



# ANNUAL REPORT

2022

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Digital Finance Cooperative  
Research Centre (DFCRC)

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# Chairman's message

It gives me great pleasure to present this first annual report of the Digital Finance Cooperative Research Centre (DFCRC).

Today, we are at the starting point of a fundamental transformation of the finance industry. This transformation is not about the digitisation of the interactions needed to exchange financial products. Rather, the revolution we contemplate is the digitisation of the financial and physical products themselves – into individual digital assets, certificates and tokens, which can be traded and exchanged directly and instantly between any individual or organisation. This is Digital Finance.

To help capture the benefits of this revolution for Australia, we have created the DFCRC, a collaboration between industry, research, and regulatory stakeholders to address and commercially exploit the opportunities from digitisation.

When the DFCRC was officially launched in August 2022, the Minister for Financial Services Hon. Stephen Jones MP said the DFCRC's work could quite literally drive the way commerce is done over the rest of this century.

The minister was spot on and his comments highlight the government's forward-thinking, its support for innovation and collaboration and the very consequential impacts this might have for Australia over the coming decades.

By way of background, the DFCRC is part of Australia's very successful Cooperative Research Centres (CRC) program that the federal government established in 1990 and which funds industry-led collaborations between industry, researchers and end users.

CRCs are a proven way to link researchers with industry and provide research and development that addresses real-world problems.

For the DFCRC, the past 18 months have been a whirlwind. In this time, we have gone from the germ of a great idea to pitching the government a sound collaborative business case and, in return, securing \$60 million in public funding. Alongside this process, we have locked in partnerships with 25 industry organisations and \$121 million in private funding. These are terrific outcomes, and I salute our staff and collaborators for their speed and commitment.



*Neville Stevens AO has broad experience at a senior level both inside and outside of government. His 30-year career in the Australian Public Service included senior positions in the Department of Prime Minister and Cabinet, the Department of Industry and the Department of Communications, Information Technology and the Arts. Neville graduated from Adelaide University with a Bachelor of Economics (Hons). He was made an Officer in the Order of Australia in 2002.*

I would also particularly recognise the leadership of the DFCRC's CEO Dr Andreas Furche, who is, quite literally, a pioneer in the area of Digital Finance - he wrote his PhD on the topic in 2000. The DFCRC's creation and early momentum is due in no small part to his intellectual vision, relentless drive and curiosity.

I also acknowledge the stellar group of partners that have made the DFCRC possible. Leading universities, relevant and innovative industry partners and major regulators have come together to address key issues and pursue commercial opportunities.

The Reserve Bank of Australia (RBA) was a supporter from the outset and is now the prime collaborator on our first major project, our joint quest to explore developing a Central Bank Digital Currency (CBDC). The CBDC project is discussed in more detail later in this Annual Report.

The DFCRC's goal is not to drive incremental benefits in a well-established and understood field. Our goal is to take advantage of and accelerate Australia's early leadership in Digital Finance, which is the single most economically significant emerging disruption.

I am passionate about DFCRC's role in helping Australia shape this disruption and chart its own course rather than following what happens abroad. We are a smart country of people with a record of leadership in their academic fields and a record of commercialisation and mercantile spirit.



**Neville Steven AO**  
*Chairman*



# CEO's message

This is our inaugural annual report for the DFCRC – and really, it covers only part of the year. After all, we only commenced operations in November 2021.

Yet, as it is with CRCs, getting here has been quite a journey already. The running and completion of our bid process during COVID lockdowns was challenging to say the least. Bringing together partners for the CRC over that period was possible only with the help of a team and supporters with a long track record in industry and research.

Digital Finance itself, as we see it today, is similarly a new area with a very long gestation period. The digital representation of financial assets (as balances) goes back to the advent of computer technology, and digitised trading transformed the world's markets in the 1990s.

The ability to digitise individual assets as objects, not balances, goes back to inventions in cryptography in the 1970s and 1980s and the emergence of the Digital Bearer Instruments concept in the 1990s. The development and increased adoption of blockchain in the 2010s ultimately provided the momentum for the next transformation of the financial markets that we are on the cusp of today.

Digital Finance is, therefore, an evolutionary step, not a sudden shift. It builds fundamentally on what has been developed over time – in toolsets as well as the commercial environment.

Digital Finance is also an inherently multidisciplinary field. The necessary complement between technology and finance as a basis is clear. But we now see that from an R&D perspective, we need to add law as an additional discipline because rules and regulations need to change fundamentally with the Digital Finance Markets concept. And that will not be the end of it.

