

ENGINEERING

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news bulletin



THE **Warren** CENTRE
FOR ADVANCED ENGINEERING

ISSUE 19 NOVEMBER 1999

SPECIAL ISSUE ON INNOVATION

INCUBATORS AS SUPPORT FOR EMERGING COMPANIES

There is a growing focus on incubators as playing a key role in enhancing the growth and success of new technology-based companies with initiatives underway in the Federal Departments of Industry, Science and Resources (DISR) and Communications Information Technology and the Arts (DoCITA).

The Warren Centre believes that there is a strong need for effective managerial, business and commercial experience to be provided through a highly networked and broadly-based organisation of mentors and advisors with ready access to financial support.

"We believe that there is scope for a national co-ordination role between providers of potential entrepreneurs and opportunities, providers of development and training, professional support services, sources of finance, and larger companies with the potential to offer joint activities with emerging companies," explained Warren Centre Executive Director, Professor Trevor Cole.

Commenting on the DoCITA program under development, Professor Cole placed the emphasis on the quality of the executive manager and of the incubatee mentors as well as the provision of a suitable equity-based incentive scheme for all participants.

"That includes the entrepreneur, the incubatee team, the incubator mentor, and the incubator company," he said.

"This model differs in a number of respects from the often-mentioned Israeli model and draws more on the experience of company start-up and growth in other centres including Cambridge in the UK, Espoo in Finland, Austin in Texas, Gothenburg in Sweden and throughout Scotland."

For more information contact Michael Quinn, tel (02) 9252 4844; mquinn@kaylara.bu.aust.com or Professor Trevor Cole, tel (02) 9351 7224; t.cole@ee.usyd.edu.au

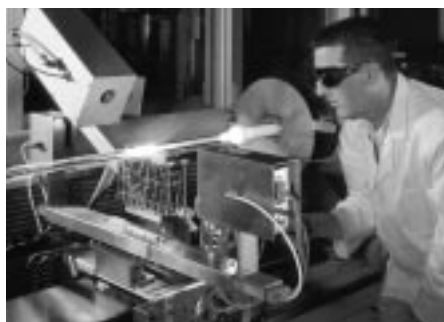
PHOTONICS CRC – a new route to long term commercial success

With its renewed funding, the Australian Photonics Co-operative Research Centre, is setting its hopes on a new approach to commercialising Australian intellectual property (IP).

Initially set up in 1992, the CRC has recently received renewed funding for seven years of approximately \$200 million.

The vision is that commercialisation will be handled pro-actively by the CRC through a wholly owned, globally oriented company called Redfern Photonics Pty Limited and a large number of start-up subsidiaries.

Intellectual property with good market prospects is seed funded by Redfern Photonics and technology champions are encouraged to move from R&D towards commerce. Experienced business mentors are providing training to the young entrepreneurs.



Fibre manufactured by CRC start-up, Redfern Fibres is used by sister subsidiary, Redfern Optical Components, in a high value-adding process. Both companies are part of the new Redfern Photonics Group set up by the CRC to focus on commercialisation.

Already there are five new start-ups, Redfern Fibres, Redfern Optical Components, Redfern Broadband Networks, Redfern Integrated Optics, and Redfern Interlink. And the group is conservatively forecasting corporate valuations around \$500 million.

DIARY DATES

6 December:

The Warren Centre Information Society Lecture by Danita Lowes, Managing Director, Telstra Media, on 'Innovation on the net – the commercial and people challenges' at the Australian Technology Park. Supported by Telstra, Australia Online, Macquarie Bank and Nortel Networks.

Contact Judy Potter tel (02) 4422 2203 email twc@welldone.com.au

6-7 December:

Enterprise Innovation 2000. Address by The Hon Michael Egan, Treasurer and Minister for State and Regional Development. Supported by Griffith Hack, iii, NSW Department of State & Regional Development.

Contact Michael Johnson tel (02) 9810 8107 email mjanda@zip.com.au

March 2000:

Transport Project public launch with Professor Martin Wachs from Berkeley.

Contact Corinne Turner tel (02) 9351 3576 email c.turner@eng.usyd.edu.au

5 April 2000:

The Warren Centre Innovation Lecture by Catherine Livingstone, CEO, Cochlear.

Contact Corinne Turner as above.

