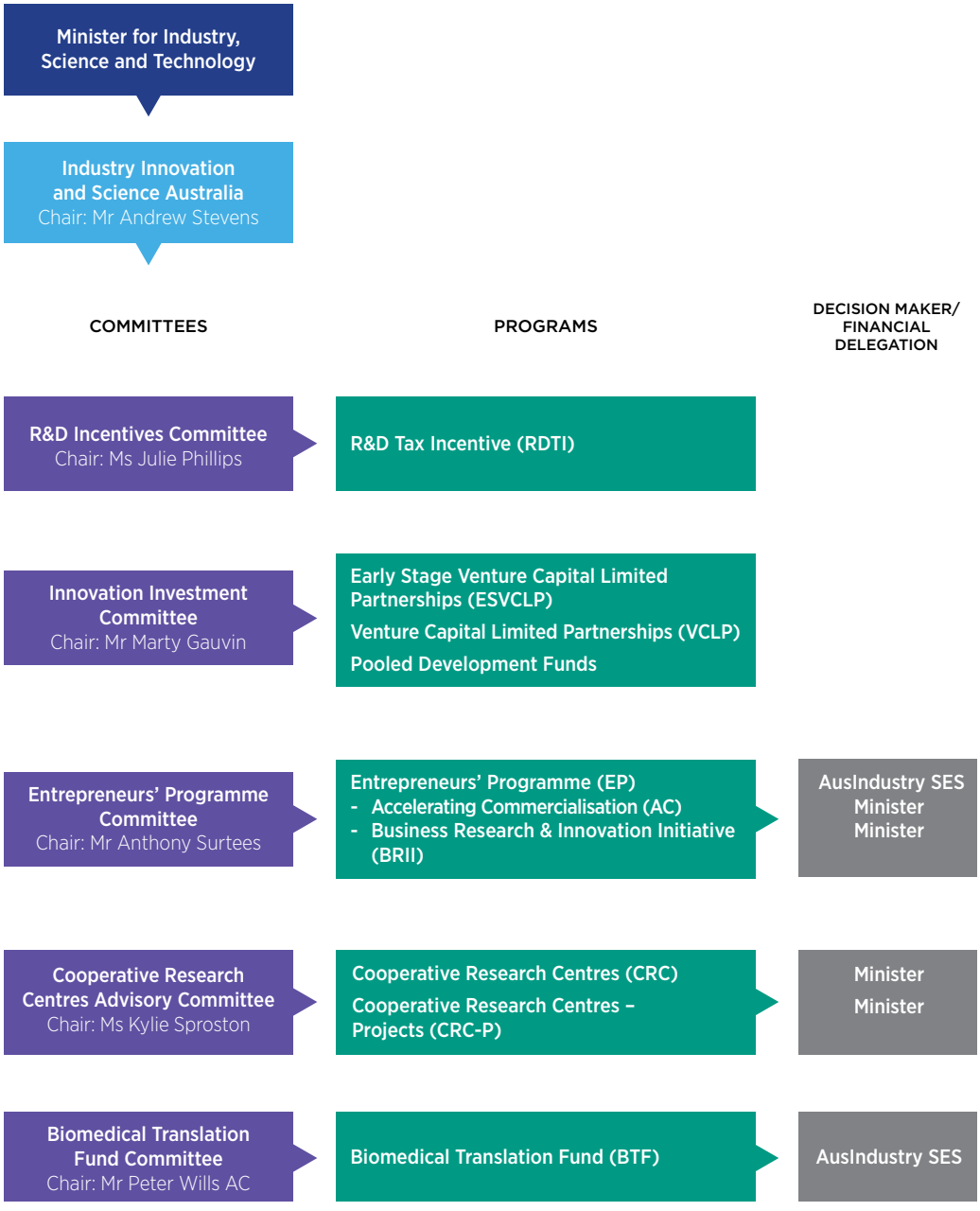
23 October 2020 Canberra

26 November 2020 Sydney

4 March 2021 Sydney

IISA also held a number of out of session meetings via teleconference to consider a number of matters.

