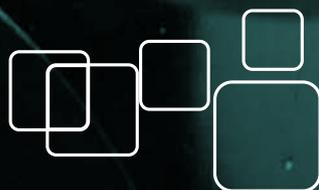


FIVE UNIVERSITIES, ONE APPROACH TO IP

Collaborate with the ATN
to bring ideas to life.



**AUSTRALIAN
TECHNOLOGY
NETWORK**
OF UNIVERSITIES

ATN.EDU.AU/IP

In an Australian first, the Australian Technology Network of Universities (ATN) have united to take a standardised approach to Intellectual Property (IP).

The ATN's national approach actively **promotes greater commercialisation of university research** and will **increase collaboration** between industry partners and researchers from our five members: QUT, University of Technology Sydney, RMIT University, University of South Australia and Curtin University.

Our seven principles are the basis on which ATN universities operate when it comes to doing business with industry.

Core to the ATN approach is **creating new opportunities and partnerships to generate new innovations and jobs** that will increase social and societal wellbeing, and secure Australia's future prosperity and economic growth.

We're making it easier for industry to work with our researchers and staff by **reducing the barriers** and complexities when it comes to commercialising research.

Our approach is **pragmatic, flexible and agile** and respects the tight timeframes and unique requirements of individual businesses.

ATN IP Principles

The ATN universities' approach to managing intellectual property is based on the following principles:

1

We actively encourage students and staff to undertake research that is relevant to challenges faced by society and in partnership with industry, government and community groups.

2

As guided by our industry partners, we encourage them to own and take the lead in commercialisation of intellectual property generated from industry-funded research when they are best placed to do so.

3

Where access to university owned or jointly owned IP is necessary for commercialisation we support access to the IP based on fair and equitable terms, in a timely manner.

4

Our interactions with industry will be governed by a transparent, flexible and user-friendly system that supports and encourages engagement using a range of IP models.

5

Each university will make public its Intellectual Property Policies and Standard Commercial Agreement templates, to provide a simple and transparent framework.

6

We actively encourage and promote an entrepreneurial culture for our staff and students. This includes a system of support to facilitate the creation of new ventures where our staff and students are appropriately involved.

7

All partnerships and resultant commercial agreements will be developed and negotiated in a prompt manner and in keeping with these core principles.



UTS gives a step up for innovation in disability support

UTS, Mobility 2000, Northcott Innovation

Researchers from the UTS Centre for Autonomous Systems have collaborated with Mobility 2000 to develop a step-climbing attachment for two-wheel drive powered wheelchairs, enabling users to navigate kerbs and single steps without needing to buy an entirely new wheelchair.

This technology makes a significant difference to more than 17,000 Australians who rely on powered wheelchairs to move around, enabling them to more easily navigate public streets and buildings.

UTS provided Mobility 2000 with an exclusive license to the university's share of IP for free through Easy Access IP. This enabled Mobility 2000 to develop the technology into a commercial product in collaboration with Northcott, a leading disabilities service in NSW and the ACT.

Easy Access IP makes it simpler for innovations generated by university research to be commercialised by industry. By removing often lengthy and costly negotiations, it reduces the barriers to internal investment using quick and simple agreements.

"The Easy Access IP licence represents a really positive outcome for all parties. It allows us to better forge a relationship with the university such that Mobility 2000 gets to freely use the university's share of IP, with a view to building an ongoing research and development relationship, which is exactly what we've seen happen already," says Dr Rob Silberstein, Chairman of Mobility 2000's board.

Northcott launched a spin-off company called Northcott Innovation, who took over the project and the license from Mobility 2000 in order to put the necessary resources behind the project. UTS is a foundation partner in Northcott Innovation alongside the Commonwealth Bank and patent and trademark legal firm, FB Rice.

"UTS have been progressive in their approach to IP, seeing projects to fruition has trumped dogmatic ownership rights. UTS' Easy Access IP agreement has given Northcott the opportunity and commercial incentive to exploit the IP rights of our project. The best outcomes have come when all parties can agree on the tasks required to balance academic R&D outcomes with product development," says Northcott Innovation Executive Director Liz Forsyth.

In 2015, Northcott Innovations moved into the UTS Industry Hub, which offers organisations the chance to explore opportunities with research staff and students by spending an extended period of time on campus.

