2025 NSW Commercialisation Showcase

Aerial UTS Function Centre
Wednesday 30 April 2025

NSW GOVERNMENT

2025 NSW Commercialisation Showcase

NSW GOVERNMENT

Order of Proceedings

9:00 AM - 9:15 AM

Acknowledgement of Country and Introduction to the Commercialisation Showcase
Professor Hugh Durrant-Whyte, NSW Chief Scientist & Engineer

9:15 AM - 9:30 AM

Presentation: NSW - A Hub for Global Innovation
Rebecca McPhee, Deputy Secretary, Investment NSW

9:30 AM - 9:45 AM

Presentation: Driving Innovation for a Sustainable Future
Justin Koek, Director, Net Zero Industry and Innovation Program, NSW Department of Climate Change, Energy, the Environment and Water

9:45 AM - 10:45 AM

Showcase: Government Innovation and Procuring Solutions
Presentations from a range of leading NSW businesses regarding their experiences in working with the NSW Government to address important challenges.

Session Host: Jill Freyne (Deputy Chair, NSW Smart Sensing Network)

10:45 AM - 11:15 AM

Morning tea

11:15 AM - 11:45 AM

Panel: From Lab to Market
Panel session exploring how NSW commercialisation programs support the translation of research into commercial products.

Moderator: Anne O'Neill (Director, Enterprise, NSW Health and Medical Research)

Panel members: Michael Hush (Chief Scientific Officer, Q-CTRL), Jess Smith (Investment Manager, Brandon Capital), Steve Yatomi-Clarke (CEO, Aurora Biosynthetics), Dr Jekaterina Viktorova (Founder & CEO, Syenta).

11:45 AM - 12:45 PM

Showcase: Innovating for Impact
Presentations from a range of leading NSW businesses demonstrating how their cutting-edge innovations are transforming industries, from defence and space to digital transformation, advanced manufacturing, net zero and health.

Session Host: Hebbat Manhy (Group Executive, Technology and Commercialisation, Cicada Innovations)

12:45 PM - 1:45 PM

Network and Explore Exhibitor Innovations over Lunch

1:45 PM - 2:20 PM

Showcase: Commercialisation Pitchfest Part 1
Three-minute pitches from high-performing NSW startups and small businesses driving innovation.

Session Host: Mike Nicholls (Partner, Main Sequence)

2:20 PM - 2:40 PM

Afternoon Tea

2:40 PM - 3:15 PM

Showcase: Commercialisation Pitchfest Part 2
Three-minute pitches from high-performing NSW startups and small businesses driving innovation.

Session Host: Mike Nicholls (Partner, Main Sequence)

3:15 PM - 3:20 PM

Minister's Address
The Hon. Anoulack Chanthivong MP, Minister for Innovation, Science and Technology

Closing Remarks
Professor Hugh Durrant-Whyte, NSW Chief Scientist & Engineer

3:20 PM - 4:00 PM

Networking and Demos

4:00 PM

Event Concludes

Foreword from the NSW Chief Scientist & Engineer

Welcome to the 2025 NSW Commercialisation Showcase.

The inaugural Commercialisation Showcase was held a year ago at this venue, and was a tremendous celebration of the many programs run by my office to support the translation of innovation – through collaboration between government, the research sector, and emerging and established industry – to ensure commercial success and real-world impacts for NSW.

For this year's Showcase, we've cast the net wider to look at other successful programs commercialising innovation across government:

- The Medical Devices Fund (MDF), the extraordinarily successful program administered by the Office for Health and Medical Research, which has supported the development of 48 devices over 12 years, with a total funding of $92 million. The MDF has been the inspiration for now-established programs run by my office, including the Physical Sciences Fund and Biosciences Fund.
- Initiatives run by our NSW Research Networks – the NSW Smart Sensing Network, Defence Innovation Network, Space Research Network, Connectivity Innovation Network and Decarbonisation Innovation Hub.
- DCCEEW's Clean Technology Innovation Program, which is investing up to $195 million to fast-track emerging solutions to reduce greenhouse gas emissions to achieve net zero by 2050.
- Investment NSW's suite of programs, including the Minimum Viable Product Ventures Program, Boosting Business Innovation Program and Tech Vouchers, and NSW Going Global Export Program.

With the Advanced Manufacturing Readiness Facility now open for business and the RNA Research and Pilot Manufacturing Facility due to commence operations in 2026, we are in an exciting time for innovation in this state.

Today, we have a packed schedule of presentations, showcases, panels and pitches. There are also over 40 display tables where you can meet the innovative companies the NSW Government has supported and see first-hand their devices and systems.

Enjoy the event and be sure to discuss opportunities to drive innovation forward in NSW.

Professor Hugh Durrant-Whyte
NSW Chief Scientist & Engineer

Biosciences Fund

The Biosciences Fund (BioSF) is a competitive technology development and commercialisation program funded by the NSW Government and administered by the Office of the NSW Chief Scientist & Engineer.

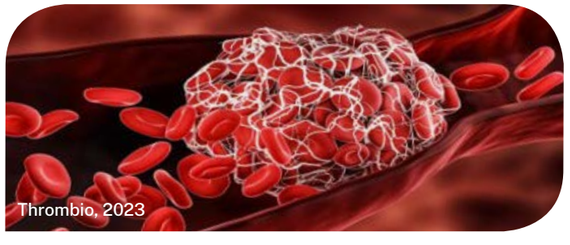
The objective of the BioSF is to progress new and innovative devices and systems towards commercialisation within NSW across the branches of the biological sciences (biotechnology and life sciences), including biomanufacturing, genetic engineering, synthetic biology and agrifood.

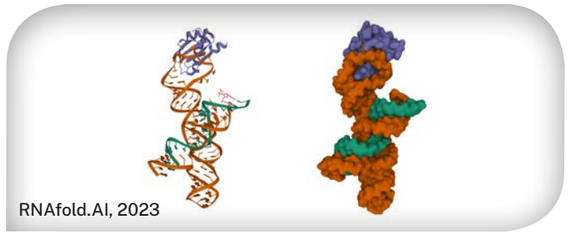
The BioSF targets innovative devices/systems within Technology Readiness Levels (TRL) 3 – 7 and aims to help them move along the TRL scale, be successfully commercialised and attract large-scale private investment.

In 2023/24 the BioSF provided $4.5 million funding for grants of between $200,000 to $2 million.

The second round of the BioSF is currently accepting applications and will close on Thursday 1 May, 2025.

Company	Device/System	Description	Year
RNAfold.AI	An AI assistant for RNA-targeting drug discovery	To tackle challenges in drug discovery and design, RNAfold.AI have developed a suite of AI algorithms capable of optimising new RNA targeting drugs all the way to clinical trials, even for previously 'undruggable' protein targets.	2023
Funding Amount: $1,025,238		**Contact:** Alex Gavryushkin, 02 9188 9369, alex@rnafold.ai	
Skin2Neuron	Primaverah©, a Hair Follicle-derived Neuroprecursor Cell Therapy Technology for the 'functional cure' of Alzheimer's disease	Skin2Neuron's core technology is a manufacturing process for production of Hair Follicle-derived Neuroprecursors (HFNs) – a new cell type for personalised medicine with potential to revolutionise the treatment of neurological disorders.	2023
Funding Amount: $1,996,762		**Contact:** Michael Valenzuela, 0413 603 784, mvalenzuela@skin2neuron.org	
Thrombio	A novel antiplatelet agent – TBO-309 – which targets an entirely new antithrombotic mechanism linked to the intracellular signalling enzyme, PI 3-kinase (PI3Kß)	ThromBio's therapeutic, TBO-309, is a first-in class, small molecule, antiplatelet drug, for treatment of stroke by enhancing stroke thrombolysis (the breakdown of blood clots formed in blood vessels) without increasing bleeding risk.	2023
Funding Amount: $1,478,000		**Contact:** Peter Bush, 0419 018 369, peter.bush@thrombio.com.au	


Thrombio, 2023


RNAfold.AI, 2023

Bushfire Commercialisation Fund

The NSW Government established the Bushfire Commercialisation Fund (BCF) under the NSW Bushfire Response R&D Mission to accelerate the development, commercialisation and adoption of bushfire technologies and services in NSW.

The objective of the BCF was to enable businesses to:

- progress bushfire technology along the commercialisation pathway, or
- adapt existing technology for use in bushfire management or operations.

The BCF targeted innovative devices/systems within Technology Readiness Level (TRL) 3 – 7 to help them move along the TRL scale and enable them to attract large-scale private investment.

The BCF provided funding support through a competitive process to individuals, companies, research institutes and universities to take local innovations to market.

The BCF has now concluded.

Organisation	Device/System	Description	Year
FireFront Pty Ltd	FireMapper	An offline electronic mapping solution, integated into FireMapper to provide crucial real-time fireground information using mobile devices as a 'mesh' network from personnel in the field.	2023
Funding Amount: $431,000		**Contact:** Konrad Gebels (MD), konrad@firefront.com.au	
Halsyon Pty Ltd	Responder HQ	Resource management tool to help teams efficiently plan, coordinate, and deploy people and vehicles during emergencies.	2023
Funding Amount: $581,000		**Contact:** Matthew Pope (CEO), matthew.pope@responderhq.com.au	
SiNAB	Phoenix Pod	Fully integrated, self-contained sensor and rapid air-to-ground communication system that can attach to aircraft to provide intelligence, surveillance and reconnaissance capabilities commonly used in Defence.	2023
Funding Amount: $215,400		**Contact:** Peter Axiotis (Project Lead), paxiotis@sinab.com	
Urban Research and Planning	Refuge software-as-a-service	Software to better manage community safety and evacuation from natural hazards by providing up-to-date evacuation and avoidance routes.	2023
Funding Amount: $50,000		**Contact:** Dr Kam Tara (CEO), kam@urap.com.au	
Zetifi	Connecting Bushfire Operations	Building on ZetiLink to deliver last-mile connectivity for fireground management and operations.	2023
Funding Amount: $1,000,000		**Contact:** Dan Winson (Founder & CEO), 0410 351 270, dan@zetifi.com	


SiNAB, 2023

Bushfire Technology Pilots Program

The NSW Government established the Bushfire Technology Pilots Program (BTPP) under the NSW Bushfire Response R&D Mission to enable both existing and new bushfire technologies to be field-tested and evaluated by frontline NSW bushfire services.

The objective of the BTPP was to enable businesses to:

- commercialise field-ready technology for bushfire-related applications through the trial or pilot of technology with end-user agencies in NSW
- improve end-user agencies' awareness of innovation possibilities in bushfire management and operations through exposure to new technology.

The BTPP has now concluded.

Company	Device/System	Description	Year
Airborne Mission Systems (AMS)	AFDAU-TI Data Acquisition Unit	An onboard aircraft data platform capturing real-time information, improving communication capabilities, safety and decision making.	2023
Funding Amount: $97,887		**Contact:** Levi Vohland (Co-Founder), levi@ams-aus.com	
Australian UAV Technologies	Ears and Eyes over the fireground (Flamingo Mk3)	Fully autonomous fixed wing aircraft that can improve communications and situational awareness to ground crew using RPAS technology during emergencies.	2023
Funding Amount: $218,800		**Contact:** Gerry Gerlach (CEO), gerry.gerlach@silvertone.com.au	
BIOSCOUT	FireScout	Improving bushfire detection and air quality monitoring using autonomous air sampling units developed for the agricultural sector, adapted to detect bushfires from microsopic imaging of air samples.	2023
Funding Amount: $250,000		**Contact:** Dr Michelle Demers (Head of Science), michelle@bioscout.com.au	
FireFront Solutions	FireMapper - Interagency Situational Awareness Capability	Providing interagency real-time situational awareness capability, and electronic mapping and information of the emergency situation.	2023
Funding Amount: $219,700		**Contact:** Konrad Gebels (MD), konrad@firefront.com.au	

