AUSTRALASIAN CRC FOR INTERACTION DESIGN PTY LTD

ANNUAL REPORT 2003-2004

CRC AUSTRALIA

Established and supported under the Australian Government's Cooperative Research Centres Programme

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AUSTRALASIAN CRC FOR INTERACTION DESIGN

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PREFACE

WHY ACID?

The Creative Industries in Australia are worth more than $18B pa, yet Australia is a net importer of these goods and services. To remain economically relevant, Australians need to change this position to that of an exporter.

The Creative Industries fuel innovation in diverse sectors not limited to manufacturing, health, research, defence, education and business. Australia is poised to capitalise on new opportunities within the Creative Industries presented through the establishment of the Australasian CRC for Interaction Design (ACID).

WHAT IS ACID?

ACID addresses deficiency in the Creative Industries that is both social and economic in nature: there is no core body of researchers, there is no single industry identity and there is no single industry body that represents the collective interests of the diverse industry constituents. Through the establishment of ACID we have identified ample evidence that critical mass can be harnessed and put towards addressing these deficiencies.

WHO IS ACID?

One crucial objective for ACID to meet as an organisation is to fuel economic growth. This will be achieved by the nurturing and ongoing development of skilled and knowledgeable people; people who can create and commercialise new intellectual property, thus developing Australia and New Zealand as an international hot spot for the Creative Industries.

We aim to build connections between consumers and industry users; content and application developers; software system developers and hardware manufacturers. Our activity is focussed on a relatively young research sector; interaction design.

CRC OBJECTIVES

PURPOSE

To be a globally recognised hub for education and commercialising R&D in Creative Industries.

VISION

To put Australasian Creative Industries on the world map.

EXECUTION

To focus on techniques that enhance the way people participate in the digital world through:

- Being user-driven;
- Innovative collaboration and inter-disciplinary practice; and
- Leveraging scarce capabilities for critical mass.

VALUES

- Have fun;
- Be the best;
- Be ethical and transparent;
- Be successful and profitable; and
- Be inclusive.

CRC Programme Objective 1:

To enhance the contribution of long-term scientific and technological research and innovation to Australia's sustainable economic and social development.

Centre Objectives	Performance Measures
1.1 Multidisciplinary research that leverages existing R&D programs through a strong network of participants.	Research outputs will be in excess of 20 processes, methods, patents and publications from multi-disciplinary teams working across multiple nodes.
1.2 Demonstrate new interactive content and hardware and software prototypes in user-driven contexts for the Creative Industries sector.	Develop in excess of 20 prototypes for products in content, hardware and software as defined by user feedback and input.
1.3 Deploy R&D to enterprise development through the creation of flexible, transferable and reproducible processes for commercialisation.	Up to $3M in income achieved through licenses, spin-offs, consulting and other income generation mechanisms.

CRC Programme Objective 2:

To enhance the transfer of research outputs into commercial or other outcomes of economic, environmental or social benefit to Australia.

Centre Objectives	Performance Measures
2.1 New partnerships and beneficial linkages, strengthening R&D efforts of industry partners.	Industry participants will receive in excess of 20 prototypes providing commercialisation opportunities for products in content, hardware and software.
2.2 Development of new communities of interest for groups such as Aborigines, the aged and children through research programs and themes, such as Virtual Heritage and Community Network.	Development of multiple, practical strategies for relating technical innovation to community development.
2.3 Develop research for national and international companies through an SME Consortium configured to provide R&D services.	SME consortium of over 12 industry partners which will attract 1-2 research/production contracts per year.

WHAT IS INTERACTION DESIGN?

Interaction design is about finding better ways for people to interact with each other through communication technologies.

Interaction design involves understanding how people learn, work and play so that we can engineer better, more valuable and more appropriate technologies to the contexts of their lives. As an academic discipline, interaction design is about the people-research that underpins these technologies.

ACID Research Programs will develop models, methods, technologies, tools and proof-of-concepts that:

- Demonstrate new interactive content, hardware and software prototypes in market driven contexts;
- Discover how to take advantage of collaborative opportunities within the Creative Industries;
- Develop research for national/international companies through an SME Consortium that provides R&D services; and
- Deploy R&D to enterprise development through the creation of flexible, transferable and reproducible processes for the commercialisation and creative capital configurations of Creative Industries businesses.

CRC Programme Objective 3:
To enhance the value to Australia of graduate researchers.