"We are excited to explore innovative ways to bring inclusiveness to people with disabilities and will be accessing expertise from across UTS, ranging from the application of rapid prototyping and advanced manufacturing to personalise disability aids, through to novel uses of social media and simulation technologies, as well as exploring the broader societal impact of disabilities...the opportunities are endless," says Ms Forsyth.

In addition to more traditional licensing approaches and investment opportunities, UTS aims to have an ever-increasing portfolio of Easy Access IP opportunities available for license.

The UTS/Northcott partnership is an exemplar of IP Principles 1, 2, 4, 6 and 7, highlighting how a flexible approach to IP delivers real-world impact by bringing innovative solutions to the market to create a more inclusive society, and in the process change the lives of many thousands of Australians.

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LIZ FORSYTH, NORTHCOTT INNOVATION EXECUTIVE DIRECTOR



DR ROB SILBERSTEIN FROM NORTHCOTT INNOVATION DEMONSTRATING THE STEP CLIMBER. PICTURE COURTESY NORTHCOTT INNOVATION

World's first plastic automotive mirror

University of South Australia, SMR Automotive

Researchers from University of South Australia's Future Industries Institute have delivered the world's first plastic car mirror by pioneering highly sophisticated innovations in thin film coatings.

Through clever materials engineering, the plastic mirror outperforms glass in terms of abrasion resistance and environmental sustainability. The mirror is also shatter proof, lighter and safer than conventional glass mirrors, and meets global automotive standards.

Researchers Drew Evans, Peter Murphy and Colin Hall developed the innovative multi-layer coating design which includes a reflective mirror layer, an abrasion resistant layer and a capping layer to prevent environmental damage. The layers combined, are less than one tenth the thickness of a human hair.

This technology has been transferred to industry partner SMR Automotive and to date, more than 1.5 million mirrors have been produced and exported from Adelaide by SMR Automotive to the United States.

An integrated, across product design, development, and scale-up facilitated a faster route to commercialisation – sharing expertise and capacity for effective troubleshooting and design optimisation, with SMR owning all rights to the IP and managing the commercialisation process.

The plastic mirror is currently being manufactured in South Australia and exported to global car giant, Ford. This multi-million dollar research and development project has progressed through to industry scale-up and commercialisation.

The entire mirror assembly, encompassing the mirror housing, actuator and reflective element is

reduced in mass by around 15% by switching to plastic. This reduction in weight has a positive impact on driving efficiency, equating up to 16,864 litres of fuel saving per annum per 100,000 vehicles. This equates to a reduction in CO2 emissions of 45 tonnes. If applied to SMR Automotive's current and future market share through until 2017, this will equate to a reduction in greenhouse gas emissions of over 400,000 tonnes.

Collaboration between UniSA and SMR Automotive is ongoing and the benefits continue to accumulate. So integrated is the partnership, and clear is the value that these two



ASSOCIATE PROFESSOR DREW EVANS,
UNIVERSITY OF SOUTH AUSTRALIA.

stakeholders deliver together that they have recently been granted direct IP rights to developments they create together for the automotive sector through Federal Government's CRC program.

The partnership between SMR Automotive and UniSA spans 12 years, and has delivered remarkable achievements through a combination of deep respect, dedication to the needs of both partners, a clear vision and being agile and adaptable, showcasing IP Principles 1, 2, 3, 4, 6 and 7 in action.

Revolutionary hamstring invention set to protect elite sports stars around the world

QUT, QUTbluebox, Vald Performance

Hamstring injuries can keep experienced star players away from their game and cost professional sporting clubs millions of dollars annually. Now elite sporting stars can assess and reduce their risk of a hamstring injury, thanks to a breakthrough made by QUT researchers. The discovery could be worth a fortune to football codes, with hamstring strain injuries accounting for most non-contact injuries in Australian rules football, soccer and rugby union and a host of other running-based sports.

QUT researcher Dr Anthony Shield and former QUT PhD student, Dr David Opar developed a concept to provide real-time feedback on individual muscle strength during a common hamstring exercise -

the Nordic hamstring curl. This enables athletes to measure hamstring muscle strength independently across both limbs and the data can be provided to sports physiotherapists and other professionals to monitor strength imbalances, track rehabilitation, assess injury risk and guide training to prevent future hamstring injury.