In future, Digital Finance research will need to be complemented with domain expertise related to particular asset classes. For example, we already see that to develop effective representations and market mechanisms for natural assets, we need a direct combination of expertise between Ecological Management and Digital Finance.



*Dr Andreas Furche is a fintech researcher and entrepreneur with a long-term passion for the tokenisation of financial assets. He has been involved in the development of research-based financial technology start-up companies for over 25 years in Australia, the US and Europe. His journey to digitisation started with his involvement in digitised cash in the mid-1990s, as regional CEO (A/P) of David Chaum's DigiCash, which created the first-ever cryptocurrencies. After becoming hooked, Andreas completed a PhD on the subject developing a model for the tokenisation of financial assets and their digital circulation (Macquarie University, 2000).*

This tells us that Digital Finance will be a very research-heavy area for some time, and much transformation is yet to come. Our approach as DFCRC is to develop and run projects that pioneer or test groundbreaking ideas. Our projects will be risky and difficult. Informative even if they fail, but transformational if they succeed. And, by their very nature of aiming to transform an ecosystem, they will require collaboration between stakeholders and sometimes unlikely partners.

It is in the nature of a year 0 report that we talk more about what we will be doing than what we have done. But as year 0, or part of year 1 goes, the DFCRC has established considerable momentum. Beyond establishing operations and our first intake of PhD students, we started with very strong partner and industry engagement. We used this to select our initial key strategic topics – areas where we see the highest impact potential for Digital Finance in Australia.

By our next annual report, we aim to introduce Digital Finance project initiatives in Mining/Minerals, Impact Investment and Natural Asset Digitisation (new markets for ESG investments), and the digitisation of fiat money – and provide the first results.

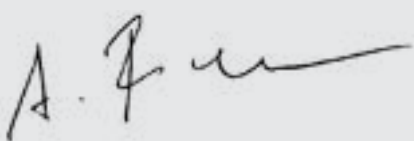
At the time of writing, we can afford some confidence in our progress. The momentum of our establishment has been substantially boosted by the initiation of our first large project with the RBA on the potential economic and systemic impact of CBDC.

This project is much more than 'just' an initiative with the RBA. The industry consultation and ideas development involves nearly the entire partner base of our CRC and a much wider industry group in Australia and beyond. The topic itself could not be more central to us: What sort of digital asset marketplaces could or would arise if this infrastructure were there, and what should it look like? It is a project that can genuinely help lay the groundwork for the next-generation financial system in Australia and beyond.

I would like to conclude my note by returning to the path of the establishment of our CRC and sincerely thanking those people and organisations who have contributed so much for us to be here in the first place. The combination of our bid team and the strategic advisory group developed content and direction with much dedication and donated time from individuals. Our partners – university and industry – continue to be greatly supportive and engaged. Our inaugural board and chair have gone above and beyond in personal contributions and notably started work well before the start of our operations to support the organisational establishment. A big thank you to the CRC team at The Department of Industry, Science and Resources (DISR). I also thank and acknowledge the significant support we receive from the Australian government.

Finally, I would like to thank Rozetta Institute. Rozetta provided the funding for the bid, notably without the expectation of financial returns and, indeed, without the request to repay what was spent. This support allowed our CRC to be established as an independent initiative, with a level playing field between all our partners. We see that as quite an asset in our operations.

We have had a great start and we look forward to a great run and, ultimately, the fundamental impact of this CRC in our field and beyond.



**Dr Andreas Furche**  
CEO

# About DFCRC

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The DFCRC is a collaboration between fintech, industry, research, and regulatory stakeholders to address and commercially exploit the opportunities arising from the transformation of financial markets through the digitisation and direct trading of assets between entities. The CRC will enable partners to become pivotal global players through R&D, piloting and commercialising solutions focussed on real-world problems while developing the industry's skills and leadership capability.

## What is Digital Finance?

Digital Finance refers to the 'digitisation' of assets, being a representation of assets themselves, or the ownership title to assets, as cryptographically secured 'tokens'. These virtual assets can be stored on registry records (for example, using blockchains) or traded over open networks with instant transfer of ownership. This seemingly subtle change in how assets are represented and traded will lead to a fundamental reorganisation of the financial marketplace, with consequential massive growth in the sector.

The representation of individual physical or financial products as digitised assets allows ubiquitous and instantaneous exchange and trading on a scale that will dwarf the current, already huge financial marketplace.

While Digital Finance is now in a formative stage from an academic and commercial perspective, its future impact on economies will be fundamental. The World Economic Forum, OECD and other experts all predict that more than 10% of global assets will be represented and stored in digitised form within seven years. This amounts to tens of trillions of dollars and a further multiple of that in transactional value. Digital Finance is the single biggest economic opportunity on the horizon for the next decade and possibly beyond.