FireFront Solutions, 2023

Company	Device/System	Description	Year
Flaim Systems	Flaim Trainer -Wildfire	Providing immersive and interactive training for bushfire volunteers and staff through a new VR training module.	2023
Funding Amount: $250,000		**Contact:** Glenn Nelson (Program Manager), glenn.nelson@flaimsystems.com	
Kablamo	Remote Ignition Detection in High-Risk Areas	Validating new fire alerts quickly by analysing satellite data and secondary sources, together with fire prediction modelling to provide decision makers with information on potential risk.	2023
Funding Amount: $250,000		**Contact:** Clare Burrows (Business Dev. Manager), clare.burrows@kablamo.com.au	
Kablamo	Bushfire and smoke image recognition engine	Providing tailored intelligence to firefighters for improved on-the-ground awareness during emergencies.	2023
Funding Amount: $250,000		**Contact:** Clare Burrows (Business Dev. Manager), clare.burrows@kablamo.com.au	
Milvus Fire Units	Milvus Remote Area Fire Unit	Enabling firefighting in remote areas with limited access to equipment and water.	2023
Funding Amount: $150,000		**Contact:** Kenneth Evans (Director), milvusfire@gmail.com	
Oneblink/ Know-Where	Good-To-Go - BTPP Round 2	Building on their successful pilot in BTPP Round 1 to connect their asset and maintenance system into corporate systems used by all NSW Government agencies.	2023
Funding Amount: $250,000		**Contact:** Darren Besgrove (Director), darren@oneblink.io	

Unleash Live, 2022

Company	Device/System	Description	Year
Decon Technologies	Smart Power Cell (SPC)	Providing remote controlled solar power for sites where supply is damaged by bushfires or where permanent power supply is yet to be established.	2022
Funding Amount: $95,420		**Contact:** Brett Matheson (Executive GM), brettmatheson@deconcorp.com.au	
Diffuse Energy	Hyland Wind Turbine	Unique wind turbine design,delivering clean and renewable power for remote telecommunication sites.	2022
Funding Amount: $100,000		**Contact:** James Bradley (CTO), james.bradley@diffuse-energy.com	
Loc8r	Good-To-Go-BTPP Round 1	Ensuring emergency personnel have all the necessary equipment in the field using RFID tags and handheld readers.	2022
Funding Amount: $96,000		**Contact:** Darren Besgrove (Director), darren@oneblink.io	
Meshed Pty Ltd	Fire Hazard and Environmental Monitoring Kit	Evaluating weather and fuel conditions via a network of sensors and long range WIFI for early detection of fires.	2022
Funding Amount: $78,050		**Contact:** Catherine Caruana-McManus (Director Sales & Strategy), sales@meshed.com.au	
Unleash Live	Live Stream AI Analysis	Improving decision making by providing tailored analysis from multiple live-streamed data/video that provide an instant overview of the emergency situation.	2022
Funding Amount: $16,420		**Contact:** Hanno Blankenstein (CEO), getstarted@unleashlive.com	

Clean Technology Innovation Program

The NSW Government's Clean Technology Innovation Program is investing up to $195 million in researchers, innovators and entrepreneurs across NSW to fast-track the emerging clean technology solutions needed to reduce greenhouse gas emissions to achieve net zero by 2050.

A thriving clean technology community in NSW creates huge economic growth, fuelling new investment, jobs and opportunities for businesses and our communities. The key industries being targeted by NSW Government grants include but are not limited to:

- Energy
- Transport
- Built environment
- Land and primary industries.

Clean Technology Innovation is one of the three focus areas within the Net Zero Industry and Innovation Program, in the NSW Department of Climate Change, Energy, the Environment and Water.

Company	Location	Description	Year
Green Gravity Operations	North Wollongong	The project will study the design and construction of the Weighted Object and Gripper sub-systems, converting excess energy into potential energy by lifting weights for later electricity generation.	2025
Funding Amount: $250,000		**Contact:** greengravity.com	
Halocell Energy	Bomen, Wagga Wagga	Specialising in advanced battery technology, Halocell Energy is focusing on efficient, eco-friendly storage for renewables and EVs. Their project studies low-cost, high-efficiency perovskite solar modules and tandem stacks.	2025
Funding Amount: $250,000		**Contact:** halocell.energy	
Azaneo	Sydney	Utilising advanced technologies such as data analytics and precision agriculture, Azaneo aims to enhance farming efficiency and sustainability. Their project will design and develop a prototype solid-state generator system tailored to their electrical weeding technology.	2025
Funding Amount: $225,000		**Contact:** azaneo.au	
Syenta	Sydney	Syenta's project studies high-speed laser fabrication for components essential to their novel copper metallisation method in solar cell manufacturing.	2025
Funding Amount: $250,000		**Contact:** syenta.com	
Orica Australia	Kooragang	The project investigates the technical and commercial feasibility of a CO_2 circular economy project for waste gas produced at Orica's Kooragang Island facility.	2025
Funding Amount: $233,000		**Contact:** orica.com	
LLEAF	Sydney	The project studies cost-effective production of larger-form polymers, including dye master batching, polymer extrusion/blowing, and testing.	2025
Funding Amount: $250,000		**Contact:** lleaf.com	
PVT Energy	Sydney	PVT Energy integrates photovoltaic thermal (PVT) technology to optimise electricity and heat generation. Their project studies the feasibility of applying their Coolsheet PVT heat exchange panel.	2025
Funding Amount: $250,000		**Contact:** pvcte.com	
CSIRO	Mayfield West	Establish cloud-based digital software infrastructure to help industry and businesses get the most of their on-site renewable energy.	2023
Funding Amount: $3,748,680		**Contact:** csiro.au	
University of Wollongong	Wollongong	A Clean Energy Living Laboratory to demonstrate how microgrid technologies can ensure reliable and stable energy at large-scale businesses who have a mix of energy sources – such as EV charging, gas, solar panels and storage.	2023
Funding Amount: $1,100,000		**Contact:** uow.edu.au	
Hysata	Port Kembla	A water electrolyser pilot to demonstrate how the ultra-high efficiency technology can lower the cost of green hydrogen as a renewable fuel source.	2023
Funding Amount: $1,500,000		**Contact:** hysata.com	
Rux Energy	Sydney	A new innovative method of storing hydrogen in metal organic frameworks to provide industrial users with a lower cost of supply and storage.	2023
Funding Amount: $1,833,651		**Contact:** ruxenergy.com	
Enosi Australia	Sydney	Extend Enosi's Powertracer energy traceability platform capabilities to meet global requirements and achieve initial international commercialisation.	2023
Funding Amount: $1,000,000		**Contact:** enosi.energy	
Gridcognition	Sydney	A new software solution to help energy retailers balance supply and demand to provide more reliable energy for consumers at a lower cost.	2023
Funding Amount: $475,921		**Contact:** gridcog.com	
SparkLabs Cultiv8	Orange	A program to support the commercialisation of research-based projects and secure funding in clean agriculture and food technologies.	2023
Funding Amount: $1,254,000		**Contact:** sparklabscultiv8.com	
EnergyLab	Sydney	Expand EnergyLab's existing offerings to provide additional support for very early stages of growth for startups, including going international.	2023
Funding Amount: $931,400		**Contact:** energylab.org.au	
Climate Salad	Sydney	Scale up existing offerings and ecosystem building, specifically to fast-track a 9-month Global Growth Program.	2023
Funding Amount: $578,192		**Contact:** climatesalad.com	
Greenhouse	Sydney	Develop the Innosabi clean technology innovation platform that will host challenges to crowdsource new ways to reduce emissions.	2023
Funding Amount: $745,330		**Contact:** greenhouse.tech	
The Melt	Muswellbrook	Establish a Cleantech Pre-Accelerator and Accelerator to generate a pipeline of net zero hardware technologies.	2023
Funding Amount: $1,785,000		**Contact:** themelt.io	

Azaneo, 2025


Rux Energy, 2023

Investment NSW

Investment NSW drives resilient and sustainable growth by enabling collaborative partnerships between business, government and priority sectors and markets. To build a thriving economy, we're driving collaboration across industry, innovation and trade to give businesses the confidence they need to invest and grow in NSW.

Striving to provide economic prosperity for the people of NSW, Investment NSW leverages its strong networks across Government, industry and internationally to:

- Foster a high performing innovation system
- Develop targeted and future industries, attract investment from priority markets and drive international education outcomes to deliver a pipeline of skills
- Strengthen bilateral relationships, support businesses to export and support investment from international markets
- Deliver complex commercial transactions with the private sector to produce whole-of-government solutions for the economic benefit of NSW.

Investment NSW has a range of programs and initiatives such as:

Minimum Viable Product (MVP) Ventures Program
- The MVP Ventures Program supports startups and innovative SMEs in the product lifecycle between early-stage research and mature investment opportunities, through grants to drive the commercialisation of highly innovative and new products.

Boosting Business Innovation Program (BBIP) and TechVouchers
- The BBIP including TechVouchers builds innovation partnerships between Publicly Funded Research Organisations and SMEs, with improved access to researchers, training and facilities.

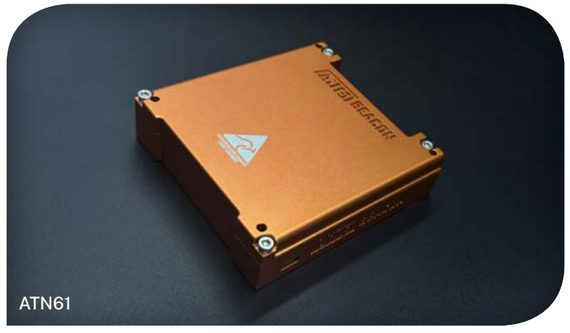
NSW Going Global Export Program
- The program is designed to help businesses expand into international markets with confidence and ease. The program also includes potential partner introductions and business matching services, as well as market visit programs, in-market assistance and logistical support to help businesses establish a foothold in target markets.

NSW Space+ Program, Waratah Seed Space Qualification Mission and the National Space Industry Hub
- The NSW Space+ Program is designed to support NSW businesses in commercialising and showcasing their innovative capabilities on the global stage at the 76th International Astronautical Congress (IAC 2025).
- The Waratah Seed Space Qualification Mission is a pilot project designed to launch NSW-developed space technology into orbit funded by the NSW Government and managed by the University of Sydney and the ARC Training Centre for Cubesats, UAVs and their Applications (CUAVA).
- Funded by the NSW Government, the National Space Industry Hub was established to provide support, mentorship and a collaborative network that empowers startups to develop and scale space applications, services and technologies.


Sicona Battery Technologies

Investment NSW has provided support to companies including:

Company	Industry	Description
MGA Thermal	Cleantech	MGA is decarbonising industrial heat by firming intermittent renewable generation into a highly reliable and versatile supply of process heat. Our long-duration thermal energy storage is scalable from 5MWh to multiple GWh, making 24/7 clean industrial steam for industry. **Contact:** Erich Kisi, erich.k@mgathermal.com
Sicona Battery Technologies	Renewable energy	Sicona develops low cost, scalable next-generation battery materials technology used in lithium-ion batteries that enable electric-mobility and storage of renewable energy. Our commitment to sustainability is demonstrated in our latest breakthrough, the Edge Functionalise Graphene solution, a thermal coolant additive poised to revolutionise energy consumption in the industry segments such as data centres and electric vehicles. **Contact:** Christiaan Jordaan, christiaan@siconabattery.com
Loop Hydrometallurgy	Cleantech	Bringing clean, versatile new technology to the production of copper and critical elements. Decarbonising and securing our domestic supply chain. **Contact:** Dave Sammut, dave@loophydromet.com.au
BioScout	Agtech	Improving bushfire detection and air quality monitoring using autonomous air sampling units developed for the agricultural sector. Monitoring for bushfires early and at a distance during fire season, as well as diseases and pollen biodiversity all year round, day and night, no matter the conditions. **Contact:** Lewis Collins, Megan Deveson, lewis@bioscout.com.au, megan@bioscout.com.au
Durst Industries	Mining Equipment, Technology and Services (METS)	Produces high quality, high-tech diagnostic, electrical testing and charging equipment for all industrial automotive equipment. **Contact:** Alf De La Harpe, alf@durst.com.au
CISO Online	Cybersecurity	Provides professional services, cyber security protection packages, ISO 27001 ISMS package, SOC 2 package and awareness training. **Contact:** hello@cisoonline.com.au
ANT61	Space	ANT61 has the Beacon, a satellite component that allows operators to maintain constant communication with their constellation, improving reliability and mission success rate. **Contact:** Mikhail Asavkin, info@ant61.com
Crest Robotics	Space	Sydney-based advanced robotics manufacturer, developing 'Charlotte', in partnership with Earthbuilt Technology to develop an autonomous robot 3D printer, for concrete-free sustainable construction and in-situ resource utilisation on Earth and on the moon. **Contact:** Clyde Webster, clyde@crestrobotics.co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Crest Robotics

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Investment NSW

Medical Devices Fund

The Medical Devices Fund (MDF) is a competitive technology and commercialisation program funded by NSW Health and administered by the Office for Health and Medical Research (OHMR).

The aim of the MDF is to progress new and innovative medical devices and related technologies in NSW towards commercialisation.

NSW Health recognises that investment in developing and commercialising medical devices and related technologies in NSW is important for ensuring innovative and effective devices can enter the market and improve patient outcomes.

