

# Annual Report 2004



The Centre for Ultrahigh bandwidth Devices for Optical Systems (CUDOS)  
An Australian Research Council Centre of Excellence

# Performance Indicators

Key Result Area and Performance Indicator	Target (Year Two)	Achievement (Year 2)
<b>Research findings</b>		
Quality of publications	Average Impact Factor > 2.2 in year 2 for top 40 publications	Impact factor = 3.5 for top 40 publications
Number of publications	>40 in year 2	50 refereed journal publications 2 Book chapters
Number of patents applications	1 pa in yrs 1-2	1 patent application filed in 2004
Invitations to address international conferences	10 in year 2	21 (see list in publications section)
Invitations to visit leading international laboratories	7 pa	7 Eggleton 4 Kivshar 2 Gu 1
Number and nature of commentaries about the Centre's achievements	2 in trade journals 3 pa in popular media, professional magazines	4 in trade journals, 2 in popular media. Articles in Laser Focus World, Optics and Photonics News, The Physicist and Physics Today; Popular press articles on B Eggleton (McIntosh award winner), R McPhedran work on sea mouse spines
<b>Research training and professional education</b>		
Number of postgraduates recruited	10 in year 2	8
Number of postgraduate completions	5 pa (after year 3)	N/A
Number of Honours students	8 pa	7
Number of professional courses	2 pa	1 One short course presented at OFC by Eggleton
Participation in professional courses	3 pa	
Number and level of undergraduate and high school courses in the priority area(s)	4 u/grad subjects 5 high school visits pa	2 U/grad subjects taught; Presentation to NSW Science Teachers Association
<b>International, national and regional links and networks</b>		
Number of international visitors	9 pa	23 16 (ANU), 4 (Sydney); 1 (UTS); 2 (Swinburne)
Number of national and international workshops	Host 1 in year 2	2 CUDOS-only workshops (see Collaboration section)
Number of visits to overseas laboratories	10 pa	15 Eggleton 3 Kivshar 12 Gu 2
Examples of relevant Social Science & Humanities research supported by the Centre	1 pa	
<b>End-user links</b>		
Number & nature of commercialisation activities	2 pa in years 3 - 5	Commercialisation committee formed. Meetings with 2 companies to discuss collaborative opportunities
Number of government, industry and business briefings	1 pa in yrs 1-2	1 Attendance at DSRD Round table meetings (Eggleton/Walsh)
Number of Centre associates trained/ing in technology transfer and commercialisation	30 in year 1	All new students provided with training in log book maintenance and IP rules
Number and nature of Public Awareness programs	2	1 Project initiated to produce web site for High School Teachers (will go live in 2005)
<b>Organisational support</b>		
Annual cash contributions from Collaborating Organisations		1. All contributions made in accord with Collaborator agreement 2. Extra cash support as noted in Research Overview. (\$700,000 for facilities exclusive to CUDOS; >\$1M for facilities shared with CUDOS)
Annual in-kind contributions from Collaborating Organisations		In-kind contributions in accord with schedules in Collaborator Agreement
Number of new Organisations recruited to or involved in the Centre	2 in all	New collaborations with RMIT (Kivshar, Eggleton) and U. Queensland (Eggleton)
Level and quality of infrastructure provided to the Centre	Establish new Optics & Photonics Laboratory at Sydney University, 12 refurbished offices for 20 new staff, new website and IP process. Also see Section C3 of Proposal	New infrastructure in 2004 funded by Universities: - New nanophotonics lab funded by Sydney (\$300,000) - Bit error rate test system at Sydney (\$400,000) - Access to > \$1M of new infrastructure at ANU - Laboratory refurbishment at Macquarie
<b>Governance</b>		
Breadth and experience of the members of the Advisory Board	Each Board Member has several years' experience in relevant professional areas	Four new Board members in 2004 representing industry, venture finance, NICTA and Photonics CRC
Frequency and effectiveness of Advisory Board meetings	2 in year 2	One meeting in April; no end of year meeting at request of Board members
Quality of the Centre strategic plan	ARC, ARC Review Panel and Advisory Board accept the Centre's KPM indicators	Indicators accepted
Effectiveness of arrangements to manage Centre nodes	Centre participants and line managers at each node report satisfactory arrangements during ARC reviews. Node research is featured in Annual Report	See details in Governance and Management
The adequacy of the Centre's Key Performance Measures	ARC, ARC Review panel and Advisory Board accept the Centre's KPM indicators.	Indicators accepted