We can expect the full transition to the Digital Finance economy to take place over the next 20 to 30 years. Moreover, the value of exchange and trading of these assets will exceed the asset value itself by order of magnitude.

## The CRC program

The Australian Government's CRC Program supports industry-led collaborations between industry, researchers and the community. It's a proven way to link researchers with industry. The focus is on research and development that will have commercial uses. The program aims to:

- Improve the competitiveness, productivity and sustainability of Australian industries, especially where Australia is competitive and in government priority areas;
- Use high-quality research to solve industry-identified problems; and
- Encourage and help SMEs to take part in collaborative research.

At the heart of DFCRC's mission is a research and development program uniting leading finance, law, and technology researchers with industry partners in Finance, Mining and Energy markets, SME innovators, and regulators.

# Research and Education

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The highlights of the DFCRC's Research and Education work include an active industrial PhD program in collaboration with industry partners, research that supports and underpins collaborative commercial projects, and developing the Digital Finance MBA with four of DFCRC's partner universities (Curtin, RMIT, UTS and UWA). Chief Scientist Dr Tālis Putniņš leads the DFCRC Research and Education work.

Overall, The Research and Education program aims to build the next generation of leaders and experts for the new economy driven by tokenised assets. It is about creating a sustainable bridge between industry and academia by ensuring these leaders themselves experience and learn the skills needed for successfully driving industry-academia cooperation.

## Milestones this year in the Research and Education stream

- **Launching the industrial PhD program:** The DFCRC has already secured the first intake of 20 PhD researchers<sup>1</sup> who will be embedded with industry partners and working on research to solve commercial problems and opportunities these partners have identified. Under this program, the centre provides doctorate students with a stipend of \$70,000 p.a. to deliver commercially adaptable research. This research is aligned with our industry partners and bolsters the centre's three core projects:
  - Piloting a central bank digital currency in collaboration with the RBA
  - The tokenisation of inground minerals
  - New markets for ESG investments.

The DFCRC aims to train and graduate 120 PhD candidates over the next ten years.

- **Developing Specialist Course Work:** Given Digital Finance is an emerging multidisciplinary field encompassing finance, computer science, and law, the DFCRC has developed Specialist Course Work covering each discipline area, with the courses led by experts from each of these fields (DFCRC's Discipline Leads). PhD researchers are now undertaking this specialist coursework so that they all have a strong multidisciplinary foundation irrespective of which discipline a researcher specialises in. The specialist courses on financial markets, law and regulation, and technology will also form part of the Digital Finance MBA.
- **Growing the pipeline of research:** Research in the DFCRC underpins its economic impact objectives and brings Australia to a position of leadership in Digital Finance. It also supports commercial projects and industry partners. The research is conducted by PhD researchers, associated academics, and DFCRC staff. This year the DFCRC started many research projects, rapidly

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1. 11 students as at 30 June 2022



growing the research pipeline. The first research outputs are already being published as working papers (more to come) and have been embraced by the industry. For instance, a research paper by one of the DFCRC's PhD researchers and academic supervisors on *Insider Trading in Cryptocurrency Markets* generated a lot of attention from global regulators following reporting from international finance media publisher Bloomberg.

- As part of its mission, the DFCRC is funded to provide seed grants for research projects to academics from its partner universities. A rigorous Expression of Interest process has been developed to assess applicants. The process was launched towards the end of 2022 and will continue to engage new research projects over the coming years.

## Digital Finance MBA

- A customised MBA is another component of the DFCRC's education program. The MBA consists of three components:
  - Standard MBA foundation coursework
  - Speciality coursework for Digital Finance (Finance, Technology, and Legal)
  - Participation in a DFCRC industry project.

The MBA is targeted at senior staff within industry partners to drive upskilling in the Digital Finance topic for strategic purposes.

- The DFCRC is working with four partner universities to roll out the Digital Finance MBA in the second half of calendar 2023.



*Dr Tālis Putniņš is a Professor in the Finance Discipline group at the University of Technology, Sydney, and is a member of the Quantitative Finance Research Centre at UTS. Tālis' main research interests are financial markets, market microstructure, asset pricing, market manipulation, and financial misconduct. Tālis has provided consulting and policy expertise for government agencies, stock exchanges, and financial institutions.*



# Commercialisation

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## Commercialisation - Digital Finance Ventures

Commercialisation is fundamental to the DFCRC's operation. To support this, the DFCRC established a dedicated commercialisation entity to support its commercialisation activity, Digital Finance Ventures Pty Ltd (DFV). DFV has been set up as a for-profit 100% DFCRC subsidiary company.

