

E P O n e n t

Showcasing Innovation, Science & Technology in Tasmania

Software company wins Innovation Grant

Innovative Tasmanian ICT company OnPix recently won a Tasmanian Innovations Program grant to further develop a unique software system that will be used by Konica Minolta in the United Kingdom as part of a major international contract.

RealPix is a software system that enables the public to order real prints of their digital images online through their local photo retail outlet.

The deal with Konica Minolta United Kingdom will see the RealPix Central system introduced as its branded online photo ordering system - photos@konicaminolta. Initially it will be introduced in 100 stores throughout the United Kingdom, increasing to around 250 in three years.

It is the third major deal the company has signed in the past 18 months - the first with Camera House, Australia's largest camera and photo processing retail chain with 100 stores nationwide and Konica Minolta Photo Imaging Australia who provide OnPix with access to more than 150 stores.

The deals have seen OnPix snare 70 percent of the digital retail photolab market in Australia, and is a dominant player in New Zealand.

The \$147,000 Innovations grant will be used to take the RealPix concept a step further to develop ProPix - a fully integrated, digital workflow system for the production of high quality prints for professional and



Andrew Cassidy CEO.

event photographers and photo labs. It will accelerate the commercialisation process by extending product development and market access.

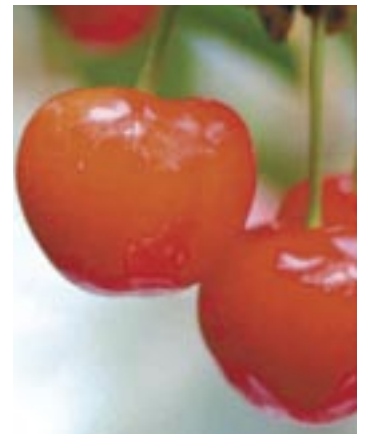
ProPix will assist professionals such as school photographers, event organisers, and commercial photographers with bulk management of digital images; processing and printing; fast upload; ordering capabilities from remote locations; and on-line storage.

Case study: Reid Fruits - Japanese Cherries

With a family history of almost 150 years of growing apples, what turned Tim Reid's thoughts to cherries - and specialised cherry growing at that?

Tim has been active in the apple industry for many years, and is currently president of Fruit Growers Tasmania. He says that Tasmania faces stiff competition for apple markets from countries with lower production costs and overlapping sales periods, so he considered diversifying into cherries because Tasmania had the right climate and growing conditions.

continues page 3



New funding program launched

Research and Development (R&D) is a major driver of industrial development and increased productivity, creating new and smarter industries using frontier technology and achieving global competitiveness.

The Tasmanian Government recognises that to grow and expand local industry

it is important to develop improved linkages between research institutes and industry. As a result, significant resources have been committed to help local firms develop these linkages. Assistance is made available through the Research Partnerships Program.

continues page 7

INSIDE

Innovation showcase 4

Case study - Tim Reid 1,3

Technical Edge - Allen Smith 2



Message from the Minister



Tasmania is experiencing a time of remarkable economic progress. Sound economic policies and the resourcefulness of our business people have led to real growth in the State's economy.

This edition of EXPOnent features a number of our innovative firms such as S.D Reid Holdings, OnPix and Technical Edge. They show just what can be done with a little innovation and a lot of determination.

But there are still sceptics who doubt the value of research and development. How can we prove to them that Tasmania's future prosperity depends on our ability to innovate?

The OECD has estimated that innovation accounts for 50 per cent of long-term economic growth in advanced industrial countries and is a critical determinant of enhanced productivity and competitive advantage. The OECD also found that returns on business expenditure on research and development are high, with those effects spilling over to the economy more generally.

Tasmania's investment in research and development through our research institutes is very high and our

science is held in high regard worldwide. Tasmanians conduct exciting research particularly in areas that complement our geographical, environmental and resource strengths. Unfortunately, our record on commercialisation and industry uptake has been poor.

Earlier this year I announced that the Tasmanian Government would create a pilot grants program to help cement industry collaboration with public sector research organisations. The Research Partnerships Program is now open and will provide three way matching grants of up to \$150,000 (industry:research:government). Details are available in this edition.