Centre Objectives	Performance Measures
3.1 Delivery of a critical mass of new research talent into an emerging industry.	40 – 50 post-graduate students, working collaboratively in cross-disciplinary, cross-institutional, international projects, with options to participate in CRC-sponsored online education and training courses. Integrate UG students.
3.2 Industry-university exchange opportunities for post-graduate students.	Establishment of a post-graduate supervision program providing 40 – 50 exchange opportunities with CRC industry participants and affiliates.
3.3 Enhancement of existing education programs in interaction design across vocational, undergraduate and post-graduate programs.	Up to 30 short courses developed from research output and taught to both internal and external clients.

CRC Programme Objective 4:
To enhance collaboration among researchers, between researchers and industry or other users, and to improve efficiency in the use of intellectual and other research resources.

Centre Objectives	Performance Measures
4.1 Research programs are designed to benefit from the multiple competencies that reside in the Centre partners.	Project proposals must demonstrate at least two university partners working in a multi-disciplinary, multi-nodal capacity.
4.2 Research is designed to respond to user needs.	Project proposals must demonstrate user input and at least one industry participant.
4.3 Whenever practical, international collaborators are involved in projects to enhance the global perspective.	In excess of three projects will have international researcher involvement. The education program involves three international partners working collaboratively on one project per year.

CHAIR'S REPORT

The establishment of ACID has been an important development not only for the CRC programme but also for Australia's Creative Industries.

The Commonwealth CRC program's imprimatur for this new research enterprise represents an overdue acknowledgement of the importance of digital content and applications, not only in fueling the growth of the economically significant Creative Industries but also as a important area of innovation and emerging technology in its own right. A recent report to the Commonwealth noted that:

"The nature of R&D and innovation within the creative and content industries generally has not been closely examined. This largely reflects the sorry fact that these industries have tended to be at the fringes of national discussions about science and innovation policy and of related funding and industry programs. A further complication is that there is little systematic data about the extent and nature of R&D activity and funding in the Creative Industries in general and for digital content production in particular."

The establishment of ACID has proved a catalyst to energise previously isolated researchers in this field by providing a platform to build a critical mass of research effort.

Work in this field is inherently inter-disciplinary, which challenges many traditional research paradigms. It is also inherently market driven because the central focus on developing technical solutions to user interfaces means that the interests and requirements of the end user crucially inform the research activity. This may explain why we can report that ACID has already identified numerous commercialisation opportunities, much earlier than might

CEO'S REPORT

I am pleased to report an extremely exciting and productive financial year for ACID. None of the events of the last 9 months would have been possible without impressive contributions of all ACID's participants.

CREATIVE INDUSTRIES CLUSTER STUDY

In the last two years we've seen the results of many studies and market reports that measure the economic value of design and Creative Industries internationally. We now know that the global design and Creative Industries have been growing faster than the rest of the economy. In the UK and US, average annual growth for the Creative Industries has consistently been more than twice that of the economy at large, yet in Australia we're still a net importer of Creative Industries products and services.

The Creative Industries Cluster Study was one such study finalised in 2003 by the Commonwealth Government. It noted "the relatively small scale of digital content and associated applications development activity in Australia and the fragmentation of the industry. It concluded that companies here risked being marginalised on the world stage." Strategically ACID is well-placed to address the social and economic barriers inherent in this context.

ACID's outreach and positioning allows it to assist the successful crystallisation of Australian design and Creative Industries communities through the integration of CRC Programme objectives, the research aspirations of Australasian universities and the growing imperatives that companies have for R&D in ACID's core areas. This year we have truly met the challenge of building a business infrastructure around both the needs of individual researchers and the requirements of a successful commercial venture.

As such we are on track to showcase the intellectual and commercial outcomes of Australia's Creative Industries to the world and we'll help achieve this through ACID's core values which are to: Have fun; Be the best; Be ethical and transparent; Be successful and profitable; and Be inclusive.

POWERFUL AND SUSTAINABLE ADVANTAGES FOR AUSTRALIA

ACID is uniquely situated in the world to help Australia take advantage of its hybrid Aboriginal-Asian-European-North American design and Creative Industries. ACID has a defined capacity to integrate the hard-edged commercial focus of its Smart Living projects with the distinctive and responsible activities in the Virtual Heritage projects. To make ACID truly distinctive we've combined these with technologies in Digital Media projects and the mass-distribution and social capacity development expertise emerging in the Multi-user Environments projects. This multifaceted integration of technology, methods, domain knowledge and culture provides ACID and the Australian economy with an ultimate value differentiator and a truly sustainable advantage.