The DFV board is chaired by Martin Duursma and boasts substantial commercialisation and investment experience. The board members are Jan Bingley, Michael Karbouris, Wendy Mackay, Raj Nanda and Lisa Wade.

The DFCRC's Chief Commercial Officer, Elizabeth Reed, manages DFV and the DFCRC's commercialisation program.

### Strategic Consultation

#### **ASSET CLASS SUMMIT**

As part of its strategic establishment phase the DFCRC hosted an Asset Class Summit in consultation with stakeholders across a range of industries to identify asset classes where the DFCRC can realise the highest economic impact, and hence prioritise its initial research and development initiatives.

The summit had strong C-level representation and engagement, and resulted in the emergence of ESG and Mining/Minerals as priority asset classes.

#### ***Mining and Minerals***

The Mining and Minerals working group expanded on the bid hypothesis of the tokenisation of inground minerals, investigating the digitisation of related market opportunities, which may create innovation in the operation of mining finance.

#### **ESG**

The ESG opportunity seeks to address liquidity problems inherent in the current ESG investment marketplace, responding to the undersupply of credible investment opportunities and strong demand with a project-level digitisation concept, allowing investors to take direct exposure to investment projects which contribute to Sustainability and Impact KPIs.

Both projects are in formation with early-stage work centring on the ideation and proof of concept.

### **DEFI SUMMIT (DECENTRALISED FINANCE)**

As part of the DFCRC remit of knowledge transfer, the DFCRC held a one-day DeFi Summit with industry SMEs and partners, to help partners and the DFCRC better understand how DeFi operates, and explore opportunities for potential impact from new DeFi technologies and techniques in our partner businesses.

Hosted by our Chief Scientist, Dr Tālis Putniņš, the DeFi summit identified and discussed an emerging toolset around DeFi, which has application in areas beyond financial services.

The DeFi summit benefited from strong C-Suite engagement and international partner content collaborators, and spurred interest from the DFCRC partner network in ongoing and evolving discussion.

### **Industry engagement**

DFCRC has 18 industry partners whom the DFCRC have been working with to scope industry-based research and collaborative commercial opportunities.



*Elizabeth Reed is a skilled business executive with close to 20 years' experience across a broad range of industries, including banking, M&A, financial services, legal, insolvency, real estate and manufacturing.*

*Elizabeth spent ten years at Macquarie Bank leading advisory and industry teams, has worked in executive roles across major banks, and has recently established start-up businesses in Australia and the United Kingdom.*

# Technology



*Dr Mark Staples is DFCRC's Chief Technology Officer, who leads research in blockchain, software engineering, software architecture, and regtech. He is also a Senior Principal Researcher in CSIRO's Data61.*

The DFCRC Chief Technology Officer (CTO) Dr Mark Staples leads the DFCRC technology team and works with DFCRC partners to understand and implement new business concepts in Digital Finance.

The CTO coordinates technology research in computer science and software engineering across the DFCRC. Research students are key for both; the CTO helps identify and match technology research students with project opportunities across DFCRC's industry partners and academic experts across DFCRC's University and research partners.

The technology team is crucial to the DFCRC's broader strategy. To make good business design choices, we need to understand how new technologies in the decentralised finance ecosystem enable new business concepts in Digital Finance. The technology team then works alongside commercialisation and program management leaders to shape, develop and deliver early-stage solutions for some of these concepts.

The DFCRC technology team are playing a lead role in the Central Bank Digital Currency project, launched this calendar year in collaboration with the RBA. The DFCRC is leading developers from both organisations to deliver the platform for the CBDC project. This will help use-case proponents demonstrate how CBDC can add value to the Australian economy.

The technology team works closely with DFCRC discipline leads in law and finance, creating a new integrated discipline of Digital Finance. A key pillar for this will be a new Digital Finance technology course. The first version of this course was developed and delivered this year to the DFCRC's initial cohort of PhD students by CSIRO's Dr Dilum Bandara.

The work of the technology team is challenging: everything is new – new organisation, new integrated discipline of Digital Finance, new technology team; new collaborative research and business projects; and new CBDC platform concepts. Over the coming 12 months, the technology team aims to do three things:

1. Finish and build on the outcomes of the CBDC project.
2. Start new technology platforms for collaborative project concepts with DFCRC partners.
3. Get more reach for the Digital Finance technology course among future DFCRC PhD and Digital Finance MBA students.