You will also read about National Science Week activities, progress on Tasmania's Innovation Showcase at the Queen Victoria Museum and Art Gallery and Tasmania's presence at the world's largest biotechnology exhibition, BIO 2005, in Philadelphia.

I hope you enjoy this edition of EXPOnent and, like me, look forward to receiving each new edition.



LARA GIDDINGS
Minister for Economic Development

International accolades for Tasmanian motorcycle innovation

A Tasmanian designed motorcycle foot peg was named Best New Product at the Dirt Rider Expo 2004 at Stoneleigh-Park in Britain providing valuable publicity for Devonport-based company Technical Edge Pty Ltd, which has been making Pivot Pegz since June 2000.

A record of more than 20,000 people attended the four-day expo, which is Europe's biggest off-road show, and these passionate motorcycle fans recognised Pivot Pegz as the best new product available.

Pivot Pegz are the world's first off-road foot pegs to incorporate a precisely tuned and spring loaded forward and backward pivoting action designed to move with the natural motion of the rider allowing a fast, smoother, and safer ride. Standard foot pegs slam into the boot, chewing out the sole. Pivot Pegz give extra control and most importantly reduce lap times.

Spurred by Managing Director Allen Smith's experience as an off-road biker, Technical Edge Pty Ltd is a prime example of a company that has developed an innovative idea in Tasmania and then taken it to the world market. They are currently exporting to Europe and the United States.

The Department of Economic Development has been able to assist Mr Smith over the past four years as he established the business, commercialised the product and moved into exporting. He has received mentoring, intellectual property and commercialisation assistance through the Tasmanian Innovations Program.



Allen Smith.
Photo: courtesy of The Examiner

Technical Edge is a great success story and the company looks destined to continue building its reputation and increasing its exports. However, Mr Smith is the first to admit that the road to success has not been easy and he is always willing to share his experiences and knowledge with other small companies wishing to pursue innovation excellence in the world market.

Case study: Reid Fruits (continued)

“There have been commercial cherry orchards in Tasmania since the 1960s, but in the last 10 years new varieties with greater resistance to rain damage, more suitable for our climate have led to increased plantings,” Tim says. There are now about 90 cherry farms, ranging from two or three hectares up to 60 hectares. Farmers are successful at growing high-quality fruit to achieve high prices, especially from overseas customers. “Our cherries are larger because of our long, cool summers, the flavour is more intense and the cherries are firm, with good shelf life.”

Annual production has grown from 300–500 tonnes about six or seven years ago, to 2000 tonnes in the 2004–2005 summer. “Tasmania could become Australia’s largest cherry-growing region in five years. Tasmania already exports around 800 tonnes to Taiwan each year and, in time, the market will expand to China, India (Tasmania’s biggest apple market) and other parts of Asia,” Tim says.

During visits to Japan in the 1990s, Tim noticed the popularity, and prices, of Japanese cherries. They are different from the ones Tasmanians are used to, having peach-coloured flesh, a delicate blush skin, and a sweet-sour flavour. Tim studied these cherries and their growing conditions for Tasmania’s potential for producing them to an acceptable standard for the discerning Japanese market.

Apart from working on the practicalities of growing and exporting these cherries, Tim also investigated the Japanese Government’s requirements for food safety and protection of their own produce and established ways of meeting stringent Japanese import regulations. To test the suitability of his Tasmanian farm for this product, he could import only four cuttings via a three-year Australian quarantine check. Over several years Tim has worked through a myriad of issues with the Japanese Government, Japanese businesses and numerous Australian Government departments. Industry bodies such as the Tasmanian Stone Fruit Association have also been supportive.

Tim’s family business has invested heavily in the plan. The Department of Economic Development has contributed \$100,000 over two years, and the Australian Government matched Reid Fruits’ investment of \$70,000 for research and development. Economic Development also shared the

cost of having a business plan prepared for the company and provided an Innovations Program grant for developing new hi-tech rain covers for the orchard. Tim has made frequent visits to Japan to help with embassy and trade negotiations, and to talk to growers and buyers. He estimates that the total cost so far has been about \$6,000,000.

