

# CUDOS

The Centre for Ultrahigh bandwidth Devices for Optical Systems (CUDOS)

2005  
Annual Report



# Commercialisation

## Highlights for 2005

- Centre Intellectual Property Register in place with sixteen items listed including two patents at PCT stage and one provisional patent
- Strategic Intellectual Property plan in place to address next phase of Centre evolution

## Intellectual Property Strategy

CUDOS has now completed three years of operation. As a Centre of Excellence, our primary focus is on excellence in research. At the same time we are committed to adding value to our research outcomes by adopting appropriate procedures to ensure that those with industrial application are identified and protected for eventual commercial benefit. Our Register of Centre Intellectual Property (IP) is now in place and contains sixteen items spanning software codes, confidential information relating to process technology and three patent applications.

The process of registering IP proceeds in accordance with the procedures of the five collaborating universities. To add value to these procedures we have formed a Commercialisation Committee to assist, amongst other duties, in assessing potential IP. The Committee has representatives from each of the five university business offices as well as the COO and Research Director.

We are aware that as the Centre evolves, IP will be generated during the lifetime of the Centre, which may extend well beyond the initial five year tranche of ARC support. As a Centre, we have asked ourselves how we might adopt a strategic approach to developing and protecting our IP. The outcome of our deliberations, which has been discussed with our Advisory Board as well as with the ARC at our Year 3 review,

is that we should formulate a plan that identifies the business areas of opportunity for our research and the key technology opportunities within those business areas. We should then build a patent portfolio over the next three years that captures those technology opportunities.

This strategy is aligned with the central strategic research imperative of CUDOS to develop all optical processing technologies in a photonic integrated circuit. We reviewed our areas of business opportunity in late 2005 and concluded that commercialisation benefits would be most substantial in development of devices for next generation optical networks, with potential also in the related area of optical interconnects. Other markets – sensors, instrumentation – should be approached on a more opportunistic basis.

Within next generation networks, we analysed different device and technology opportunities in terms of our technical advantage and likely business opportunities. Clearly, those opportunities that score highest on both counts are the ones that we should pursue patent protection for (see diagram below). We have identified several opportunities that rate highly on the 'Technology Competitiveness' axis and moderately on the 'Market Opportunity' axis, and we intend to build a patent portfolio in those areas over the coming years.

## Industry Linkages

Centre researchers have strong links with local and international industry. In 2005 we carried these links one step further to enter into a collaborative research relationship with a local SME under the auspices of the ARC's Linkage – Projects program. This project, to run for three years, will see CUDOS researchers explore new opportunities for IP proprietary to the company.