Over 12 years, the MDF has supported 48 devices with a total funding of $92.1 million.

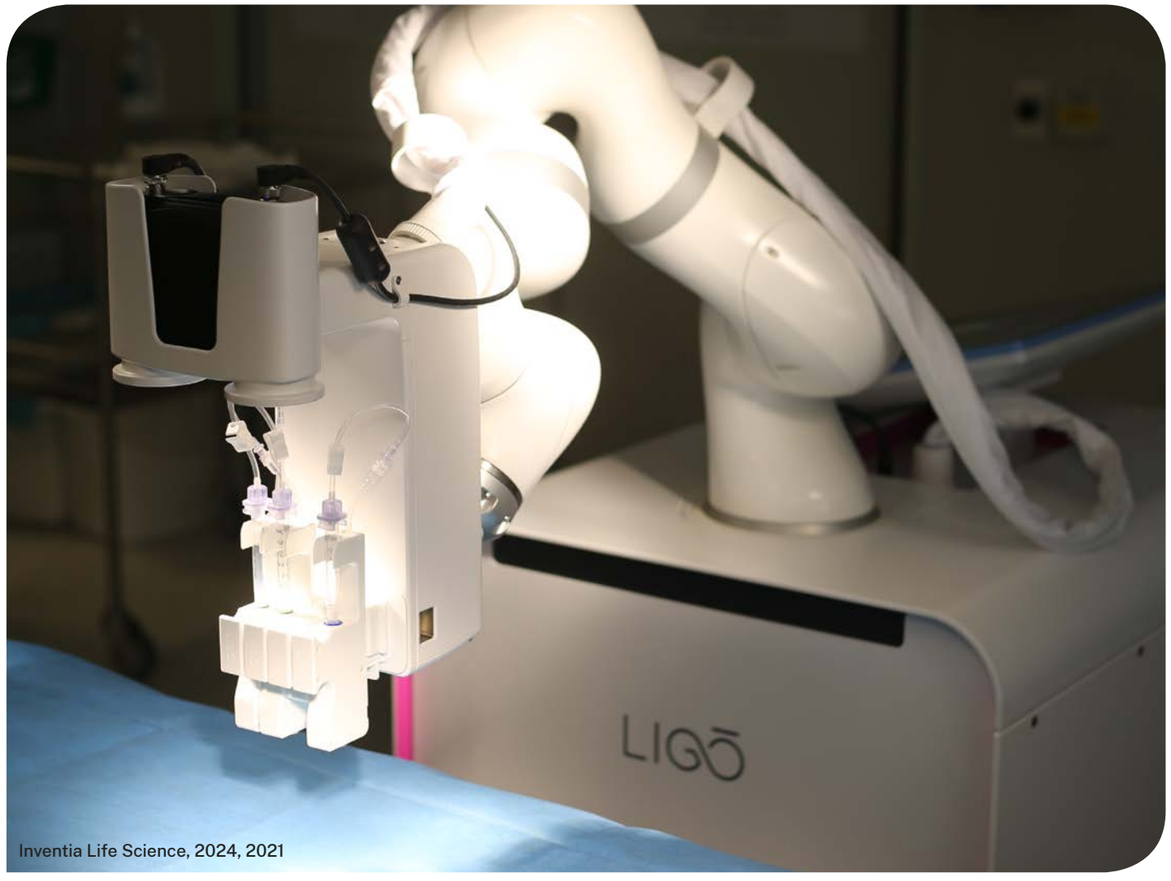
A selected number of MDF recipients are showcased below.

Organisation	Device/System	Description	Year
ARIA Research Pty Ltd	ARIA	Non-Invasive Bionic Vision System that provides functional vision analogue through sound to improve the quality of life for blind and vision-impaired people.	2024
Funding Amount: $2,000,000		**Contact:** ariaresearch.com.au	
Inventia Life Science Pty Ltd	Ligō	Robotic Assisted Platform for Regenerative Surgery: Pivotal Trial in Skin Cancer. Capable of bioprinting viable tissues at the site of injury to replicate native tissue and foster regeneration.	2024
Funding Amount: $3,469,000		**Contact:** inventia.life	
LevTech Lifesciences Pty Ltd	FORMOSUS Polymeric Heart Valve	Heart valve replacement made from proprietary polymeric material designed to be durable, biostable and biocompatible.	2024
Funding Amount: $2,077,961		**Contact:** levtechlifesciences.com	
Medlogical Innovations	ProFocal® System - Cooled Laser Focal Therapy	Creation of production facilities for the manufacture of instrumentation and sterile single-use components of the ProFocal device.	2023
Funding Amount: $2,500,000		**Contact:** medlogicalinnovations.com	
SDIP Innovations	JAZBI™	Value-added JAZBI™ Bone Implant System. Progress commercialisation of the JABZI Delivery kit, developing the JABZI Osseo Dispenser, creating human data.	2023
Funding Amount: $4,065,000		**Contact:** sdipinnovations.com	

EMVision Medical Devices, 2022

EMVision Medical Devices, 2022

Organisation	Device/System	Description	Year
Australis Scientific Pty Ltd	In-Confidence™ smart patch	Smart patch technology that aims to treat symptoms of Overactive Bladder (OAB).	2022
Funding Amount: $750,000		**Contact:** australisscientific.com	
EMVision Medical Devices Ltd	EMVision Brain Scanner	Portable, non-invasive, high-speed neuro-imaging technology to make stroke diagnosis more efficient and to fast-track decision making at the point of care.	2022
Funding Amount: $2,500,000		**Contact:** emvision.com.au	
Eudaemon Technologies Pty Ltd	Geldom	Scaled resilient material manufacturing of the next generation condom.	2022
Funding Amount: $4,035,000		**Contact:** eudaemontech.com	
AdvanCell Isotopes Pty Ltd	^{212}Pb Generator	Small isotope generator that can produce a scalable supply of Alpha 212, an alpha isotope used in Targeted Alpha Therapy for cancer treatment.	2021
Funding Amount: $2,102,050		**Contact:** advancell.com.au	
iiShield Pty Ltd	iiPJ™ (Ischemic Injury Prevention Jacket)	Single-use medical device that aims to protect the kidneys as well as reduce thermal damage during kidney transplantation.	2021
Funding Amount: $2,000,000		**Contact:** iishield.com	
Inventia Life Science Pty Ltd	Ligō	3D bioprinting platform that can accurately print a 3D blend of the patient's own cells and regenerative biomaterials to regenerate deep tissue injuries.	2021
Funding Amount: $3,624,650		**Contact:** inventia.life	



Inventia Life Science, 2024, 2021

Organisation	Device/System	Description	Year
SDIP Innovations	JAZBI™	Bioresorbable bone implants designed to mirror natural fractured bone healing.	2020
Funding Amount: $2,775,480		**Contact:** sdipinnovations.com	
Beyond 700 Pty Ltd	TearView®	Additional funding to support MDF Recipients who were significantly impacted by COVID-19 to assist with meeting ongoing operational and fixed expenses.	2020 COVID-19 Relief Fund
Funding Amount: $151,000		**Contact:** beyond700.com.au	
Kico Knee Innovation Company Pty Ltd	360KS Customised Knee Replacement	Additional funding to support MDF Recipients who were significantly impacted by COVID-19 to assist with meeting ongoing operational and fixed expenses.	2020 COVID-19 Relief Fund
Funding Amount: $1,000,000		**Contact:** 360med.care	
Perx Health	Perx	Additional funding to support MDF Recipients who were significantly impacted by COVID-19 to assist with meeting ongoing operational and fixed expenses.	2020 COVID-19 Relief Fund
Funding Amount: $380,000		**Contact:** perxhealth.com	
Trimph Technology Pty Ltd (now Tetratherix Pty Ltd)	TrimphDent®	Additional funding to support MDF Recipients who were significantly impacted by COVID-19 to assist with meeting ongoing operational and fixed expenses.	2020 COVID-19 Relief Fund
Funding Amount: $481,381		**Contact:** tetratherix.com	
Baymatob Pty Ltd	Oli™	Pre-trial development of the Oli™ device in supporting and executing clinical trials.	2019
Funding Amount: $2,960,000		**Contact:** baymatob.com	
Beyond 700 Pty Ltd	TearView®	System that allows clinicians to see the formation and integrity of the tear film to be able to identify issues more effectively.	2019
Funding Amount: $830,000		**Contact:** beyond700.com.au	
PAFtec Australia Pty Ltd (now CleanSpace Technology Pty Ltd)	CleanSpace Respirator	Implementation and adoption of an innovative, re-usable respirator designed for Pandemic Preparedness in acute care settings.	2019
Funding Amount: $2,311,000		**Contact:** cleanspacetechnology.com	
Perx Health	Perx	Digital therapeutic that engages and motivates users to better self-manage their condition and form healthy habits.	2019
Funding Amount: $748,000		**Contact:** perxhealth.com	

Organisation	Device/System	Description	Year
Ellen Medical Devices Pty Ltd	LN01 Portable Dialysis System	Cost-effective, solar powered peritoneal dialysis system used to treat kidney disease and filter waste from the blood. Able to sterilise fluid on-site.	2018
Funding Amount: $2,200,000		**Contact:** ellenmedical.com	
Eudaemon Technologies Pty Ltd	Geldom	Condoms made from materials called tough hydrogels to better meet sexual and reproductive health and wellness needs.	2018
Funding Amount: $1,000,000		**Contact:** eudaemontech.com	
iFix Medical Pty Ltd	iFix System	3D printing technology with two components – iFixInk™ and iFixPen®, used to deliver a transparent structure to seal wounds in the treatment of corneal disease and injuries.	2018
Funding Amount: $1,150,000		**Contact:** ifixmedical.com	
Kico Knee Innovation Company Pty Ltd	360KS Customised Knee Replacement	Customised total knee replacement technology platform that has both hardware and software components for orthopaedic surgeons to tailor care regimes.	2018
Funding Amount: $2,500,000		**Contact:** 360med.care	
Trimph Technology Pty Ltd (now Tetratherix Pty Ltd)	TrimphDent®	Injectable scaffold that preserves the socket to allow for bone regeneration during tooth extractions.	2018
Funding Amount: $1,000,000		**Contact:** tetratherix.com	
Baymatob Pty Ltd	Oli™	Maternal Sensing Unit that allows real time observation of uterine activity to monitor pregnancy and labour progression.	2017
Funding Amount: $1,470,000		**Contact:** baymatob.com	
Medlogical Innovations	ProFocal-Rx	Minimally invasive laser device that delivers focal laser therapy to treat prostate cancer.	2017
Funding Amount: $1,250,000		**Contact:** medlogicalinnovations.com	
SpeeDx Pty Ltd	ResistancePlus™	Diagnostic Tests for antibiotic resistance in Sexually Transmitted Infections (STI).	2017
Funding Amount: $2,500,000		**Contact:** plexpcr.com	
Western Sydney LHD	Mu Catheter	Microwave ablation (inactivate with heat) system to treat hypertension through Renal Denervation (RDN) by ablating the kidney nerves.	2017
Funding Amount: $1,390,000		**Contact:** wslhd.health.nsw.gov.au	
Elastagen Pty Ltd (acquired by Allergan in 2018; then acquired by AbbVie in 2020)	Tropoelastin Dermal Regeneration Template (TDRT)	Development of medical products using tropoelastin for the treatment of medical and aesthetic skin conditions.	2016
Funding Amount: $4,000,000		**Contact:** N/A	
HearWorks (acquired by National Acoustics Laboratory in 2019)	Auditory Cortical Discrimination (ACORD) test module	Development of a module that will support National Acoustic Laboratory's automatic cortical audiometer, used to conduct electrophysiology for hearing assessments.	2016
Funding Amount: $750,000		**Contact:** nal.gov.au	

Elastagen, 2016, 2013

Organisation	Device/System	Description	Year
Atomo Diagnostics Pty Ltd	Atomo HIV Self-Test	Rapid diagnostic self-test device for HIV.	2015
Funding Amount: $1,800,000		**Contact:** atomodiagnostics.com	
Cmee4 Productions Pty Ltd (now Sound Scouts HQ Pty Ltd)	Sound Scouts	An application incorporating games that screens for hearing loss in children.	2015
Funding Amount: $1,078,740		**Contact:** soundscouts.com.au	
Maverick Biomaterials Pty Ltd	Maverick Biomaterials pericardium product	Bovine materials used in the manufacture of heart valves that will be implanted into patients using keyhole surgery.	2015
Funding Amount: $337,500		**Contact:** maverickbio.com	
PAFtec Australia Pty Ltd (now CleanSpace Technology Pty)	CleanSpace™ Respirator	High quality respirator designed for healthcare workers who are at risk of airborne biohazards.	2015
Funding Amount: $2,196,000		**Contact:** cleanspacetechnology.com	