# Operations

During this first year, the Operations Team has focused on transitioning from the bid phase to establishing the governance and day-to-day operational and administrative functions of the DFCRC. The DFCRC's Chief Operating Officer is Steph Manefield. Her work includes:

- **Strategy:** Managing the development and implementation of the integrated strategy and policies to enable the DFCRC's research strategy, program and activities;
- **Operational planning:** Overseeing the alignment and implementation of business planning, operating activities, and strategic projects across the DFCRC's research programs;
- **Research and Education program delivery:** Providing operational support to research and education programs, including recruitment, selection and onboarding of PhD researchers and establishing a program for student engagement and wellbeing initiatives;
- **Financial stewardship:** Providing strategic financial management and oversight across all DFCRC business functions, including the efficient use of resources;
- **Communications:** Coordinating outreach and engagement activities with key stakeholders, including the CRC Program, industry and university partners;
- **Governance:** Monitoring the overarching governance and control framework to ensure DFCRC meets its obligations under the Commonwealth Grant and Partner Agreements and our legal, regulatory and compliance obligations; and
- **Risk:** Managing risk and workplace health and safety.



*Steph Manefield is DFCRC's Chief Operations Officer and was most recently General Manager of the RoZetta Institute. She has also worked at the University of New South Wales's Australian Human Rights Institute and spent ten years at the Macquarie Group.*

### Against this framework, some operational highlights include:

- **Centre launch:** following so many delays due to COVID, the DFCRC was able to host our formal launch event in August 2022. The Minister for Financial Services, Hon Stephen Jones MP, officially opened the launch hosted by DFCRC partner Australian Securities Exchange, with the keynote address delivered by Mr Paul O'Sullivan, Chair of ANZ, a partner of the DFCRC.
- **Communications:** the DFCRC also secured the services of communications and public affairs professionals whose job is to use strategic communications to engage with stakeholders and help the centre achieve its mission (for example, engaging with potential PhD researchers or industry partners). We have revamped our website and will continue evolving our communications channels.
- **Events:** the centre has also undertaken a number of industry outreach events - running two Asset Class Seminars - as well as PhD researcher engagement. In the coming year, the DFCRC has a large program of events and outreach planned to engage current and prospective students and university and industry partners.
- **Premises:** the DFCRC locked in its Sydney premises at the Gateway building in Sydney's CBD co-tenanting with university partner - University of Wollongong's Sydney Business School. We are finalising plans for a modest fit-out which we aim to complete in early 2023. We will also establish hubs in Melbourne and Perth in the coming year.
- **Governance:** the DFCRC has established the governance framework formalising the board and committee structures to oversee the centre's research, development and education programs and commercialisation framework.

# Projects and Research

Each of our four research pillars represents inter-disciplinary collaborations between technology, finance, and law, driving project-based, outcome-oriented R&D, supplemented by an education and training program to deliver the next generation of experts and leaders equipped to take full advantage of this economic transformation.

The infrastructure that is needed to digitise each of those asset classes can be broken into four components (described more precisely in the bid document):

- 01. Dynamic Registers for Instant Exchange program:** this addresses the transformation the financial system requires through the digitisation of registries. When truly digital assets are created, issued, traded and settled in real-time, the registry becomes the centrepiece of all transactions.
- 02. Advanced Securitisation program:** this addresses the digitisation of assets. Many aspects of how different asset classes are digitally represented are yet to be solved. A key infrastructure piece in this program relates to Central Bank Digital Cash, a key requirement for most Digital Finance transactions.
- 03. Distributed Trading program:** this looks at the real-time exchange of one set of digital assets for another. The goal here is the so-called risk-free exchange of assets, commoditising exchange interactions.
- 04. RegTech with Algorithmic Real-Time Enforcement program:** is about maintaining confidence and trust in these new markets via new approaches to regulation, supervision, and operational certainty. DFCRC's program develops solutions to governance and compliance in the 'instant' asset transfer environment.

DFCRC's bid document to the government describes these four areas as Research Programs. In practice, however, they could be viewed as the "infrastructure components" of digital finance, or the "technologies" of Digital Finance taking a broad view of what technology means so that it includes financial/legal/computer technologies. Another way of looking at it - they make up DFCRC's "tech stack" for digitising assets.

# Case study: Central Bank Digital Currency Pilot Project

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In August 2022, DFCRC and the RBA announced collaboration on a research project to explore use cases for a CBDC in Australia. The project, led by project director Dilip Rao, is also an opportunity to further understand the technological, legal and regulatory considerations associated with a CBDC.

To support this project, the DFCRC and the Bank released a White Paper, 'Australian CBDC Pilot for Digital Finance Innovation', that explains the project's objectives and approach, including the design of the pilot industry participants will use to explore use cases for a CBDC. As part of the process, the finance industry has been invited to make submissions on CBDC use cases that benefit the Australian economy and financial system. Participants can also express interest in operating their use case in a pilot project to test the value proposition.