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spin-off companies

out of tertiary institutions

While there is a wealth of intellectual property and 'bright ideas' in Australia's universities, only a small proportion actually result in spin-off companies.

Dr Maurice Barton, Industry Liaison Manager, College of Sciences & Technology from The University of Sydney, suggests why this is so.

"For a spin-off to form there has to be both a mature technology and someone with the enthusiasm to commit to the first phase of a start-up company – a 'champion' or 'vector'," he explained.

"It is not a shortage of technology with commercial potential which is the limiting factor but a shortage of willing champions –

champions of the appropriate calibre to ensure the success of the venture."

Traditionally the champion is expected to be a member of the research group who has been with the technology development for several years as academic staff, a senior researcher or professional officer.

However, most long-term academic staff members are reluctant to resign from academia to devote themselves full-time to a start-up venture, and would not necessarily have the right skills.

"They have committed to an academic career and often have commitments which are incompatible with the risk involved," said Barton. "Vectors must be sought elsewhere."

INCUBATING

UNIVERSITY IP

Growing recognition of the need for greater awareness of business potential is spawning many new programs at the undergraduate and graduate level.

As Peter Why, President of the International Association of Science Parks, said, "We have to teach people at an early stage about entrepreneurship and business potential."

Why supports education at a high school level as well as at a tertiary level. "We need

courses and programs and we need to be much better at giving undergraduates the opportunity to do it themselves," he said.

"We also want to encourage them to go through an incubator scheme as the chances of success are so much greater."

Most tertiary institutions have established courses to teach venture creation skills. A future edition of this newsletter will focus on these.

PDFs enhanced by TAX CHANGES

PDFs (pooled development funds) have become even more attractive under the recently announced Ralph tax changes. PDFs have been refined in recent years to become an attractive vehicle for capital raising for investment into technology and other development companies. Trusts, which have been the traditional structure for many Australian venture capital funds, will now be less tax effective in most cases.

PDFs are companies registered with the Pooled Development fund Board in Canberra. They receive preferential taxation benefits so long as they meet certain criteria. These criteria include a condition that investee companies not be engaged in certain industries such as retail and property development and that they have gross assets of less than \$50 million. They are ideal for technology focused venture capital funds.

In the case of capital gains derived from successful investments, a PDF itself is taxed at 15%. Distributions to the shareholders of the PDF are very favourably treated. Distributions to an individual or company shareholder are tax free. Thus, on a 'see through basis', the capital gains tax for an individual or company investing in the investee company via a PDF is 15%.

Under the proposed changes, a widely held superannuation fund (five plus members) will not only be able to receive the distribution tax free, but will in effect be able to reclaim the 15% tax paid by the PDF. In other words the 'see through tax rate' will be zero.

Further information may be obtained from the Pooled Development Fund secretariat on (02) 6213 6549. Warren Centre director, Michael Quinn, has recently formed a PDF called Innovation Capital Ltd and may be contacted for comment on (02) 9252 4844.

WARREN BOOKLET LAUNCHED

In a spirit of celebration, the short biography of Sydney University's first professor of engineering and one of Australia's great engineers, Professor William Warren was launched on 22 October.

The booklet, *Australia's Great Engineers: William Henry Warren* by Dr Michael Gourlay is an insightful and full description of Warren's life and work.

At the launch, Dr Gourlay gave an animated and illustrated description of the early part of the Professor's life wetting listeners' appetites to read more.

Given in the lecture theatre where Professor Warren gave his last lecture, the talk was preceded by an inspiring introduction by Will Strachan, General Manager, Infrastructure & Environmental Services at the NSW Department of Public Works and Services.

He acknowledged Warren as the foundation of Australian engineering, and Australian engineering as the foundation of Australia.

Ian Pedersen, President of the Institution of Engineers, Australia (IEAust) gave the vote of thanks.

Copies of the publication were presented to Mr Strachan, Mr Pederson, and to Professor Emeritus Dame Leonie Kramer, Chancellor of The University of Sydney.

The Warren Centre would like to thank the Institution of Engineers, Australia, The University of Sydney's Engineering Faculty, Gutteridge Haskins & Davey (GHD), and NSW Department of Public Works and Services for their support of this activity.

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Designed and produced by: Kannegieter & Jackson

Print Post No: PP224696/00070