All this effort has been to good effect. The family company now owns a 300-hectare farm at Plenty, in the Derwent Valley, where 43 ha are planted with Tasmanian cherries and in February 2005, access to the Japanese market was formally granted.

Tim is confident that the Japanese cherries grown here will find a ready market. He has access to almost 2,000 Japanese supermarkets and sees possibilities in the luxury gifts sections of department stores, where home-grown cherries already command premium prices.



Hi-tech rain covers developed for the orchards.



Tasmanian innovation on display

The Queen Victoria Museum and Art Gallery (QVMAG) have received a Tasmanian Innovations Program grant to help establish the Tasmanian Innovation Showcase.

Tasmania has an exciting history of innovation ranging from solutions to agricultural problems encountered in the early days of settlement through to innovative uses of contemporary technologies that are being pioneered by Tasmanians.

The Tasmanian Innovation Showcase will display examples of current Tasmanian innovation, together with case studies that illustrate crucial stages in the process of innovation. It will also exhibit highlights from Tasmania's impressive tradition of innovation.

The QVMAG has a long-standing interest in documenting and promoting Tasmanian innovation and has maintained an active interest in Tasmanian inventions, innovations and design.

The Tasmanian Innovations Showcase will enable the QVMAG to promote community awareness of the importance of innovation to the State and encourage further Tasmanian innovation.

Since 1999, the State Government has been driving the State's innovation by providing almost \$4 million in grants to Tasmanian companies through the Tasmanian Innovations Program.

The returns from this investment have been outstanding, for example, 17 Tasmanian companies drawing down a total of \$1.1 million since July 2002 have subsequently earned \$4.6 million in revenue - 84 per cent of these sales were made to markets outside the State. This represents more than \$3.50 of sales revenue for every \$1 of innovations investment.



Economic Development Minister Lara Giddings and museum director Chris Tassell. Photo: courtesy of The Examiner

Biotechnology - Tasmania - A state alive with opportunity

There is growing international interest in what Tasmania has to offer the global biotech market.

At a recent biotechnology conference and exhibition, BIO 2005, held in Philadelphia, US, in June 2005, delegates from around the globe expressed interest in Tasmania's capability in marine-related pharmaceutical and nutraceutical products and its unique organism collections.

This year, Tasmania was represented at the conference by a team of delegates that provided a sample of the State's expertise in many areas of the biotechnology industry.

Led by the Department of Economic Development, the team was made up of representatives from the Australian Antarctic Division, CSIRO Marine and Atmospheric Research, the University of Tasmania, the Antarctic Climate and Ecosystems Cooperative Research Centre and Marinova Pty Ltd.

The Tasmanian delegates found that several biotech-related organisations were interested in the business environment in Tasmania and in undertaking collaborative research.

Tasmania's relaxed lifestyle, temperate climate, remarkable landscapes, unique ecosystem and world-class marine and southern ocean science were also areas of interest.

Feedback from the conference suggests that Tasmania's pristine island status can enhance the development of the biotech industry.

In fact, the State's unique natural features and its 'clean green' image are factors that set it apart and provide unique opportunities in niche biotech markets.

It is hoped these initial enquiries will lead to some new developments in the State's biotech industry.

BIO 2005 attracted a crowd of more than 18,000, representing business, research and government organisations, operating in the biotech space.

The Tasmanian Government will again provide support towards a representative stand at BIO 2006. Any Tasmanian biotech related businesses who feel that representation at this conference would benefit their business, are urged to contact the Innovation Science and Technology Unit at the Department of Economic Development.



Dr Anthony Koutoulis, University of Tasmania, Wendy Spencer, Economic Development, Kellie Workman, Business ACT at BIO 2005 Philadelphia.

Market Ready participant's product has vision

A graduate of the Department of Economic Development's Market Ready Commercialisation Program, Greg Koennecke, has designed a portable retinal camera that could revolutionise eye examinations in Aboriginal communities and developing countries, saving many from blindness.