The pilot CBDC will be called the eAUD. The DFCRC will develop and install the eAUD platform as a private, permissioned Ethereum (Quorum) implementation. The eAUD ledger will operate as a centralised platform under the RBA's management and oversight.

## Research Questions

An initial set of research questions the project will address are:

- What, if any, are the emerging business models and use cases a CBDC would support that are not effectively supported by existing payments and settlement infrastructures in Australia?
- What might be the potential economic benefits of issuing a CBDC in Australia?
- What operational, technology, policy and regulatory issues might need to be addressed in the operation of a CBDC in Australia?

## Outputs and Outcomes

The project's objectives are to identify and understand innovative business models, use cases, benefits, risks, and operational models for a CBDC in Australia. It is expected industry will benefit from testing business models and use cases for CBDC, potentially involving their clients. A report on the findings, including an assessment of the various use cases developed, will be published at the project's conclusion. These findings will contribute to ongoing research into a CBDC in Australia.





## CBDC pilot project timeline

- Publish White Paper to describe the project and invite submissions - September 2022.
- Deadline for expressions of interest to pilot the transactional trial - 31 October 2022.
- Announce selected use cases for the CBDC transactional trial - December 2022.
- Deadline for research-only submissions - March 2023.
- Conduct CBDC transactional trial and operate selected use cases - first half of 2023.
- Publish report with findings - mid-2023.

## Industry participation

As of 31 October 2022, there have been 142 use-case submissions from 78 Entities.



*Dilip Rao is a veteran in banking tech, payments and cryptocurrencies. He founded Australia's first P2P payments start-up and has held senior roles in technology and business development across APAC. Dilip is an evangelist for fintech innovation and loves challenging the status quo.*

# PhD Research Projects

This table shows the nine PhD student projects that have been defined as at 30 June 2022. While DFCRC had 11 students at that date, and another nine since, those students are still working on their research projects and have not landed on a final topic.

PhD Student	Research Program	Project Title	Research Institution	Student's Country of Origin
Anurag Soin	RP1	Blockchain Risk Management for Institutional Business	University of Technology Sydney	Australia
Samukeliso Maburani	RP1	Tokenisation of real assets – a technical approach to privacy, security and compliance	Royal Melbourne Institute of Technology	Zimbabwe
Angela Babic	RP2	Digital tokenisation of in-ground minerals: An assessment into the legislative framework of legal title to resources in-ground and native title applicable to the mining sector in Western Australia, and what changes, if any, would be needed to support its implementation	Curtin University	Australia
Dustin Weiss	RP2	CBDC Use Cases in Clearing and Settlement Systems and its Implications for Financial Markets	University of Wollongong	Germany
Robbie Gaudiosi	RP2	Trading of Digital Assets and the New Market Architectures Presented via Blockchain Technology	University of Wollongong	Australia
Chanuka Wijayakoon	RP3	A Regulatory Template Engine for Real-time Constraint Enforcement in Blockchains	Royal Melbourne Institute of Technology	Sri Lanka
Jeccer Cusi	RP4	Framework for Transforming a Centralised Business Process to Decentralised Process Using DAOs'	Curtin University	Australia
Kaveesha Dilshani	RP4	Anomaly Detection of Stock Market using Deep Learning Models	University of Technology Sydney	Sri Lanka
Luke Johnson	RP4	Decentralised Market Quality	University of Technology Sydney	Australia

# DFCRC Board



**Neville Stevens AO**



**Rachel Grimes AM**



**Professor Julie Cogin**



**Jon Deane**



**Clare Gill**



**Professor Dan Johnson**



**Greg Medcraft**



## 01. Neville Stevens, AO

Neville Stevens AO has extensive experience in the government and private sectors in the development and implementation of policy for R&D, with a focus on IT and communications.

Neville drove the industry policy and innovation agenda in roles including Secretary of the Industry Department and Secretary of the Department of Communications, Information Technology and the Arts. He was also a key advisor in many other areas of government including industry policy, telecommunications reform, broadcasting and media policy, research and development issues and the development of the Australian information technology industry.

Since leaving the public service in 2001, Neville has continued his involvement with innovation and industry research collaboration at both a policy and operational level. As Chairman of National ICT Australia Ltd (NICTA), Neville oversaw the growth of Australia's largest ICT research organisation, with an annual budget exceeding \$100 million. During his tenure as Chair of AC3 Limited – a company founded by universities and the NSW Government to deliver dedicated IT services – the organisation moved from loss to profitability. As Chair of the CRC Committee, Neville managed the Federal Government's \$150 million annual investment in CRCs from selection to monitoring and review of centres.