Structure of Industry Innovation and Science Australia as at 30 June 2021



Articulates the Program oversight responsibilities of IISA through its committees and the ultimate decision makers and financial delegation for relevant grant programs

Legal matters and litigation

Research & Development Tax Incentive

In 2020–21, nine new applications were made seeking review of IISA's internal review RDTI decisions in the Administrative Appeals Tribunal (AAT), and one new application seeking a review of a Full Court of the Federal Court of Australia (FCA) decision to the High Court of Australia (HCA). Seventeen matters were resolved (four decided at final hearing, eight withdrawn by applicants and five resolved by consent orders).

IISA was the respondent in three matters that went to final hearing in the AAT: Absolute Vision Technologies v IISA; Lakes Oil v IISA; and Moreton Resources v IISA. All three matters are awaiting final AAT decision.

The AAT made two decisions on RDTI matters involving IISA decisions during the 2020–21 period. In the matter of *Royal Wins v IISA*, the AAT affirmed IISA's decision. In the matter of *PKWK v IISA*, the AAT overturned IISA's decision and found the claimed activities to be eligible R&D activities.

IISA was also the respondent in three matters in the FCA involving an appeal of a decision of the AAT. In two of the matters (*Coal of Queensland v IISA* and *H2O Exchange v IISA),* the FCA affirmed the decision of the AAT (in favour of IISA). In the third FCA matter (*Ultimate Vision v IISA*), the FCA is yet to hand down its decision.

Following the decision of the FCA in Coal of Queensland, the applicant applied for special leave to appeal the decision of the FCA to the HCA. This is the first time there has been an application for special leave to the HCA concerning an IISA RDTI decision. The HCA is yet to elect whether to decide the application on the papers or via a hearing.

There was one further application to the AAT in relation to a matter in which there were existing AAT proceedings for the same activities in a prior income year. That further application was consolidated with the earlier related AAT proceedings and has not been included as a separate application for the purposes of this report.

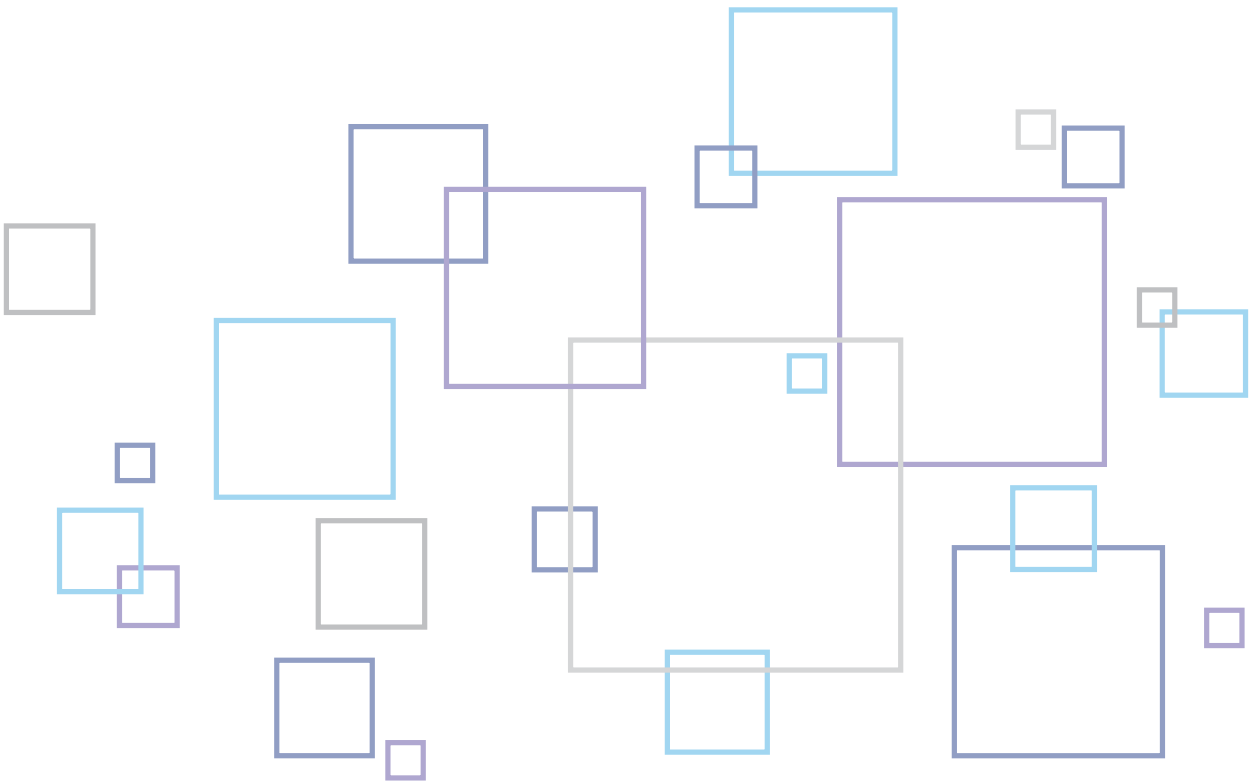
Status of the AAT and court proceedings for RDTI matters for the 2020–21 year.