Organisation	Device/System	Description	Year
Allegra Orthopaedics	Sr-HT-Gahnite Bone Substitute	Synthetic bone substitute material to support bone regeneration for load bearing.	2014
Funding Amount: $1,550,000		**Contact:** allegraorthopaedics.com	
Kico Knee Innovation Company Pty Ltd	Optimised Positioning System	Technology focused for application on total hip and knee arthroplasty.	2014
Funding Amount: $2,000,000		**Contact:** 360med.care	
SpeeDx Pty Ltd	SpeeDx ResistancePlus	Diagnostic Tests for Antibiotic Resistance in Sexually Transmitted Infections (STI).	2014
Funding Amount: $1,800,000		**Contact:** plexpcr.com	
Sydney Children's Hospital Network (SCHN)	SyMaxys - Paediatric Bone Rod	Paediatric implants developed to treat children born with brittle bones or malformed legs.	2014
Funding Amount: $705,000		**Contact:** schn.health.nsw.gov.au	
Elastagen Pty Ltd (acquired by Allergan in 2018; then acquired by AbbVie in 2020)	Elastatherapy™ Skin Repair	Development of medical products using tropoelastin for the treatment of medical and aesthetic skin conditions.	2013
Funding Amount: $2,000,000		**Contact:** N/A	
Endoluminal Sciences Pty Ltd	SEAL (Solution of Endovascular Aortic Leaks)	Sealing Technology used to prevent leakage in minimally invasive heart valve implants.	2013
Funding Amount: $2,448,883		**Contact:** endoluminalsciences.com	
HearWorks (acquired by National Acoustics Laboratory in 2019)	Automated Cortical Assessment Module	Development of a test module that will improve the accuracy, efficiency and reliability of current diagnostic hearing assessment procedures for the infant, aged/elderly population.	2013
Funding Amount: $662,115		**Contact:** nal.gov.au	
Saluda Medical Pty Ltd	EVOKE™	Implantable device that uses closed-loop spinal cord simulation for chronic neuropathic pain.	2013
Funding Amount: $5,000,000		**Contact:** saludamedical.com	

Elastagen, 2016, 2013

Natural Hazards Technology Program

The Natural Hazards Technology Program is a $1.89 million competitive grants program to accelerate technology innovation and adoption in NSW. The Program allows better preparation for and response to natural hazards by trialling field-ready technology with end-user NSW Government agencies. It builds on the success of the Bushfire Response R&D Mission and Bushfire Technology Pilots Program and expands the remit to provide tangible assistance in overcoming challenges from natural hazards.

The Program is designed to:

- find technology solutions to challenges faced by NSW Government agencies in the management of natural hazards
- support innovative NSW businesses to field-test their technologies with NSW Government agencies to:
  - refine and improve their product for market
  - build relationships to increase opportunities for future collaborations
- build and improve NSW Government agency awareness of innovation possibilities in natural hazards management and operations through exposure to new technology.

The Office of the NSW Chief Scientist & Engineer administers the Program.

The Program runs from January 2024 to June 2025, which includes the 12-month pilot.

Natural Hazards Technology Program Recipients
NSW businesses applied for up to $250,000 per grant application to propose their solution for one or more of the Program challenges to pilot their solution with the NSW Government agency to help solve the challenge.

Pilot Agency/ies	Successful Applicant	Challenge	Description
FCNSW (lead) & RFS (observers)	Kablamo Pty Ltd	**3. Heavy plant construction models**	**Firestory: Fire Spread Predictions for Heavy Plant Selection in Bushfire Response** Optimising the allocation of limited resources during fire operations by enhancing data intelligence through modelling time and scale scenarios for containment lines. To determine the most effective heavy plant machinery to use across diverse terrains and vegetation types.
Funding Amount: $250,000		**Contact:** Clare Burrows, clare.burrows@kablamo.com.au	
RA (lead) & RFS (observers)	Compass IOT Pty Ltd	**4. Understanding evacuation behaviours**	**Connected Vehicle Data for Real-Time and Retrospective Evacuation Decision Making** Using real-time data to better understand vehicle movements during emergencies to model how drivers are likely to behave in the next flood, fire, or emergency to streamline evacuations and keep people safe.
Funding Amount: $250,000		**Contact:** Angus McDonald, angus@compassiot.com.au	
RFS (lead) & FCNSW (observers)	Kablamo Pty Ltd	**7. Command-and-control interface**	**Athena Uplift: Command and Control Interface** Delivering an automated user interface that seamlessly ingests and analyses data from various systems, enabling time-critical operational decisions.
Funding Amount: $200,000		**Contact:** Clare Burrows, clare.burrows@kablamo.com.au	
FRNSW (lead) & RFS, SES, & DCCEEW (observers)	Kablamo Pty Ltd	**8. Intelligence creation**	**Firestory for All Hazards Intelligence at FRNSW** Providing timely intelligence and forecasting to facilitate efficient and safe operations, ultimately safeguarding lives and property.
Funding Amount: $250,000		**Contact:** Clare Burrows, clare.burrows@kablamo.com.au	
RFS (lead) & FCNSW (observers)	Ninox Robotics Pty Ltd	**14. Hazardous tree identification**	Drone based recognition and assessment of hazardous trees following a fire operation.
Funding Amount: $83,795		**Contact:** Marcus Ehrlich, marcus.ehrlich@ninox-robotics.com	
RA (lead); FCNSW, DCCEEW, RA & NPWS (observers)	Unleash live Pty Ltd	**15. Rapid asset condition & damage assessment**	Delivering rapid insights and intelligence to response agencies during natural hazards using drone photography, LiDAR, and machine learning to analyse large data sets.
Funding Amount: $248,760		**Contact:** Alistair Bridie, alistair.b@unleashlive.com	
Water NSW (lead) & DCCEEW (observers)	Surfbee Pty Ltd	**18. Measuring water flow & bathymetry in rivers**	Innovative water quality sensing and data collection using uncrewed boats providing valuable insights into water conditions in NSW.
Funding Amount: $90,000		**Contact:** Chrysthian Loiola, chrysthian@surfbee.io	
Water NSW (lead) & DCCEEW (observer)	CyanoLakes Australia	**19. Water quality monitoring & predictive capabilities**	**A Blue Green Algae Forecasting and Alert System for NSW** State-wide blue-green algal bloom forecasting and early-warning system using innovative satellite remote sensing technology and machine learning.
Funding Amount: $228,550		**Contact:** Dr Mark Matthews, mark@cyanolakes.com	
DCS (lead); RFS & SES (observers)	QBL Media Pty Ltd	**21. Multilingual emergency warnings**	**EmergencyCALD: AI-Powered Multilingual Emergency Warning System** AI-powered multilingual emergency warning system to better reach culturally and linguistically diverse communities.
Funding Amount: $156,400		**Contact:** Tat Banerjee, tbanerjee@videotranslator.ai	
NPWS (lead); FCNSW & RA (observers)	Sphere Communications Pty Ltd	**'Big Ideas' Challenge**	Enabling portable and remote drone operations beyond visual line of sight to better prevent and manage natural disasters.
Funding Amount: $132,495		**Contact:** Paris Cockinos, paris@spheregroup.com.au	

Sphere Communications Pty Ltd, 2024

NSW Research Networks

Connectivity Innovation Network

The Connectivity Innovation Network (CIN) was established in late 2021 as an initiative of the NSW Telco Authority, in consultation with the Office of the Chief Scientist & Engineer.

CIN's vision is to enhance Australia's connectivity for emergency and government services, as well as communities, by leveraging expertise from academia, industry and government to drive technological innovation. Its mission is to solve connectivity challenges and bridge the digital divide to deliver improved outcomes for the people of New South Wales.

CIN has to date awarded $1.4 million in funding to innovative connectivity-related projects, and has received $1.5 million in Commonwealth funding through the Telecommunications Disaster Resilience Innovation Grant.

It fosters collaboration between government, industry and academia through problem statement workshops, technical steering committees and innovative projects that deliver connectivity-related solutions to address challenges faced by communities and emergency service organisations in NSW. This is evidenced by the success of its first two pilot projects:

Secure Multi Organisation Data Sharing (SMODS) Platform

Funding: $200,000

The Challenge: Data Silos and Fragmented Communication
In emergencies, quick access to real-time data is critical. However, current data-sharing systems often struggle with delays, data silos and privacy concerns, limiting the effectiveness of emergency response operations.

Traditional platforms face several challenges including slow dissemination of critical information, fragmented communication channels between organisations and lack of robust privacy protections and manual data-sharing processes.

The Solution: SMODS: A secure, scalable data-sharing platform
SMODS is a data-sharing platform which will enable secure and efficient data sharing between organisations. The platform has a strong focus on real-time multimedia data sharing between Emergency Service Organisations (ESOs) for improved situational awareness during emergency events. SMODS was led by the University of Technology Sydney in consultation with World Data Exchange.

Key features:
- SMODS is the only data-sharing platform that incorporates the Australian Computer Society's Data-Sharing Framework: evaluates privacy levels, assesses access risks, and manages data lifecycles.
- Role-Based Access Control (RBAC): A flexible and scalable security model ensuring only authorised users can access sensitive data.
- OAuth Authentication: Seamless integration with existing systems for secure server-to-server authentication.
- AI-Driven Automation: Real-time data product generation, including video sharing, with strict privacy protections.

To register your interest in seeing a live demonstration of this platform at the launch of UTS' Cybersecurity Precinct & Teaching Labs on Thursday 12 June, please contact the CIN, next page.

Rapidly Deployable Large Area WiFi (LAWIFI) System

Funding: $300,000

The Challenge: Communication Failures in Critical Situations
Natural disasters often compromise traditional communication networks, delaying rescue efforts and access to essential services. Additionally, many remote communities face persistent challenges in accessing reliable internet, impacting critical services such as healthcare, education and local businesses.

Current communication technologies face limitations including limited range, slow deployment, high infrastructure costs, and limitations with both mesh networks and Wi-Fi Halow.

The Solution: Large Area WiFi (LAWIFI)
The LAWIFI system addresses these challenges by deploying advanced antenna and Wi-Fi technology capable of covering areas up to 2×2 kilometres with high-speed broadband.

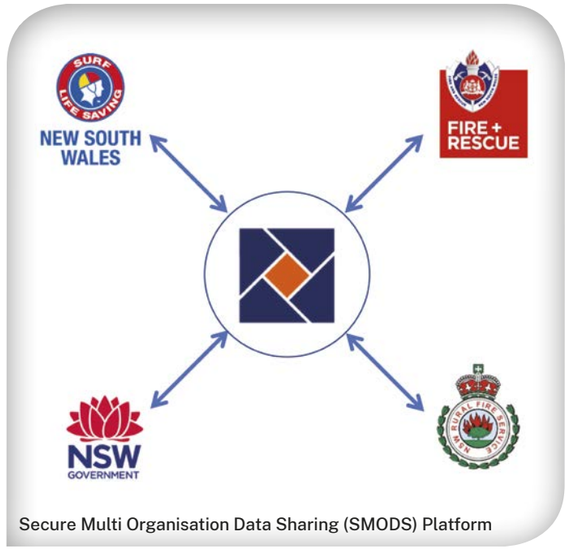
It provides a scalable, cost-effective and rapidly deployable solution for both disaster zones and underserved regions, particularly in regional and remote parts of Australia.

The project was led by the University of Sydney in collaboration with UTS, and industry partner Pivotel.

Key features:
- Novel Antenna Design: A wide beam, high-gain antenna extends coverage over large areas without compromising signal strength.
- Patented Wi-Fi Protocols: These solve the 'hidden node' problem, enabling longer transmissions with minimal interference.
- Flexible Satellite Backhaul: Using SD-WAN architecture and various satellite providers (OneWeb, NBN, Starlink), the system ensures reliable connectivity even with heavy user traffic.
- Portable Power Supply: Guarantees independent power, ensuring functionality in areas with limited infrastructure.

Seeking Commercial Partners
To register your interest in receiving a CIN 2025 commercial partner EOI, please contact the CIN, below.