The retinal camera, which detects major eye diseases is rugged, easily operated and has been praised as "small enough to fit in the nosecone of a Cessna" by an eye specialist who flies to remote communities. The camera can be used without putting drops in the patients eyes.

Inspired by attending a meeting on blindness prevention where it was noted that a retinal camera for the developing world was needed, Mr Koennecke applied his experience working in optics to the cause.

For a retinal camera to be suitable to take out into the field it had to be small enough to fit into carry-on luggage and able to withstand shock and dust. The portable retinal camera meets all these requirements.

Experts agree that the portable retinal camera would be a boon in preventing blindness in remote and poor communities as it is highly portable, rugged and may be operated without special training. This means it doesn't need to be operated by a doctor or optometrist.

Information is stored on a disc that can be downloaded for immediate viewing of the image. This streamlined process enables detection of a variety of eye diseases, which if prevented early can delay and sometimes prevent blindness.

Mr Koennecke's creation has won the weekly award on the ABC's New Inventors program.

Mr Koennecke's involvement in the Market Ready Commercialisation Program has provided him with the skills to take his innovative idea to market.



Greg Koennecke, and his portable retinal camera.
Photo: courtesy of The Mercury

Intellectual Property

Lawyer Greg Geason delivers a workshop on intellectual property as part of the Market Ready Commercialisation Program.

The last 10 years has witnessed a substantial growth in awareness of "intellectual property" (IP). Despite this, very few businesses that rely on IP for their competitive advantage will have an in-house policy to deal with IP issues.

A properly formulated workplace intellectual property policy focuses on these issues and identifies matters which need to be addressed as businesses grow.

Development of an IP policy starts with conducting a basic audit of IP held. This will include identification of:

- IP used that belongs to others; for example confirming that appropriate software licences are held.
- IP that the business has developed including its brand; methods in which it engages to give itself a competitive advantage; manuals and plans that incorporate those methods; or equipment developed for use in the business.
- IP that the business has developed but that is dependent on IP belonging to others, and steps taken to secure its continued use.

Protection of IP is the next step. For example registering a business name that is a brand as a trademark. Brands build relationships with customers and it is critical to protect brands to secure the relationship. Once the necessary steps to protect IP is taken those items can properly be claimed as assets.

An audit can also assist identifying and remedying deficiencies in licensing agreements. The Business Software Association of Australia (BSAA) is active in pursuing licensing issues such as compliance. Neglecting this area can be costly, which many small businesses cannot afford.

Carrying out a basic audit reveals the work that needs to be done to secure a businesses competitive edge - a business future.

For further information on managing your intellectual property contact Business Point on 1800 440 026 or businesspoint@development.tas.gov.au

Gregory Geason
Lawyer, Registered Trade Marks Attorney
Page Seager Lawyers 2005

Tasmania's own new inventors

You've seen them on the ABC New Inventors television series, now read about our locally-developed innovations.

Water saving devices, flavoured whey beverages produced from cheese bi-products, lightweight portable hammock stands, human presence sensor devices and versatile housing solutions are only a few examples of innovations currently being developed by Tasmanian businesses.

The five innovations listed above are examples of the 30 local businesses that have recently graduated from the Market Ready Commercialisation Program in the last 12 months. Market Ready is a series of facilitated workshops that aim to increase the commercial success of Tasmanian innovations.

Innovators compete in a tough commercial environment with only a few businesses able to take one of the thousands of raw ideas generated nationally and make them a commercial reality. With only a handful of all innovations making it to national markets, many innovators face significant barriers.

These barriers include:

- inadequate skill sets or lack of commercialisation experience within the business
- lack of intellectual property protection
- over commitment of resources due to trying to address all potential opportunities rather than focusing on one
- lack of understanding of the end user's needs and the key reasons customers purchase
- scarce financial resources due to under estimating the costs involved in taking the product to market or slow market uptake of the product.

The Market Ready program aims to help innovators address these issues and help make their innovations a commercial reality. Many innovators start the journey but most never finish. For the few that do successfully make it to market, the rewards can be immense. For those who are not so fortunate, it is better to have started the journey, than to wonder... what if?