Today, Neville remains a key advisor to federal, state and territory governments, undertaking reviews in many areas including renewable energy, Indigenous broadcasting, tertiary education and research facilities. Neville has chaired numerous advisory bodies, particularly within the innovation and research collaboration space.

Currently, Neville serves as:

- Chair of the NSW Government's Innovation and Productivity Council, with a remit to advise on ways of boosting productivity, jobs growth and industry research collaboration;
- Chair of the Australian Press Council a self-regulatory body promoting high standards of media practice and responds to community complaints about the media;
- Chair of the ACT Government Clubs Diversification Fund Board.

## 02. Rachel Grimes, AM

Rachel Grimes AM is the Chief Financial Officer for Challenger Group until 1 December 2022 after which time she will focus on Non-Executive Director roles. A Chartered Accountant with over thirty years' experience in the financial services sector, Rachel has worked at Westpac, BT (formerly BT Financial Group) and PwC Australia.

Rachel graduated from the University of Technology, Sydney (Bachelor of Business in Accounting).

Rachel joined the Institute of Chartered Accountants Australia in 1994. She advanced to a Fellowship in 2002 and became a Director in 2006. In 2011, Rachel was appointed President of the Institute of Chartered Accountants Australia and was the President of the International Federation of Accountants (IFAC) – the global organisation for the accountancy profession from 2016 to 2018.

Rachel is a Director on the Accounting Professional and Ethical Standards Board and serves as the Chair of the Finance and Risk Committee for Surfing Australia.

Rachel has been on the advisory committee for the DFCRC bid since its inception and is taking a particular interest in the regulatory research program, and its audit and accounting aspects for Digital Finance. She brings a unique combination of a deep understanding of the field alongside extensive expertise in governance and auditory oversight. Rachel was also instrumental in the DFCRC's gaining of support from the national accounting and auditory bodies.

### 03. Professor Julie Cogin

Professor Julie Cogin is the Deputy Vice-Chancellor (Business and Law) and Vice-President at RMIT University, Australia's largest multisector university. She also serves as a Non-Executive Director on the board of ASX200-listed company G8 where she Chairs the People and Culture sub-committee. Julie also Chairs the board of RMIT Training Pty Ltd.

Over the past two decades, Julie has held a number of senior academic leadership positions, including Dean and Head of UQ Business School at the University of Queensland where she was the first female Dean of a Business School Dean at a Go8 university. Proceeding this, Julie was the Director of the Australian Graduate School of Management, University of New South Wales.

Julie is a recognised thought leader in high-performing corporate workplaces, and authored books and academic papers in world-leading journals. She has secured substantial competitive grant funding from the Australian Research Council and industry as well as numerous national educational awards.

Julie has over 25 years' experience in consulting and delivering educational content for many leading corporations across Australia, Asia and the US, including Australia's top four banks and Hong Leong Bank in Asia, several large insurance companies, Qantas, GE, News Corp, Boral, Deutsche Post DHL, PWC, KPMG and Optus.

Julie has been engaged as an expert witness in several tribunals and courts of Australia. In 2016, she was named as one of Australia's Women of Influence for her work to address gender imbalance in leadership roles and in 2022 admitted to Chief Executive Women (CEW).

### 04. Jon Deane

Jon Deane is the Chief Executive Officer of Trovio Group, Asia Pacific's leading hybrid asset manager and technology solutions architect. Jon was previously the CEO of TCM Capital, an asset management and advisory firm focused exclusively on native digital assets.

Prior to this Jon was a Managing Director at JP Morgan, as Head of Commodities Trading for Asia Pacific based in Singapore. Over the course of his career, Jon has developed a number of businesses for JP Morgan including Global Biodiesel Trading franchise, Global Iron Ore, Global Coking Coal, and more recently the Steel and freight franchise. He was a member of the Global Commodities Management team and the Asia Macro Management team.

## 05. Clare Gill

Clare Gill is an experienced and highly qualified executive with over 20 years' experience in the innovation, technology, media, telecommunications, agriculture and infrastructure sectors. Her experience spans multiple functions from marketing, communications, brand management, public relations, government relations, investor relations, regulatory affairs and corporate affairs.

With an extensive management background in listed companies, research institutes (including NICTA), co-operatives, government enterprises and fintech start-ups, Clare has held numerous senior executive positions and has a strong track record in setting strategy and closely collaborating with boards and CEOs.