Contact
E: admin@connectivityinnovationnetwork.com
W: connectivityinnovationnetwork.com



Secure Multi Organisation Data Sharing (SMODS) Platform


Rapidly Deployable Large Area WiFi (LAWIFI) System

CONNECTIVITY INNOVATION NETWORK

NSW Research Networks

Decarbonisation Innovation Hub

The NSW Decarbonisation Innovation Hub (Decarb Hub) is a Hub supporting three networks, funded by the NSW Government through the Environmental Trust. The Decarb Hub supports the NSW Government's goal of net zero emissions by 2050 and 50 per cent below 2005 levels by 2030, fostering collaboration, innovation and projects through our 10 university partners in NSW, as well as industry and government to drive decarbonisation and economic growth in NSW and beyond.

Bridging the commercialisation gap
The Decarb Hub aims to bridge the gap between research and viability to drive decarbonisation forward in NSW by supporting the development, demonstration, deployment and commercialisation of technologies from TRL 3 to TRL 6.

Innovation through collaboration
Since its inception in 2023, the Decarb Hub and its Networks have worked to accelerate and attract investment into decarbonisation tech and services projects in NSW as we move towards net zero, creating opportunities in NSW through education and a thriving clean economy.

Across its three Networks – Electrification and Energy Systems, Land and Primary Industries, and Powerfuels including Hydrogen – the Hub is currently managing 20 projects to a total value of over $2.2 million.

Partners
UNSW Sydney, University of Newcastle, Western Sydney University, UTS, University of Wollongong, University of Sydney, University of New England, Macquarie University, Southern Cross University, Charles Sturt University

Our Networks

Electrification and Energy Systems (EESN): Accelerating renewable energy solutions and addressing barriers to the uptake of electrification across the economy.

Land and Primary Industries (LPIN): Bringing together research, industry, community and government to embed decarbonisation in the next wave of sustainable land practices in NSW. Accelerating the transition to net zero, with co-benefits for people and nature.

Powerfuels including Hydrogen (PFHN): Developing technologies to support and accelerate decarbonisation projects in green powerfuels and chemicals to commercialisation.

Contact
E: info@decarbhub.au
W: decarbhub.au

Case studies

EESN: Recycling of Lithium from Discarded Battery Materials
Project Lead: Prof Andrew Harris, University of Sydney
Project Partners: Novalith Technologies

This project addresses the demand for battery materials by developing a Li-ion battery recycling process to supply lithium carbonate as a critical material for the production of new Li-ion batteries.

Novalith has established an advanced R&D lab based in Alexandria, NSW. This location will be dedicated to the development and operation of the project and pilot facility for Li-ion battery recycling.

Project timeline: Commencing in 2025

LPIN: Extracting Biomaterials/Biopolymers for use in wider Clean Economy and Decarbonisation Processes
Project Lead: Rob Gallagher, GreenChem Polymers
Project Partners: NSW DPIRD

GreenChem Polymers is collecting feasibility data of NSW biomass feedstocks, with the commercial aim of extracting biomaterials/biopolymers for use in wider clean economy and decarbonisation processes. The primary goal is to evaluate several native hardwood feedstocks (yield and quality) with an inhouse biorefinery, as the basis for future business cases.

This project could lead to the commercial deployment of up to 10 BioHubs in regional NSW using proven biotechnology to produce biomaterials/biopolymers from hardwood, which would provide natural, renewable, high value biopolymers as a substitute for current fossil-based fuels and/or plastics inputs.

Project Timeline: June 2024 – July 2025

PFHN: Surface Engineering of Ultra-Stable Alloy Catalysts for Scalable Green Hydrogen Production
Project Lead: Prof Jun Huang, University of Sydney
Project Partners: Aquaticus Green Hydrogen Pty Ltd

Water electrolysis offers a promising avenue for green hydrogen production through the use of renewable energy-derived electricity.

The project aims to develop ultra-stable electrodes by advancing corrosion-resistant alloy catalysts through surface engineering. Additionally, the project aims to design a commercial-scale and new structured electrolyser (2Nm2/h) with reduced H2 bubble accumulation and enhanced catalytic performance.

Project Timeline: January 2025 – January 2026

DECARB HUB
New South Wales Decarbonisation Innovation Hub

NSW Research Networks

Defence Innovation Network

The Defence Innovation Network (DIN) is a university-led initiative of the NSW Government and the Defence Science and Technology Group.

DIN's vision is to drive innovation that contributes to the prosperity of NSW and Australia, by supporting Australian Defence. Its mission is to mobilise universities and industry to rapidly translate cutting-edge technology into priority Defence capabilities.

DIN fulfils its mission by supporting high-impact dual-use research, attracting external investment to NSW and the ACT, advancing STEM career pathways, and fostering collaboration between the research sector, industry, government and Australia's allies.

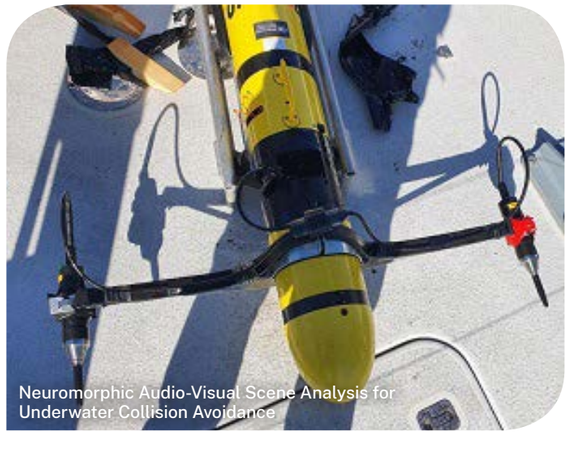
Key Achievements
Since its establishment in 2017, DIN has invested over $11 million in projects that have led to development of world-class prototypes and innovative solutions for Defence. DIN has also supported 78 PhD students working embedded within the defence industry and collaborated with over 52 small-to-medium enterprises.

Technologies developed through DIN have been successfully commercialised, enhancing Defence capabilities and driving near-to-market innovations. Companies such as Droneshield, AMSL Aero, Ocius Technology, Advanced Navigation, Quasar Satellite Technologies, DeteQt, and others have leveraged these advancements to bring cutting-edge solutions to market.

- 56 projects supported through DIN programs
- $11.6 million in funding distributed through DIN programs, and $24.7 million being the total value of DIN-funded projects
- $124.8 million of external investment attracted by DIN-funded projects
- 272 Defence projects were attracted through DIN activities
- $190 million of external investment attracted through DIN activities
- 78 supported PhD students to work on defence-related projects through DIN internship and scholarship programs
- 3 start-ups created as a result of DIN funding programs

Contact
E: info@defenceinnovationnetwork.com
W: defenceinnovationnetwork.com

Prototype Diamond Magnetometer for Navigation


Neuromorphic Audio-Visual Scene Analysis for Underwater Collision Avoidance

Case Studies

Prototype Diamond Magnetometer for Navigation
University of Sydney/UTS/Advanced Navigation/DSTG
DIN Investment: $750,000
External Investment: $4,800,000

The team has developed a cutting-edge platform technology that combines low size, weight and power with high sensitivity. Their room-temperature magnetometer, built on a single chip, offers a high dynamic range and is fully integrated with semiconductors.

This breakthrough enables applications in navigation, communication, medical imaging and inertial measurements. Developed with a NSW-based semiconductor company, the chip shrinks what once required a full laboratory setup into a sub-one-square-millimetre solution — one of only two on-chip quantum magnetometers worldwide and the only fully integrated version.

The project led to the launch of DeteQt, a startup that has secured over $4.8 million in external investment to date.

Bright Single Photon Sources for Secured Communications
UTS/UNSW/Macquarie University/Northrop Grumman
DIN Investment: $750,000
External Investment: $3,042,243

The team leveraged single-photon quantum technology to develop next-generation secure communication channels, where any hacking attempt is instantly detectable. They engineered plug-and-play ultra-bright quantum light sources operating at room temperature, scalable antennas to enhance photon emission and successfully demonstrated quantum key distribution (QKD) and secure communication.

This technology strengthens Australia's national security by ensuring encrypted information remains protected from adversaries. The team achieved Australia's first sovereign QKD and continues the work through a startup, Lumi Quantum Technologies, collaborating with local industry. Their innovations have even been pitched to NASA for potential applications and attracted over $3.04 million of external investment to date.

Neuromorphic Audio-Visual Scene Analysis for Underwater Collision Avoidance
Western Sydney University/University of Sydney
DIN Investment: $347,926
External Investment: $2,234,000

In collaboration with DSTG, the team developed a neuromorphic sensing system for real-time underwater surveillance, tested on a Remus at HMAS Creswell. Weighing under 2kg, it features high-performance hydrophones and collects low flow-noise data.

The project has secured funding from RAN and industry partners OCIUS, Qinetiq, and Thales. Under the spin-out Optera, the team is now demonstrating the technology to the U.S. Military in Alaska, further expanding its impact on defence applications.


Bright Single Photon Sources for Secured Communications

DEFENCE INNOVATION NETWORK
To go far, go together

NSW Research Networks

NSW Smart Sensing Network

The NSW Smart Sensing Network (NSSN) is a leading innovation network funded by the NSW Government through the Office of the NSW Chief Scientist & Engineer. A consortium of the eight universities across NSW and the ACT, the NSSN brings together university, industry and government to translate world-class research into innovative smart sensing solutions that create value for the economy, environment and society of NSW and beyond.

Why smart sensors matter
Smart sensors are transforming industries by detecting changes in the environment around them and providing real-time data to support informed decision-making. Smart sensing technology is revolutionising manufacturing, agriculture, energy production, human health and more. Wireless, networked sensors are powering the Internet of Things (IoT), Industry 4.0, and Smart Cities — reshaping the way we work and live.

Driving innovation since 2016
Founded in 2016, the NSSN was established to address key challenges in energy, resources, manufacturing, environment, transport, agriculture, space and health. Through strategic partnerships and collaborative research, we develop real-world solutions to tackle these pressing issues.

Since the NSSN's inception it has delivered 42 R&D projects worth over $17.6 million. We are currently managing 17 active projects valued at over $13 million.

Focus areas
The current projects align with the evolving needs of industry, government, and end-users, focusing on:

- **Environment & Agriculture:** Sustainable solutions for natural resource management
- **Human Health:** Advancing healthcare through smart diagnostics and monitoring
- **Natural Hazards:** Improving disaster resilience and response
- **Net Zero:** Accelerating the transition to a low-carbon future
- **Smart Places:** Enabling intelligent infrastructure and connected communities.

Contact
E: admin@nssn.org.au
W: nssn.org.au


Advanced Pipe Sensing to Reduce Leaks & Breaks


Eliminating Microplastic Contamination in Water

Case studies

Advanced Pipe Sensing to Reduce Leaks & Breaks

The NSW Smart Sensing Network led a $3.4 million project with six water utilities, including Sydney Water, to address leaks and breaks in critical infrastructure across 22,000km of underground pipes. By leveraging smart sensing technology, the project has cut costs and conserved water, enhancing the resilience of Sydney's water network.

Innovation in action
- A multi-disciplinary team of researchers from six NSW/ACT universities and four industry partners
- Integration of advanced sensing technologies, including quantum, data analytics, AI, acoustic, and LIDAR
- Solutions already operational at Sydney Water, resulting in:
  - $3 million in annual cost savings
  - 700 million litres of water saved each year.

Project Partners: This groundbreaking initiative brought together key players in the water sector, including water utilities: Sydney Water, SA Water, Water NSW, Melbourne Water, QLD Urban Utilities, Hunter Water; and Industry partners: Downer, THALES, UKWIR, Intelligent Water Networks, Zedelef.

Eliminating Microplastic Contamination in Water

Microplastics from textiles, tires, and industry contaminate oceans, rivers, and drinking water, threatening ecosystems and human health. In response, PEGRAS, in collaboration with the NSW Smart Sensing Network (NSSN) and the University of Sydney, has developed the world's first scalable microplastics removal system for industrial laundry wastewater.

A breakthrough in water filtration
This innovative system:

- Uses an advanced binding agent to capture microplastics
- Employs a continuous density separation process for higher filtration efficiency
- Is low-cost, non-toxic, and scalable for industrial use.

Successfully tested in January 2024, this technology moves closer to commercialisation with support from two SBIR grants totalling $1.1 million.

Impact
- Reduces microplastic pollution in water systems
- Supports circular economy principles
- Enhances water conservation

Project Partners: PEGRAS, University of Sydney.

NSSN
NSW Smart Sensing Network

NSW Research Networks

Space Research Network

The NSW Space Research Network (SRN) was established in 2021 and is a university-led initiative of the NSW Government designed to enhance NSW space industry capability through collaboration with government and academic research institutions.