Following are some examples of recent Market Ready graduates and their projects.

Gray and Lindy Honeychurch from Watermiser Australia: Water saving device which automatically diverts the cold water initially in the hot water line, for recycling when the hot water tap is activated.

Giles Newstead from Mania Design: Versatile housing solutions using architectural designed, environmentally friendly housing kits with reduced construction time.

John Williams from TLC Training & IT Solutions: Process that enables worn vehicle joints to be restored, enabling them to be safely re-used.

Michael Parsons from PCT Remote Sensing Pty Ltd: Human presence sensor device designed to monitor the presence or absence of an individual in need of supervision in both domestic and residential aged care, predominantly for people suffering Alzheimer's disease.

Glen Naphthali from The Natural Oil Company: Specialty Cold Pressed Oils that are produced utilising waste and low value products from the horticultural industry.

These graduates attended the Market Ready programs that we held in Launceston and Campbell Town, with participants travelling from throughout the State to attend each program. The successful applicants received 10 days of free professional assistance, valued in excess of \$5,000.

The next round is scheduled to commence in February 2006. To avoid disappointment, please register your interest with the department for the next program.



Ian Rochfort, Hemp Hound Hors d'oeuvres at the Market Ready Graduation Day.

For more information on Market Ready, contact the Department of Economic Development's Business Point on **1800 440 026**, email innovations@development.tas.gov.au or visit www.development.tas.gov.au/innovate.html

BELIEVE IN YOUR IDEAS

Humidicrib

Invention: Infant Respirator (HUMIDICRIB), 1940s

Inventor: DR WILLIAM McINTYRE, LAUNCESTON

Launceston obstetrician Dr William McIntyre designed a prototype of a humidicrib that would provide a safe environment for sick or premature babies.

Dr McIntyre's design attracted international attention when reports on the invention were published in medical journals in 1944 and it was then used and further developed throughout the world.



New funding program launched (continued)

The Research Partnerships Program initiative will address the fundamental issue of Tasmania's low level of business expenditure on R&D. It will support the development of new innovative products, processes or services that have the potential to be commercialised. It will also support the adoption of a new technology by industry.

The Research Partnerships Program will seed viable collaboration between Tasmanian-based enterprises and local and other research institutes on a project basis. The maximum grant size is set at \$150,000 and requires matched funding from collaborators (1:1:1 Government: industry: research).

This program is being delivered by the Department of Economic Development's Innovation Science and Technology Unit. To apply for funding, it is necessary to contact a client manager at a regional office who will provide you with an application form to complete. Contact details for regional offices can be found at <http://www.development.tas.gov.au/devcontact.html>.

The assessment of applications to the Research Partnerships Program will be on a competitive basis. Applicants will need to meet eligibility criteria and will be assessed against the selection criteria and against other applicants on a state-wide basis.

As there is limited financial support available, applicants who can best meet the selection criteria will be better positioned than others to obtain program assistance. Applications that do meet the selection criteria are not guaranteed financial assistance.

For more information contact our Research Partnerships Program Project Officer at the Department of Economic Development.

Tel: 03 6233 5743

Fax: 03 6233 5800

GPO Box 646, Hobart TAS 7001

Website: www.development.tas.gov.au/innovate.html

Email: innovations@development.tas.gov.au

National Science Week

As part of National Science Week in Tasmania the Department of Economic Development in conjunction with the Tasmanian Science and Technology Council hosted "Weird Science Goes to Market" with Marc Abrahams, father of the Ig Nobel Prizes.

Each year the science humour magazine Annals of Improbable Research awards Ig Nobel Prizes to scientists, professors and ordinary folk globally for extraordinary research. Marc Abrahams talked about research, both probable and improbable that had made it to market.

Approximately 150 people from the research, business and government communities attended i-cubed network events featuring Marc Abrahams in Hobart and Launceston. Many more attended school visits and public lectures provided by Marc during his tour of Tasmania.

The Department of Economic Development also sponsored the Young Tassie Scientist program, which aims to raise awareness of the role undertaken by young scientists in a variety of scientific research activities in Tasmania.