	HIGH COURT OF AUSTRALIA	FEDERAL COURT OF AUSTRALIA	ADMINISTRATIVE APPEALS TRIBUNAL
Current matters as at 30 June 2021 (IISA as respondent)	1	1	20
New matters during 2020–21 (IISA as respondent)	1		9

RESOLUTION OF MATTERS DURING 2020–21	HIGH COURT OF AUSTRALIA	FEDERAL COURT OF AUSTRALIA	ADMINISTRATIVE APPEALS TRIBUNAL
Decision		2	2
Withdrawal			8
Agreement (Consent Orders)			5

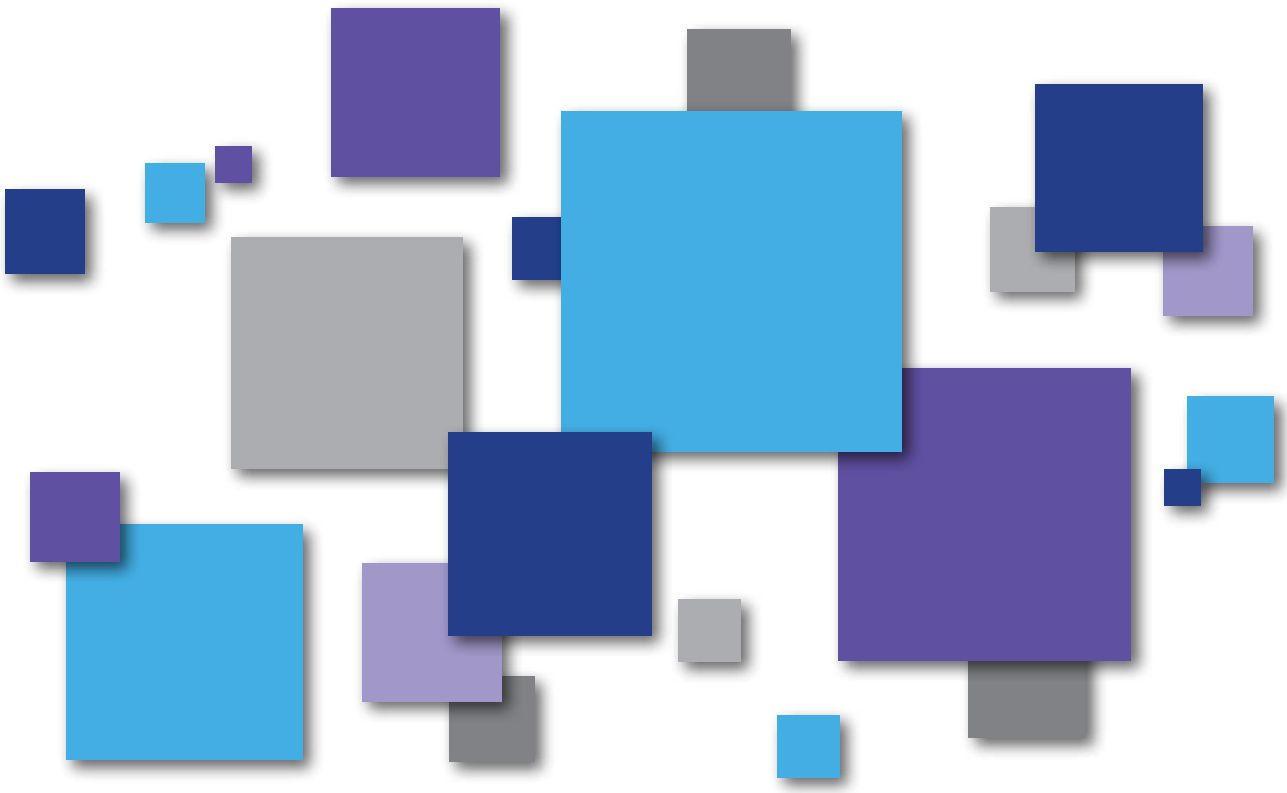
Venture Capital Program

In 2020–21, MEC Resources Ltd (MEC) made an application to the AAT for review of IISA's internal review decision. The internal review affirmed the initial decision to revoke MEC's registration declaration under paragraph 47(1)(a) of the *Pooled Development Funds Act 1992.* The matter will likely be heard between November 2021 and March 2022.



ACRONYM LIST

INDEX



Acronym and abbreviations list

A

AAT	Administrative Appeals Tribunal
ABS	Australian Bureau of Statistics
AC	Accelerating Commercialisation
AFOF	Australian Venture Capital Fund of Funds
AM	Member of the Order
AO	Officer of the Order
APS	Australian Public Service
ATO	Australian Taxation Office

B

BATDS	Biosecurity Automated Threat Detection System
Board	Industry Innovation and Science Australia Board
BRII	Business Research Innovation Initiative
BTF	Biomedical Translation Fund

C

CEO	Chief Executive Officer
CF	Commercialisation Facilitators
CRC	Cooperative Research Centres
CRC-P	Cooperative Research Centres-Projects
CSIRO	Commonwealth Scientific and Industrial Research Organisation

D

DAWE	Department of Agriculture, Water and the Environment