The QUT research team supported by qutbluebox, the technology transfer company of QUT, engaged with elite sports teams in AFL, NRL, English Premier League and American football to test prototypes of the NordBord Hamstring Testing System, testing hundreds of players. This amassed a wealth of positive data and built critical industry relationships. As part of qutbluebox's

program to accelerate innovation, qutbluebox assisted a team of young entrepreneurs including key QUT graduates to form Vald Performance Pty Ltd. Vald Performance were awarded an Accelerating Commercialisation Grant of nearly \$500,000 and refined the prototype into a market-ready system. The NordBord Hamstring Testing System was officially launched in January 2016 and is already in use by over 75 elite sports clubs across the globe.

The successful relationship between QUT, qutbluebox, Vald Performance and elite sports clubs is an example that demonstrates high quality innovation, a great team and a strong focus on industry engagement showcasing IP principles 1, 2, 3, 4, 6 and 7.



DR ANTHONY SHIELD AND AN ATHLETE DEMONSTRATE THE NORDBORD WHICH MEASURES THE STRENGTH OF ATHLETES' HAMSTRINGS AND IS SET TO CHANGE THE FACE OF ELITE SPORTS SCIENCE.

University spin-out making a global impact

Curtin University, Scanalyse Pty Ltd and Outotec

Scanalyse Pty Ltd was established to monitor the wear and tear in giant rock crushers and grinding mills.

Based on Curtin research, the Scanalyse technologies, MillMapper (for grinding mill monitoring) and CrusherMapper (for crusher monitoring) combines laser scanning technology with an integrated software suite to provide accurate measurement and modelling of the condition of the machines.

Giant crushers and grinding mills used to process minerals can typically consume 60% of a mine's electricity. However, when their grinders wear out, it can cost the mine \$100,000 an hour in downtime. Prior to this technology, operators had to climb into the giant machines to measure their performance and level of wear, a process that was both dangerous and unreliable.

Scanalyse services are now

highly regarded in the minerals processing industry in Australia and other mining countries, enabling the operators to optimise their asset performance. The company expanded globally and had operations in Australia, Brazil, Chile and the United States.

The company was acquired earlier in 2013 by Finnish mining giant Outotec, in recognition of the technology's immense potential in the global market.

Following the acquisition, Scanalyse and Outotec won the 2013 Rio Tinto Eureka prize for Commercialisation of Innovation for their MillMapper project.

The Scanalyse example illustrates a successful path from research to implementation in a large-scale commercial environment and demonstrates IP Principles 1, 3, 4, 6 and 7.

“There's a lot of very good science that goes on in universities and a lot of that science can be turned into products. It's not a process which happens overnight. You have to be prepared to have a reasonably long term relationship with the university so both parties get to know each other and understand what they can bring to the table.”

PETER CLARKE, FORMER CEO, SCANALYSE PTY LTD

Revolutionary car seat cover saves lives on our roads

RMIT University and Who-Rae Australia Ltd

Researchers from RMIT University have collaborated with Who-Rae Australia to potentially reduce the number of deaths and injuries seen on our roads through the development of new seat cover technology.

LaserDeploy removable seat covers replace the company's traditional seat covers with a much safer option for drivers who own vehicles equipped with side airbags.

Current car seat covers use stitched tear-seam technology which conceals the side torso airbag, and can result in the failure of the airbag's deployment. It was vital that the new seat covers allowed for reliable and predictable deployment of side airbags.

Through a revolutionary new process using laser ablation technology, RMIT researchers were able to create a seat cover gusset that facilitates deployment of the side-torso airbag in the event of a collision, allowing the side panel of the seat cover to separate on impact, allowing the airbag to deploy safely and easily.

During the manufacturing process, every batch is subjected to extreme temperature conditions and burst tested in accordance to an industry-accepted standard, ensuring customers are purchasing a product they can trust.

RMIT researchers were actively involved in the entire commercialisation process from the procurement of machines, establishing production

process, quality assurance protocols and training of the factory workers in China.

Since the official launch in 2015, the company has since patent protected the IP and has opened a new manufacturing facility that is dedicated to laser ablation. LaserDeploy has expanded internationally and is now selling to major retailers in the USA, Canada and Australia.

RMIT's partnership with Who-Rae is an example of powerful research that makes a significant difference to our community by reducing the death toll and keeping people safer on our roads. The relationship is a good example of ATN's IP Principles 1, 2, 3, 4 and 7.

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