ACID now provides:

- Access to world class researchers and research infrastructure;
- Access to responsive populations in Universities who are fluent with new technologies;
- Breadth of research and development portfolio creating a unique value-adding capacity;
- Depth of discipline based expertise and a responsive organisational structure that allows focused, multi-disciplinary projects to emerge very rapidly;
- An emerging core of people-research and design-research methods for new technology development and engineering; and
- Ownership of an emerging core of technologies for the deployment of online and mobile communities.

(L) Professor Jeff Jones
(R) Dr Terry Cutler

have been expected or has been the experience with other CRCs.

In establishing ACID, considerable thought and effort went into shaping appropriate corporate structures and a robust governance framework. ACID has been established as a company under Corporations law, with the various participants subscribing to a detailed Shareholder Agreement. ACID operates with a small, skills-based Board encapsulating research, industry and commercial experience and with a strong core of independent directors. This Board is developing into an effective team which engages productively with the CEO and management. A Board of such calibre and commitment makes the job of Chairman both rewarding and a rich learning experience and I want to express my admiration for my Board colleagues' collective enthusiasm for this venture.

The easiest decision of the Board was to confirm the appointment of Jeff Jones, the driving force behind the creation of this enterprise, as CEO. The CEO's overview of the first year of our operations shows an impressive record of achievement, which I commend to our numerous shareholders and active stakeholders.

Moving forward, we confront many challenges. We need more support and funding to scale up our efforts. We also need to move quickly to develop our capabilities around commercialisation. These are, however, nice challenges to confront because they underscore the promise of this adventure we have embarked upon.

Dr. Terry Cutler
Chairman

ACHIEVEMENTS

The past year brought many challenges.

Key achievements are:

- Business infrastructure, project arrangements and procedural elements fully operationalised;
- Research proposal, approval and variation processes implemented with a milestone-based procedure for approving research outcomes (over 100 proposals considered);
- A robust and focused skills-based Board and governance structure;
- Accessible and focused world class researcher community and research infrastructure;
- Enthusiastic Board and deep collaborative initiatives between universities and industry;
- More than 150 people from Australia and New Zealand working on 15 collaborative projects from 6 Universities and 12 industry & government participants;
- Powerful, high impact and globally distinctive collaborations with Aboriginal communities;
- Strong priorities in people-research and human dimension issues for new mass-distribution technologies
- Draft commercialisation plan;
- 12 commercial prospects 12 months in advance of planned outputs; and
- Supplementary funding proposal submitted with huge international industry participation.

NEW PARTICIPANTS RECOGNISE THE BENEFITS OF CRC PARTICIPATION

Mid-year two new industry participants were added to the ACID shareholder network. Heritage Pacific, a developer of residential master planned communities, brings a wealth of infrastructure and experience with people in sustainable, high-tech communities. Heritage Pacific is a highly valuable addition to the commercialisation of outputs in the Smart Living program and to related activities in other core areas. iMap systems, a developer of innovation management software, adds yet another dimension of expertise and potential to ACID as a vehicle for growth and innovation. The iMap software will help us track our innovations better and our people-researchers will help the iMap company increase the quality of outcomes expected by their growing customer base.

In ACID we are always looking for new participants and sponsors who want to leverage our capacity and/or help us expand our skills and capabilities.

ACID'S OUTSTANDING STUDENT COMMUNITY

The establishment of ACID's education program and student community is still underway. With over 13 post graduate students and more than 25 undergraduates participating in projects, ACID is poised to grow its student population in a very deliberate fashion over the next 6 years.

A REAL TEAM EFFORT

I'd like to express my sincere thanks to the ACID Board, ACID's research leaders in each university, the ACID HQ staff, program managers and project leaders and all participants and researchers. In particular I'd also like to acknowledge the heroic enthusiasm and commitment of the core group of staff (and their patient families) based at ACID HQ and Dr Terry Cutler for his insightful leadership and support over the past few years. The challenges we face ahead are particularly exciting knowing that this collective effort will continue to grow and harvest the benefits of real collaboration.

COMMEMORATIVE

During this past year three talented QUT students passed away after a tragic car accident. The three students, Gerard Cutcheon, Adam Neykoff-Davies and Helena Wood, were part of an uprising of undergraduate students pursuing a keen interest in joining the ACID post-graduate community. Their talents and their presence will be missed.