Pilot R&D Projects Program
The Pilot R&D Projects Program funding scheme is an annual, competitive program supporting cross-disciplinary collaboration in NSW and the ACT. The key objective of the program is to discover and enable new collaborative project ideas for space and to help develop these ideas into concepts or technology that can attract further investment from governments and industry.

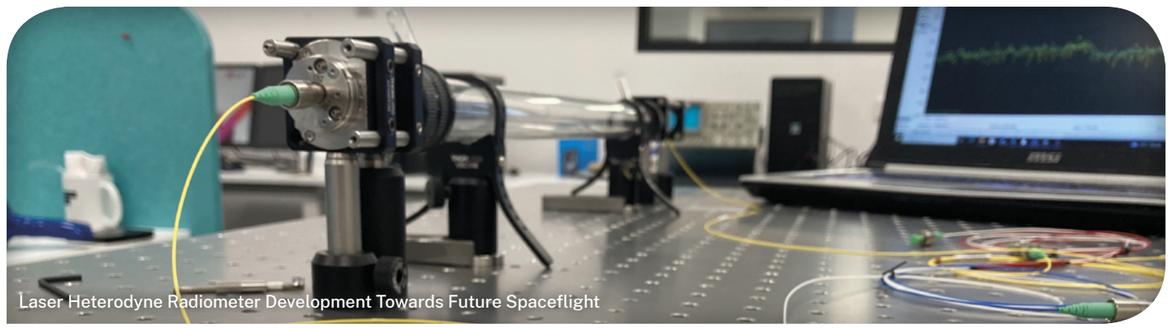
Projects should demonstrate high potential to satisfy an existing or emerging space capability need or a current or emerging space industry need.

The SRN has supported 20 Pilot R&D Projects with a total of $2.7M of funding. Several of these projects have gone on to secure further funding from industry and government, including for deployment into space for in-situ testing.

Recipients of funding from the 2024/2025 round of the Pilot R&D Projects Program will be announced in June 2025.

Contact
E: admin@srn.org.au
W: spaceresearchnetwork.org.au

Lead	Collaborator/s	Year – Project
ANU	University of Sydney	2023/2024 – **Towards Moon to Mars Flight Demonstration - Trajectory Synthesis, CubeSat Design and Navigation Payload Validation** A key gap in the Moon-Mars initiative is the lack of a defined transfer path from the Lunar Gateway to Mars. This project investigates a novel low-energy trajectory, designs a 12U CubeSat to demonstrate it, and validates two innovative deep-space navigation payloads in the lab.
Funding Amount: $120,000		**Contact:** Junichiro Kawaguchi, junichiro.kawaguchi@anu.edu.au
University of Sydney	UNSW, Location Smart (Aus)	2023/2024 – **Mitigating the Micro-Vibration of High Pointing Accuracy Satellite Devices by Multiscale Shear Damaging** This project aims to develop shear damping composites for passive micro-vibration isolation of high pointing accuracy devices onboard satellites.
Funding Amount: $120,000		**Contact:** Shuying Wu, shuying.wu@sydney.edu.au
UNSW	University of Wollongong	2023/2024 – **Advancing Australian Space Qualification via the Stratosphere** Stratospheric balloon flights offer a low-cost way to test space hardware, and this project aims to conduct two flight tests of Australian sensor and power conversion technology, including the first-ever stratospheric test of a thermoradiative diode for spacecraft power generation in eclipse.
Funding Amount: $120,000		**Contact:** Michael Nielsen, michael.nielsen@unsw.edu.au
UNSW	UTS, Purdue University	2023/2024 – **Study of Signals from LEO Constellations for Signals of Opportunity Applications** Reflectometry uses satellite signals reflected off the Earth's surface for remote sensing. This project explores the emerging use of LEO communication signals for reflectometry, given their growing availability. It will identify suitable applications, design a matching receiver, and validate the approach through testing.
Funding Amount: $120,000		**Contact:** Rozaine Wijekularatne, r.wijekularatne@unsw.edu.au
WSU	University of Sydney, Spiral Blue	2023/2024 – **Energy-Efficient Federated Learning in LEO Satellite Edge Computing using Reconfigurable Systems** Onboard processing provides the reduction in latency that is critical for various space applications such as space situational awareness and debris monitoring. The main objective is to develop an onboard processing framework for energy-efficient federated learning in Low Earth Orbit (LEO) satellite edge computing using reconfigurable systems.
Funding Amount: $120,000		**Contact:** Bahman Javadi, b.javadi@westernsydney.edu.au
University of Sydney	Macquarie University, Inovor Technologies, D-Orbt UKSpatial Information Systems ResearchDeneb Space	2022/2023 - Round 2 – **Demonstration of a Vision-Based Navigation Alternative** To develop a space-based optical navigation system that will integrate celestial body observations to derive a position and velocity.
Funding Amount: $111,593		**Contact:** Xiaofeng Wu, xiaofeng.wu@sydney.edu.au
Australian National University	University of Sydney, Boswell Technologies	2022/2023 - Round 2 – **Conductive Kapton Composite Coatings for Lunar Dust Mitigation** To develop highly conductive titanium dioxide-graphene-Kapton composite coatings, building on our recent progress in that area. The nanoparticles present in the coating hold conducting properties which equalise surface charges that prevent dust particle accumulation, making it efficient for lunar missions.
Funding Amount: $111,668		**Contact:** Karthika Prasad, karthika.prasad@anu.edu.au
Western Sydney University	UTS	2022/2023 - Round 2 – **Using Adaptation to a Lack of Visual Gravity to Identify Key Selection Factors for Astronauts** To establish the perceptual and motor characteristics of an individual that are responsible for differences in adaptability of vision and fine motor skills in visual microgravity.
Funding Amount: $110,820		**Contact:** Tamara Watson, t.watson@westernsydney.edu.au
UTS	UNSW	2022/2023 - Round 2 – **3D Printed Self-Deployable Antenna Arrays for CubeSat Applications** A novel concept of 3D-printed CubeSat antennas, using light-weight shape-memory-alloy (SMA) for motor-free in-space actuations of antenna arrays, including expansion (after launching), contraction (in-space maintenance) and attitude control (satellite communications and objects tracking).
Funding Amount: $134,991		**Contact:** Yang Yang, yang.yang-1@uts.edu.au
University of Newcastle	UNSW, Skycraft	2022/2023 - Round 1 – **Geodesy, Hydroclimate and Space Weather Experiment with Skykraft Satellite Constellation** This project is the first Australian scientific satellite mission based on a constellation of small spacecraft. It will demonstrate GNSS-based earth observation technology with the Skykraft micro-satellites originally designed for air traffic management.
Funding Amount: $150,000		**Contact:** Shin-Chan Han (UON), shin-chan.han@newcastle.edu.au


Laser Heterodyne Radiometer Development Towards Future Spaceflight

SRN
NSW Space Research Network

Lead	Collaborator/s	Year – Project
UNSW	University of Wollongong	2022/2023 - Round 1 – **Advanced High Temperature Composites for Solid Rocket Motors in Space Launch Vehicles** This project aims to develop new carbon fibre composite manufacturing technology for solid rocket motor structures capable of enduring the high combustion temperature and pressure experienced in the launch phase of space vehicles.
Funding Amount: $150,000		**Contact:** Jin Zhang, jin.zhang6@unsw.edu.au
UNSW	Macquarie University	2022/2023 - Round 1 – **Passage Prediction for Mega-Constellation Satellites** The advent of mega-constellations in low Earth orbit - e.g. SpaceX's Starlink internet satellites - has significantly increased the number of close encounters. It is challenging to predict the location of such a satellite, yet the knowledge is pivotal to understanding mega-constellation behaviour and mitigating broader impact on the space environment.
Funding Amount: $146,439		**Contact:** Yang Yang, yang.yang16@unsw.edu.au
UTS	University of Sydney, ANT61	2022/2023 - Round 1 – **Satellite Servicing Docking System with Event-based Cameras** Automated satellite docking is a prerequisite for most future on-orbit servicing missions. This project will develop a novel guidance, navigation and control system for satellite docking in a semi-autonomous mode based on event-based cameras.
Funding Amount: $149,443		**Contact:** Teresa Vidal Calleja, teresa.vidalcalleja@uts.edu.au
University of Sydney	UNSW, ANSTO	2021/2022 – **A Roadmap for Space Photovoltaics in Australia** To establish a roadmap for high performance space photovoltaic technologies and to identify existing and future national infrastructure for R&D, testing and qualification critical for the emerging Australian space-photovoltaic industry.
Funding Amount: $150,000		**Contact:** Prof Anita Ho-Baillie, anita.ho-baillie@sydney.edu.au
University of Technology Sydney	University of Sydney, WSU, Spiral Blue	2021/2022 – **Cooling SmallSats - Thermal Lattice Metamaterial Technology** Develop advanced microlattice thermal metamaterials to tackle the current challenge in efficiently dissipating heat generated from the GPUs of high-performing computers that are onboard SmallSats.
Funding Amount: $141,171		**Contact:** A/Prof Zhen Luo, zhen.luo@uts.edu.au
Macquarie University	UNSW, Interplanetary Exploration Institute	2021/2022 – **Laser Heterodyne Radiometer Development Towards Future Spaceflight** Develop key technology to enable the use of space-based laser heterodyne radiometer for fingerprinting and classifying methane emissions sources.
Funding Amount: $140,646		**Contact:** Dr Ediz Cetin, ediz.cetin@mq.edu.au
Macquarie University	UTS, ANSTO	2021/2022 – **Space Qualification of Gallium Nitride Power Amplifiers** To qualify GaN technology for reliability in space applications. It will lead to sovereign capability in designing GaN communication electronics qualified for usage in space-borne systems.
Funding Amount: $149,830		**Contact:** Prof Chun H Wang, chun.h.wang@unsw.edu.au
UNSW	University of Sydney	2021/2022 – **Microcrack Suppression in Lightweight and Recyclable Thermoplastic-fibre Composites for Cryogenic Liquid Hydrogen StorageTank** Development of a lightweight and recyclable fibre-reinforced thermoplastic composites technology capable of mitigating matrix microcracking at cryogenic liquid hydrogen temperature.
Funding Amount: $150,000		**Contact:** Prof Chun H Wang, chun.h.wang@unsw.edu.au
University of New South Wales	University of Sydney, Seaskip	2021/2022 – **Lunar Navigation** To develop and integrate two positioning instruments for lunar navigation: celestial navigation and high-sensitivity GNSS receiver.
Funding Amount: $149,634		**Contact:** Prof Andrew Dempster, a.dempster@unsw.edu.au
University of Wollongong	UTS, Industry Spec Drones	2021/2022 – **Multi-modal Satellite-based Vessel Surveillance via Optical and Synthetic Aperture Radar Imaging** To establish space-based surveillance capability by developing a novel multi-modal deep learning system for detecting, recognising and tracking sea vessels from satellite optical and synthetic aperture radar images.
Funding Amount: $147,282		**Contact:** Prof Son Lam Phung, phung@uow.edu.au

Physical Sciences Fund

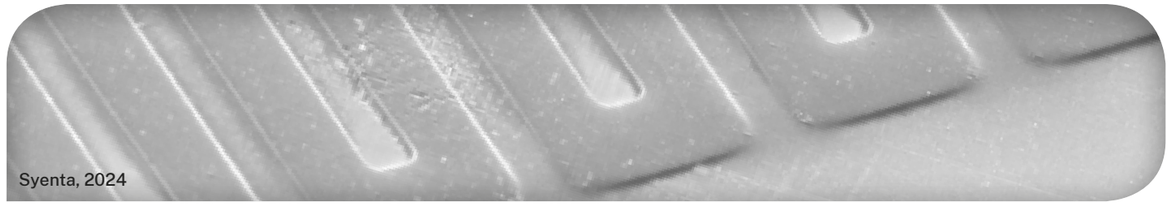
The Physical Sciences Fund (PSF) is a competitive development and commercialisation program for technological innovations in NSW.

NSW has great strengths in research across a wide range of scientific fields. The PSF aims to build on these strengths by supporting the translation of research into devices and systems ready for commercialisation, and deliver significant social, economic and environmental benefits to NSW.

The PSF provides financial support for the development of new and innovative devices and systems within Technology Readiness Levels (TRL) 3 – 7, across the branches of the physical sciences and engineering, including physics, chemistry, astronomy and the earth sciences.