The scientists participated in school visits, public lectures, science demonstrations, and a public exhibition of artworks inspired by the scientists' research.

Departmental officers also participated in the annual Science Meets Parliament event. The event, hosted by David Bartlett MHA, attracted much interest from parliamentarians across all parties and scientists from the University of Tasmania, CSIRO and the Australian Antarctic Division.



Marc Abrahams, father of the Ig Nobel Prizes.



Dr Graham Mitchell, Member, Tasmanian Innovations Advisory Board.

PROFILE

Dr Graham Mitchell

Dr Graham Mitchell AO was appointed to the Tasmanian Innovations Advisory Board in November 2003. Dr Mitchell is one of the four principals of Foursight Associates Pty Ltd, a Melbourne-based advisory service in science and technology.

He is a veterinary graduate and university gold medallist of the University of Sydney. At the Walter and Eliza Hall Institute of Medical Research (WEHI) he made discoveries in cellular immunology and obtained a PhD in 1969. After post-doctoral experience in California (Stanford), England (National Institute for Medical Research, Mill Hill) and Switzerland (Basel Institute for Immunology) he returned to Australia in 1973 and established a new program in the immunology of parasitism at WEHI. This program became a major component of the global effort to develop new tools for the control of parasitic diseases, and of the 'biotechnology revolution'. Mitchell was instrumental in establishing a long term program on the disease schistosomiasis in the Philippines.

In 1990 Mitchell was appointed director of the historic and prestigious Royal Melbourne Zoological Gardens where he introduced a number of new initiatives in local and regional conservation.

In 1993 he returned to biomedical research as Director of Research in the R&D Division of CSL Limited, Australia's largest developer, manufacturer and marketer of ethical human biologicals and veterinary products. He was responsible for identifying and assessing new opportunities for CSL, nurturing external research collaborations of the company, and the research component of the development of new products including vaccines.

His expertise extends over a wide range of science and technology. He has worked in many overseas countries and been involved with the World Health Organisation for many years. He is an author of more than 350 publications, has received numerous awards for scientific achievements and, in 1993, was appointed an Officer in the Order of Australia for services to science, in particular immunoparasitology.

In another government role, the principals of Foursight, Mitchell and his colleagues, Sir Gustav Nossal, Professor David Penington and Dr John Stocker, jointly act as Chief Scientist for the departments of Primary Industries (DPI) and Sustainability and Environment (DSE). He is a non-executive director of Antisense Therapeutics Limited, Compumedics Limited, AgVic Services Pty Ltd, the Geoffrey Gardiner Dairy Foundation and the WA Institute of Child Health Research.

Guidelines for assistance to Research Centres

The State Government, through the Department of Economic Development, has developed a policy that will guide funding and in-kind support for research centres throughout the State.

Minister for Economic Development Lara Giddings said that "The policy will ensure that there are clear criteria in place when requests for assistance are made to the Department of Economic Development".

"Tasmania's research sector can attract significant Australian Government and private investment."

"It also attracts highly skilled jobs, opportunities for industry participation and economic growth."

"We have some high profile and highly successful research centres doing some outstanding and ground breaking work here in Tasmania including the Menzies Research Institute, the Antarctic Climate and Ecosystems Cooperative Research Centre, and the University of Tasmania," Ms Giddings said.

Some of the criteria outlined in the policy to guide State Government assistance for supporting research centres include:

- The centre's activities must show clear economic benefit to Tasmania
- it must conduct core research that is closely aligned to the State's research priorities
- it must be applicable to Tasmania's existing and emerging high-potential industries
- it must have its headquarters in Tasmania or have significant Tasmanian-based activity
- it must have an underlining commitment to achieving commercial outcomes, with commercial objectives that fit with the principal economic goals of Tasmania *Together*; align with the key strategies of the Government's Industry Development Plan; and align with the goals of Tasmania's Science and Technology Policy and the Tasmanian Science and Technology Council Industry Plan.

The policy is available on the Department of Economic Development's website www.development.tas.gov.au. Proponents are encouraged to contact the department to initiate discussion at the earliest stage of bid development.

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