Professor Jeff Jones

"EVERYTHING THAT CAN BE INVENTED HAS BEEN INVENTED."

Charles H Duell, Commissioner, U.S. Office of Patents, 1899

STRUCTURE & MANAGEMENT

THE ACID COMPANY

Australasian CRC for Interaction Design Pty Ltd (ACID) is an incorporated entity. Our core business is R&D and commercialisation of content and technologies for the Creative Industries. ACID started its operations with $8M in cash support; $60M of in-kind from universities and industry and $12.4M from the Australian Government's Cooperative Research Centres (CRC) Programme.

PARTICIPATING ORGANISATIONS

Core Participants
- Queensland University of Technology
- University of Queensland
- RMIT University
- Griffith University
- Murdoch University
- Silicon Graphics, Inc
- Auran Technologies Pty Ltd
- Cyber Dreaming Pty Ltd

Supporting Participants
- Australian Centre for the Moving Image
- Brisbane City Council
- HITLabNZ/University of Canterbury
- Canterbury Development Corporation
- Corporation Builders
- Department of State Development and Innovation, Queensland Government
- QANTM Pty Ltd

New Participants
(voted in as shareholders May 2004)
- Heritage Properties Pty Ltd
- iMap Pty Ltd

SME Consortium
- Clui Urban Pty Ltd
- Digital Nemesis Pty Ltd
- DVP Media Pty Ltd
- Liquid Animation Pty Ltd
- KROME Studios Pty Ltd
- ToadShow Pty Ltd
- Virtual Realms Pty Ltd
- Zone4 DigitalMedia Pty Ltd

THE BOARD

- Chairman, Dr Terry Cutler
- Professor Jeff Jones, CEO ACID
- Professor David Gardiner, QUT (resigned August 2004)
  Professor Arun Sharma, QUT (appointed August 2004)
- Professor Neil Furlong, RMIT
- Graham Edelsten, Auran Technologies Pty Ltd
- Bill Trestrail, Silicon Graphics Pty Ltd
- Dr Mary O'Kane, Mary O'Kane & Associates
- Michael Begun, CM Capital Pty Ltd
- Dr Katherine Woodthorpe, ACID Visitor
- Company Secretary, Sonya Henderson Edbrooke
- Secretary to the Board, Kelina Miller, ACID

2003/2004 MEETING DATES

- Tuesday 5 August 2003 – Venue ACID HQ
- Thursday 18 December 2003 – Venue ACID HQ
- Monday 15 March 2004 – Venue ACID HQ
- Wednesday 26 May 2004 – Venue ACID HQ

ATTENDANCE AT BOARD MEETINGS

Board Member	5 Aug 2003	18 Dec 2003	15 March 2004	26 May 2004
Terry Cutler	yes	yes	yes	yes
Jeff Jones	yes	yes	yes	yes
David Gardiner	yes	yes	yes	yes
Neil Furlong	teleconference	x	teleconference	yes
Graham Edelsten	yes	yes	yes	yes
Bill Trestrail	yes	yes	yes	yes
Mary O'Kane	yes	yes	yes	yes
Michael Begun	yes	yes	yes	yes
CRC Visitor – Katherine Woodthorpe	yes	x	x	x

DR TERRY CUTLER

ACID Chairman

- Industry consultant and strategy advisor in the information and communications technology sector
- Board of the Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- Member of the Victorian Government's Innovation Economy Advisory Council
- President of the Australian Centre for the Moving Image
- Member of the International Advisory Panel of Malaysia's Multimedia Super Corridor
- A Director of Malaysia's Multimedia University

PROFESSOR DAVID GARDINER

- Professor of Law and Deputy Vice-Chancellor (Academic) of Queensland University of Technology
- Board Member of Farmacule BioIndustries Pty Limited
- Board Member of Tissue Therapies Ltd

PROFESSOR ARUN SHARMA

- Deputy Vice-Chancellor (Research and Commercialisation) of Queensland University of Technology
- Co-founder of National ICT Australia Limited (NICTA)
- Member of ICT Sector Advisory
- Committee of CSIRO
- Member of the Advisory Board of the ARC Special Research Centre for Ultra High Bandwidth Optical Devices