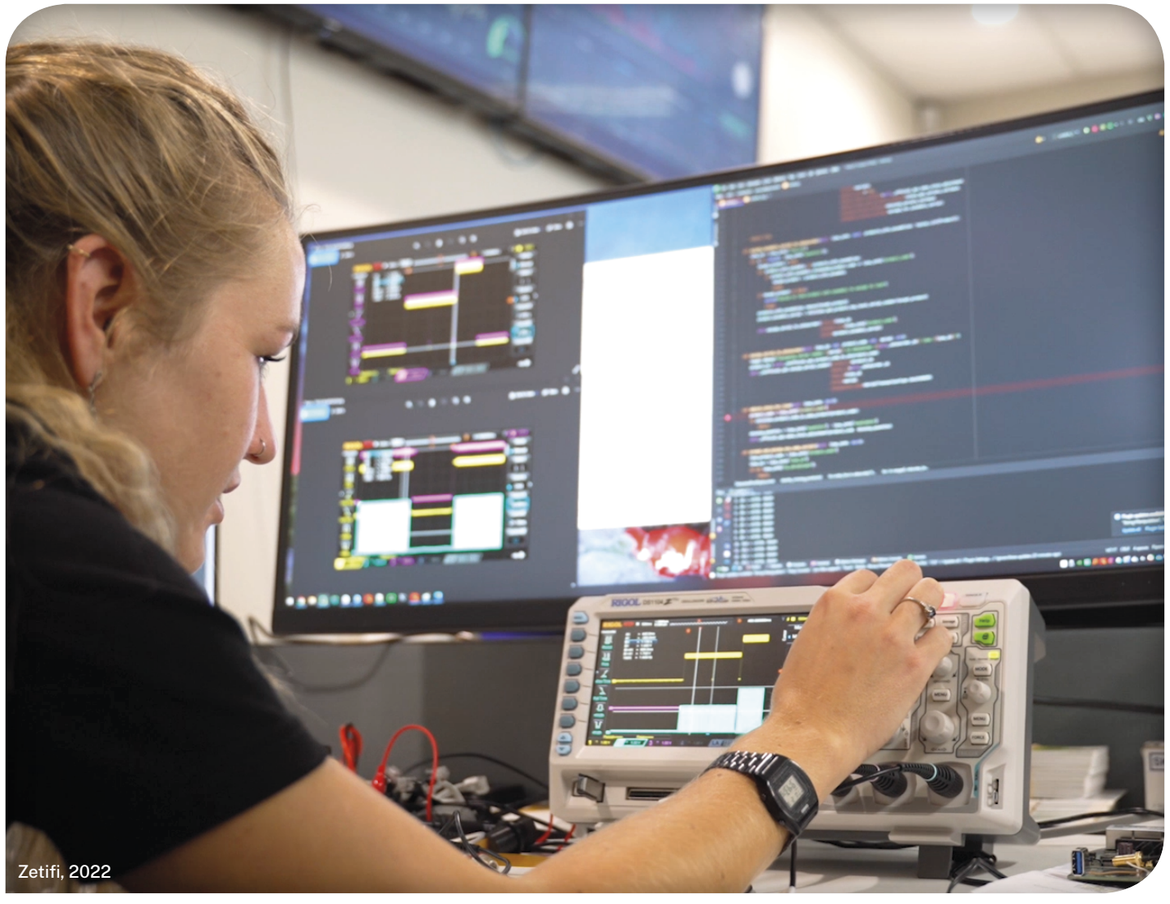
The PSF provides funding support through a competitive process to individuals, companies, research institutes and universities to take local innovations to market.

Organisation	Device/System	Description	Year
Ginigai	Artificial Intelligence Driven Fire Prediction and Detection System	Ginigai's technology uses AI and radio sensing to provide real-time monitoring and hazard detection by analysing changes in Wi-Fi and radio signals. This system can detect fires, moving objects and hazardous gases, and it pinpoints their exact locations for quicker responses.	2024
Funding Amount: $1,145,605		**Contact:** Aruna Seneviratne, 0439 969 066, aruna@envision-sys.com	
Lab 360 Solar	Quality Assessment of Solar Farms – Daytime Photoluminescence Imaging from Aerial Drones	Lab 360 Solar's core technology allows daylight photoluminescence (DPL) imaging during the day and from aerial drones, making it a more practical and cost-effective solution in comparison to existing methods.	2024
Funding Amount: $676,120		**Contact:** Thorsten Trupke, 0415 827 131, thorsten.trupke@lab360solar.com	
Microtau	Shark-skin Drag-reducting Aviation Adhesive Film	MicroTau's riblet film is a drag-reducing adhesive film with microstructured surface derived from the skin of fast swimming sharks. The microscopic patterning reduces friction drag in turbulent flow, resulting in efficiency gains of up to 4% with commensurate reductions in CO_2 emissions.	2024
Funding Amount: $1,528,123		**Contact:** Duncan Bell, 0432 614 423, duncan@microtau.com.au	
Syenta	Next-Gen Chip Fabrication: High Speed Additive Manufacturing of Advanced Packaging	Syenta has developed a game-changing new method to additively fabricate electronics, called Localised Electrochemical Modelling (LEM) which is a significant breakthrough in semiconductor fabrication, simplifying production and significantly reducing costs.	2024
Funding Amount: $2,000,000		**Contact:** Ben Wilkinson, 0416 705 535, ben@syenta.com	

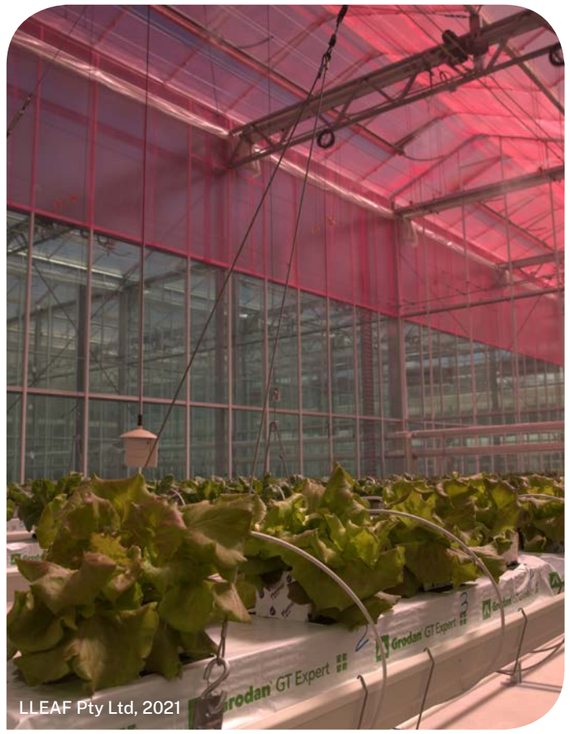


Syenta, 2024

Company	Device/System	Description	Year
Hysata Pty Ltd	Next-Generation Water Electrolyser	The electrolyser, now with an optimised membrane component, will deliver the world's lowest cost green hydrogen with increased output.	2022
Funding Amount: $1,000,000		**Contact:** Paul Barrett (CEO), 0413 991 322, paul.barrett@hysata.com	
SiteHive	Real-time Environmental Management	SiteHive has developed a digital, multi-sensor monitor that allows them to make quick, confident decisions from wherever they are, and proactively prevent potential environmental incidents occurring.	2022
Funding Amount: $1,120,000		**Contact:** Ben Cooper-Woolley (Co-Founder), 0403 569 818, ben@sitehive.co	
The Yield Technology Solutions (acquired by Yamaha Agriculture, Inc in 2025)	Agrifood Optimisation Platform	The Yield's 'Digital Playbooks' provide land managers with on-farm yield productions and recommendations using AI based on real weather data and the agronomical needs of crops, reducing the impacts of uncertainty created by weather on food waste across the entire food supply chain.	2022
Funding Amount: $1,780,000		**Contact:** Ros Harvey (Founder & CEO), 0409 348 264/+1 415 653 2664 (US), ros.harvey@theyield.com	
Zetifi	ZetiLink (Intelligent RF Platform for connected and autonomous vehicles)	ZetiLink is a new platform which uses vehicular radiofrequency (RF) technology and machine learning to actively and intelligently determine the optimal configuration for a vehicle.	2022
Funding Amount: $1,100,000		**Contact:** Dan Winson (Founder & CEO), 0410 351 270, dan@zetifi.com	



Zetifi, 2022



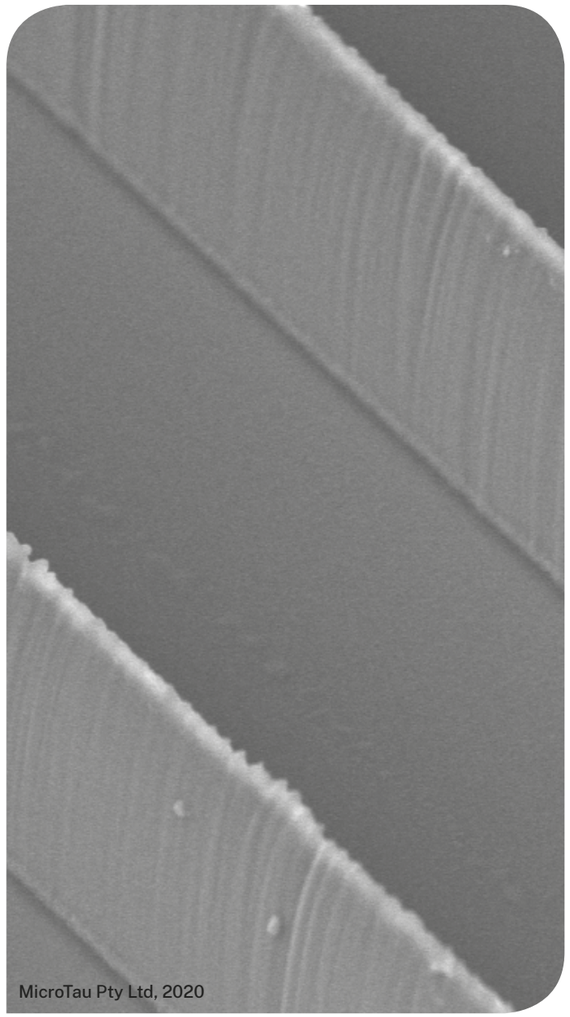
LLEAF Pty Ltd, 2021

Sensortine Pty Ltd, 2021

Company	Device/System	Description	Year
Defy-Hi Robotics	The BEAR (Building Envelope Access Robot)	The BEAR robotic system is designed to do dangerous, dull and dirty work of cleaning and inspecting high-rise buildings safely.	2021
Funding Amount: $800,000		**Contact:** Dr Abbie Widin (Co-Founder), 0407 210 693, abbiew@defyhi.com	
Azaneo/ Growave	Series Wave One	Transforming weed control for farmers, through a modular boom that integrates with any tractor, offering cost-effective and weather-agnostic weed management.	2021
Funding Amount: $533,000		**Contact:** Liam Hescock (Founder & CEO), 0428 634 908, liam@azaneo.com	
Hullbot Pty Ltd	The Hullbot One System	The Hullbot One System performs a diverse range of tasks include daily grooming of hulls, 4D inspections and surveys of underwater structures and environmental management.	2021
Funding Amount: $ 1,058,435		**Contact:** Tom Loefler (CEO), 0402 810 667, tom@hullbot.com	
Hysata Pty Ltd	Next-Generation Water Electrolyser	Hysata is developing a new type of electrolyser that promises to overcome the limitations of existing electrolysers and deliver the world's lowest cost green hydrogen.	2021
Funding Amount: $500,000		**Contact:** Dr Gerry Swiegers (CTO), 0414 338 634, gerry.swiegers@hysata.com	
LLEAF Pty Ltd	LLEAF Technology	LLEAF is developing new agricultural film that optimises the use of one of our biggest natural resources, sunlight, to enhance plant growth.	2021
Funding Amount: $283,480		**Contact:** Chris Wilkins (CEO), 0492 815 067, chris.wilkins@lleaf.com.au	
Roobuck Pty Ltd	Long-Range High-Rate Wi-Fi System	Roobuck and The University of Sydney are collaborating to commercialise the world's first long-range high-rate WiFi system compatible with conventional WiFi devices, increasing both productivity and safety.	2021
Funding Amount: $800,000		**Contact:** Henry Gong (Co-Founder & CEO), 0431 793 535, henryg@roobuck.com.au	
Sensortine Pty Ltd trading as MPT AgTech	MPT AgTech 'Smart Seeder'	The MPT AgTech 'Smart Seeder' integrates soil moisture sensing technology into a self-adjusting seeder to accurately manage seed placement.	2021
Funding Amount: $703,590		**Contact:** David Finlay (Founder & CEO), 0417 920 803, david@moistureplant.com	