Clare is Chief Regulatory and Sustainability Officer, Seven West Media. Prior to this she was Group Director, Regulatory Affairs and Spectrum Strategy, for the Nine Group. Clare has a strong track record in economic regulation and as a regulatory leader in the Australian media was instrumental in developing and advocating for the policy that underpinned the News Media Bargaining Code.

For over four years she was Head of Government and Corporate Affairs for SingTel Optus and has held executive positions at Ericsson and SunRice. As a Corporate Affairs Consultant, Clare also assisted organisations such as NICTA, Data61 and the Capital Markets CRC.

Currently a Non-Executive Director of the RoZetta Institute, Clare serves in a similar capacity for numerous organisations including Freeview Australia, Regional Broadcasters Australia Holdings and Free TV Australia. Previously Clare was a Non-Executive Director for the Australian Mobile Telecommunications Association.

Clare is a graduate of the Australian Institute of Company Directors and holds a Bachelor of Arts, Post Graduate Diploma in Communications and Master of Arts from Latrobe University, and a Post Graduate Diploma in Commerce from The University of Sydney.

## 06. Professor Dan Johnson

Professor Dan Johnson is the Pro Vice Chancellor Research, Innovation and Enterprise at Macquarie University. The PVC Research, Innovation and Enterprise provides strategic and operational leadership on all matters relating to research and development, consultancy, innovation, translation, commercialisation, entrepreneurship, start-up company incubation and corporate partnerships.

Prior to joining Macquarie University Dan was Managing Director of The Australian Wine Research Institute (AWRI) from 2011 to 2020, where he retains an Honorary Fellowship. AWRI is a not-for-profit research and development organisation that employs >130 scientists, engineers, viticulturists and winemakers and provides professional and scientific services to agricultural industries, particularly grapegrowers and winemakers, and the broader community. It is one of the world's most highly regarded research agricultural science institutions and has been a major force in the Australian wine sector's development to an \$US8 billion sector employing more than 60,000 people.

Dan has extensive experience as Chair, Director or member of numerous Boards and committees in the research and agricultural sectors, including entities related to education and training, social policy and investment, scientific and trade publishing, technology transfer, scientific leadership, research strategy (in various disciplines), sector leadership and innovation precinct leadership.

Dan has worked in research, development, technology transfer and innovation for nearly 20 years, primarily in the not-for-profit sector. Dan has been directly involved in raising and/or administering >\$300 million for research institutes, start-up companies and venture capital firms and been directly involved in establishing nine start-up companies. Dan is an exemplary scholar and has an outstanding research publication record in his own right.

Dan is a graduate of the Australian Institute of Company Directors, a graduate of the Harvard University Authentic Leadership Development course, a graduate of the INSEAD Blue Ocean Strategy course, a graduate of the IESE Business School Negotiation program and a graduate of the Oxford Advanced Management and Leadership Program.

## **07. Greg Medcraft**

Greg Medcraft is currently an independent non executive Director of:

- Australian Finance Group Ltd a leading listed financial services group in Australia;
- Global Blockchain Business Council (GBBC) - Digital Finance, a global market standards and education industry group; and
- Salzburg Global Seminar Inc, a Washington based think-tank.

He also acts as Senior Board adviser to:

- Infraclear Inc, a Washington based fintech
- LendInvest a listed UK based fintech property finance and fund manager Inc
- Greg has extensive experience working in financial markets and services, from a policy, regulatory and industry perspective.
- In policy, Director of the OECD from 2017 to 2021 overseeing OECD's policy and standard setting work in the fields of markets and business conduct, including digital and sustainable finance. Greg established the OECD Blockchain policy research centre and annual forum and was a member of the Financial Stability Board's taskforce, report and recommendations on issues and regulatory approaches global stablecoins. He also was a member World Economic Forum's Blockchain and Digital Assets group's work on DeFi policy.
- In regulation, from 2009 to 2017, he was initially a Commissioner and later the Chairman of the Australian Securities and Investments Commission (ASIC), Australia's corporate, markets, financial services and credit regulator. At ASIC, he established the Fintech Innovation Hub and Fintech sandbox. While ASIC Chairman, Greg was also, for three years until May 2016, Chair of the International Organization of Securities Commissions (IOSCO) Board and a member of the Financial Stability Board.
- In industry, initially with accounting firm KPMG then nearly 3 decades in investment banking Société Générale in Australia, Asia, Europe and the Americas and then as CEO of the industry group, the Australian Securitisation Forum. At Société Générale, he initially worked on corporate finance, then capital markets. When he was based in New York, Greg co-founded the industry group, the American Securitization Forum, and was its Chairman for a number of years.

Greg, an Australian national, holds a Bachelor of Commerce from the University of Melbourne and is a qualified Chartered Accountant.



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