DISER	Department of Industry, Science, Energy and Resources

E

EP	Entrepreneurs' Programme
EPC	Entrepreneurs' Programme Committee
ESVCLP	Early Stage Venture Capital Limited Partnerships
EVCI	Eligible Venture Capital Investor

F

FAA	Fellow of the Australian Academy of Science
FCA	Federal Court of Australia
FTE	Full Time Equivalent
FTSE	Fellow of the Australian Academy of Technology and Engineering

H

HCA	High Court of Australia
HD-MAP	High Density Microarray Patch
HDPE	High Density Polyethylene

I

ICT	Information and Communication Technology
ICC	Innovation Investment Committee
IISA	Industry Innovation and Science Australia
IR&D	Industry Research and Development
IR&D Act	Industry Research and Development Act 1986
ISA	Innovation and Science Australia
IS	Incubator Support
ISI	Incubator Support Initiative
ISR	Innovation, Science and Research

L

Ltd.	Limited

M

MEC	MEC Resources Ltd.
MMS	Modern Manufacturing Strategy
MP	Member of Parliament

N

NMP	National Manufacturing Priority

O

OIISA	Office of Industry Innovation and Science Australia

P

PSM	The Public Service Medal

Q

QUT	Queensland University of Technology

R

R&D	Research and Development
RDTI	Research and Development Tax Incentive
Regtech	Regulatory Technology

S

SAP	Substituted Accounting Period
SME	Small and Medium Enterprise
SOE	Statement of Expectations
SOI	Statement of Intent
STEM	Science, Technology, Engineering and Mathematics

T

The Board	Industry Innovation and Science Australia Board

U

UNSW	University of New South Wales

V

VCLP	Venture Capital Limited Partnerships

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