Company	Device/System	Description	Year
BioScout	BioScout Automated Airborne Disease Tracking System	An autonomous air sampling unit with an analytic dashboard that can reduce crop disease and damage, increasing yield, by providing farmers with real-time data about the identity, density and location of airborne pathogens in a paddock.	2020
Funding Amount: $627,000		**Contact:** Lewis Collins (CEO), 0401 372 535, lewis@bioscout.com.au	
MicroTau Pty Ltd	Direct Contactless Microfabrication (DCM) Printer	Riblet microstructures inspired by shark skin that can be applied to surfaces such as air and marine vehicles for drag-reduction, reducing fuel, cost and CO_2 emissions.	2020
Funding Amount: $980,325		**Contact:** Henry Bilinsky (Founder & CEO), 0402 738 842, henry@microtau.com.au	
Quasar Satellite Technologies	Phased Array Satellite Ground Station as a Service	The phased array satellite communications ground station will be able to communicate with many spacecraft simultaneously, revolutionising the existing service model of one spacecraft at a time per ground station.	2020
Funding Amount: $1,921,675		**Contact:** Dr Ilana Feain (Co-CEO), 0411 639 299	
Zetifi	ZetiCell and ZetiRover	The ZetiCell and ZetiRover provide long range, high speed and reliable connectivity for voice calls and internet access in mobile blackspot locations and/or rural and remote communities.	2020
Funding Amount: $1,471,000		**Contact:** Dan Winson (Founder & CEO), 0410 351 270, dan@zetifi.com	

Zetifi, 2020


MicroTau Pty Ltd, 2020

Carbonix, 2019

Company	Device/System	Description	Year
Carbonix	Domani (25kg Powered Lift Drone)	Australia's first heavy-lifting, long-range powered-lift 'small' fixed wing drone. The Domani will be accessible to the general market for Australian businesses and represent a significant innovation in the global market.	2019
Funding Amount: $1,473,000		**Contact:** Philip van der Burg (CEO), 0416 559 052, philip@carbonix.com.au	
Hone	HoneLab and AI Platform	A platform acting as a chemistry lab, HoneLab allows winemakers to make instant decisions about their vintage without having to send the sample to a lab.	2019
Funding Amount: $837,000		**Contact:** Mitchell Reece (Financial Controller), 0425 268 496, mitchell.reece@honeag.com	
NextOre Pty Ltd	Magnetic Resonance Analyser	NextOre's magnetic resonance (MR) analysers are sophisticated devices that use bulk ore sorting to produce real-time, accurate measurements of metal concentration in ore while significantly reducing the amount of resources used downstream.	2019
Funding Amount: $1,070,000		**Contact:** Chris Beal, 0466 563 122, chris.beal@nextore.com.au	
The University of Newcastle	Hydro Harvester: A Novel Device for Atmospheric Water Generation Using Solar Thermal Energy and/or Waste Heat	A simple, low-cost device enabling the production of water from air, significantly reducing the cost per litre.	2019
Funding Amount: $330,000		**Contact:** Prof Behdad Moghtaderi, 02 4033 9062, behdad.moghtaderi@newcastle.edu.au	
UNSW Sydney's SMaRT Centre	SMaRT Microfactory Recycled Glass Panel Line	Reform waste materials into value-added products such as ceramic-based panels for use in the built environment.	2019
Funding Amount: $790,000		**Contact:** Anirban Ghose (Head of Microfactories), 02 9065 6413, anirban.ghose@unsw.edu.au	

Quantum Computing Commercialisation Fund

The NSW Government has strategically invested in a number of initiatives to support the formation of a global quantum ecosystem in NSW, showing thought leadership for the sector including investment in research, infrastructure and skills development.

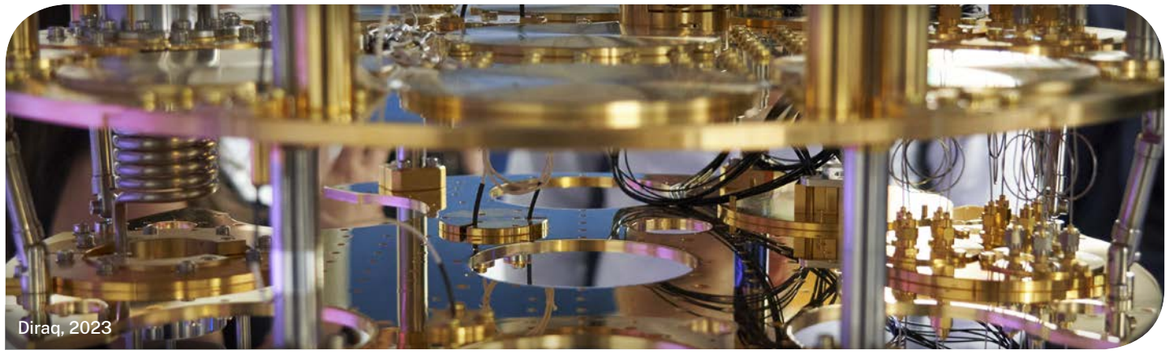
NSW possesses the full complement of quantum computing capabilities, from theory and software to hardware, and is home to one of the largest cohorts of quantum talent internationally.

Quantum computing has been identified under the *NSW 20-Year R&D Roadmap* as a high-value sector where NSW has a competitive advantage.

The NSW Quantum Computing Commercialisation Fund (QCCF) was a $7 million, single round, competitive technology development and commercialisation program focused on quantum computing funded by the NSW Government.

The QCCF has now concluded.

Company	Device/System	Description	Year
Diraq	Cloud-Accessible Silicon Quantum Processor	Advance towards commercialisation a 10-qubit silicon processor over a three-year period, supporting the company's overall mission to bring an "ultra-powerful quantum computers into existence".	2023
Funding Amount: $3,004,551		**Contact:** Prof Andrew Dzurak (Founder & CEO), 0432 405 434, andrew@diraq.com	
Q-CTRL	Delivering value to financial services through hybrid quantum computing	A hybrid quantum computing software as a service solution for the financial sector, helping to solve high-value optimisation problems by neutralising errors prevalent in available hybrid quantum computers.	2023
Funding Amount: $2,342,202		**Contact:** Prof Michael Biercuk (Founder & CEO), michael.biercuk@sydney.edu.au	
Quantum Brilliance	Qristal Emulator	A software package that runs on regular classical computers and provides realistic emulation of quantum hardware, allowing users to design quantum algorithms that solve computational problems using the inherent properties of quantum systems (e.g. entanglement).	2023
Funding Amount: $1,445,000		**Contact:** Dr Sam Butler (Public Sector Development Lead), 0400 172 172, sam.butler@quantum-brilliance.com	



Diraq, 2023

Small Business Innovation & Research Program

The Small Business Innovation & Research (SBIR) program is a competitive phased grants program. The SBIR program involves NSW Government agencies posing challenges they are not able to adequately address with existing approaches or commercially available technologies. NSW small and medium-sized enterprises (SMEs) apply to the SBIR program with their proposed solution. Participating SMEs receive a grant to work with the agency to solve the challenge. At the end of the SBIR program, agencies are encouraged to pilot the technology at scale and consider procurement.

Company	Challenge	Description	Year
Advitech	Waste Recovery and Management Challenge	Modular smart bins that use an AI system to sort waste, provide data and analytics to optimise waste streams, and improve waste collections logistics.	2024
Funding Amount: $750,000		**Contact:** Glenn Platt (Executive Director), glenn.platt@emergentgroup.com.au	
Cultural Pulse Tech Group	Cultural and Linguistic Diversity Services Challenge	A Voice-to-text transcription, translation and AI machine learning service that improves multicultural patient experiences during antenatal visits by offering in language support.	2024
Funding Amount: $750,000		**Contact:** Reg Raghavan (CEO), reg@culturalpulse.com.au	
Eco Shield Systems	Urban Heat Island Challenge	Porous vertical greening systems to mitigate urban heat and increase biodiversity.	2024
Funding Amount: $735,067		**Contact:** Daniel Griffin (Director), daniel@ecoshieldsystems.com	
Rosella St	Recycled Content Verification Challenge	A Digital Product Passport to support purchasing decisions on products containing recycled material and provide links to product directories or purchasing platforms.	2024
Funding Amount: $350,000		**Contact:** Mick Fritschy (Co-Founder & Director), hey@rosellastreet.com	
Hi-Vis	School Zones Alerting System Challenge	An edge controller with the capacity to retrofit with the School Zones Alerting System, offering a centralised control system, and analytics to improve safety in school zones.	2024
Funding Amount: $748,556		**Contact:** Luke Sasse (LED Product Manager), lukesasse@hivis.com	
Intelligent System Design	Biosecurity Surveillance Challenge	A mobile application equipped with AI to harness citizen surveillance by analysing submitted images to identify exotic pests.	2024
Funding Amount: $750,000		**Contact:** Julian van den Berg (CEO), julian@intelligentsystemdesign.com.au	
Future Village (Previously Plantabox)	Urban Heat Island Challenge	A removable, modular garden system to mitigate urban heat and provide a flexible system for urban greening.	2024
Funding Amount: $492,942		**Contact:** Ben Perry (Design Director), ben@plantabox.com.au	
QBL Media	Cultural and Linguistic Diversity Services Challenge	Voice-to-text transcription, translation and analysis software to facilitate real time multi-language communication during antenatal visits and the multicultural patient experience.	2024
Funding Amount: $749,883		**Contact:** Tat Banerjee (MD), tbanerjee@videotranslator.ai	

Small Business Innovation & Research Program continued

Company	Challenge	Description	Year
Tensile Constructions	Urban Heat Island Challenge	A Modular cooling system designed to mitigate urban heat by creating a green solution utilising plant shade, transpiration cooling, and ceramic coated steel to shade car spaces.	2024
Funding Amount: $120,000		**Contact:** Peter Bottero (MD), pbottero@tensile.com.au	
3rd Axis	PPE Challenge	Patented 3D-printed ceramic extrusion technology to recycle plastic waste such as PPE into high value filament cord used as feedstock in 3D printing.	2021
Funding Amount: $1,000,000		**Contact:** Ashish Jain (Director), 0458 557 517, ash@3rdaxis.com.au	
Advanced Navigation	Hyperlocal Navigation Challenge	Advanced Navigation's technology provides accurate location information within NSW transport hubs for users with vision impairments.	2021
Funding Amount: $1,000,000		**Contact:** Christopher Shaw (CEO), 02 0900 3800, chris.shaw@advancednavigation.com	
AusAir	PPE Challenge	A range of biodegradable surgical respirators, masks and gowns to address excessive waste from discarded PPE.	2021
Funding Amount: $882,865		**Contact:** Isaac Honor (Director), 0404 433 859, isaac@ausmark.com	
BindiMaps	Hyperlocal Navigation Challenge	Provides wayfinding and navigation services in complicated indoor and outdoor spaces for users with disabilities.	2021
Funding Amount: $1,000,000		**Contact:** Dr Anna Wright (Co-Founder & CEO), 0412 006 427, anna@bindimaps.com	
Biodiversity Monitoring Services	Koala Count Challenge	Novel, bio-inspired acoustic sensing technology that will be used to create a more active, targeted and efficient monitoring device for koala calls.	2021
Funding Amount: $999,940		**Contact:** Andrew Lothian (Director & Principal Ecologist), 0421 841 726, andrew.lothian@biodiversitymonitoring.com.au	
Infinite Water	Water Purification Challenge	A water recycling system which removes plastic microfibres from laundry wastewater.	2021
Funding Amount: $971,227			
Innovations for Humanity	Connectivity Challenge	A low-cost user terminal antenna system that will provide high data rate connectivity from a range of current and emerging satellite constellations.	2021
Funding Amount: $1,000,000		**Contact:** Karu Esselle (Director), 0423 034 302, karu.esselle@uts.ed.au	
Ninox Robotics	Koala Count Challenge	Long-range drones with advanced thermal imaging cameras to accurately monitor koalas over large and previously inaccessible areas across the state.	2021
Funding Amount: $980,350		**Contact:** Marcus Ehrlich (MD), 0408 991 563, marcus.ehrlich@ninox-robotics.com	
PEGRAS	Water Purification Challenge	PEGRAS provides at-the-source treatment of sewage from industrial processes. It traps nano and microplastics and other suspended particles.	2021
Funding Amount: $1,000,000		**Contact:** Ian Byrne (Director), 0419 876 416, ian.byrne@pegras.com	
Zetifi	Connectivity Challenge	A suite of solar-powered wireless network devices and systems that use long range Wi-Fi to provide coverage in low population density areas.	2021
Funding Amount: $997,500		**Contact:** Dan Winson (Founder & CEO), 0410 351 270, dan@zetifi.com	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