PROFESSOR NEIL FURLONG

- Pro-Vice Chancellor Research and Innovation at RMIT University
- Board member of RMIT Innovations Ltd
- Board member of Spatial Vision Innovations Ltd
- Board member of Victorian Partnership for Advanced Computing
- Board member of Nanotechnology Victoria Ltd
- Honorary Secretary of the Academy of Technological Sciences and Engineering (Fellow since 1997)
- Senior Fellow, School of Chemistry, University of Melbourne
- Editor of the international journal Colloids and Surfaces

DR MARY O'KANE

- Consultant and company director
- Executive Chairman of a company which advises governments and the private sector on innovation, research, education and development
- A Director of Sienna Capital Ltd and of the Development Gateway Foundation established by the World Bank
- Member of the Australian Aid Advisory Council
- Senior Advisor to the Australian Government on the Virtual Colombo Plan
- Chair of the Australian Research Council Federation Fellows Committee in 2003
- Fellow of the Academy of Technological Sciences and Engineering
- Honorary Fellow of the Institution of Engineers, Australia

GRAHAM EDELSTEN

- Entrepreneur
- Co-founder and Chief Financial Officer of the Auran Group of Companies
- Member of ICT Ministerial Advisory Group, a joint venture between the Queensland State Government and local industry players
- Member of IT Advisory Board to Austrade

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BILL TRESTRAIL

- Area General Manager of Silicon Graphics Pty Ltd (SGI) Australia and New Zealand
- Director of Silicon Graphics Pty Ltd
- Board member of Antarctic Climate and Ecosystems Co-operative Research Centre
- Governor of the Warren Centre

MICHAEL BEGUN

- Co-founder of CM Capital and brings extensive private equity investing experience, along with 20 years+ of management and engineering experience in the computer, software and telecommunications industries
- Leading Australian IT and Telecommunication investor
- Director of Dilithium Networks Inc.

DR KATHERINE WOODTHORPE

- Management consultant and professional director
- Chairman of the Cooperative Research Centre for Antarctic Climate and Ecosystems
- Board of three public companies (two listed) and several government bodies
- Fellow of the Australian Institute of Company Directors

PROFESSOR JEFF JONES

ACID Chief Executive Officer

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1. Dr Terry Cutler
2. Professor David Gardiner
3. Professor Arun Sharma
4. Professor Neil Furlong
5. Dr Mary O'Kane
6. Graham Edelsten
7. Bill Trestrail
8. Michael Begun
9. Dr Katherine Woodthorpe
10. Professor Jeff Jones

THE AUDIT COMMITTEE

The Audit Committee oversees and reviews the processes of management and the audit function with a view to achieving ACID's strategic objectives in an efficient and effective manner. The Committee assists the Board and company officers in the discharge of their responsibilities for financial reporting, compliance, internal control systems, audit activities, risk management and any other matters referred to it by the Board.

The Committee meets a minimum of three times a year and Membership consists of:

- Dr Mary O'Kane, Chair
- Dr Terry Cutler
- Professor Jeff Jones
- Sonya Henderson Edbrooke, Secretary

THE REMUNERATION COMMITTEE

The Remuneration Committee oversees the recruitment, remuneration and performance evaluation of the CEO and determines policies and practices for executive employment and remuneration.

The Committee meets as required and Membership consists of:

- Dr Terry Cutler, Chair
- Bill Trestrail
- David Gardiner

THE INTERNATIONAL SCIENTIFIC ADVISORY GROUP

The International Scientific Advisory Group will be formed later in 2004 and is needed to establish two-way communication between ACID and the international community. The Group should provide ACID with the means to develop links with organisations that have a substantial interest in our work, whilst enabling those organisations to provide feedback on ACID research directions and the application of research and transfer of technology.

This is reflected in the Group's terms of reference, which are to:

- Inform ACID on critical issues in interaction design research and commercialisation;
- Assist ACID in aligning its research and education programs with the international community and external stakeholders values and needs; and
- Facilitate the national and international transfer of knowledge and technology developed by ACID.

GOVERNANCE FRAMEWORK

ACID corporate governance framework recognises a responsibility to the federal government CRC Programme objectives as well as to the legal and governance requirements of the Corporations Act. It provides an overall view of where responsibility lies for specific areas of governance and management. In operation, it addresses the motivational communication requirements of ACID as a complex R&D company with multiple participants working in multiple locations.

Combined with implementation of a skills-based Board this framework has also allowed ACID to clearly articulate people roles, process responsibilities and the outputs of the Company's business plans. It allows for the implementation of strategies to produce financial returns from Company operations; to manage cash and in-kind resources; to produce quality research and the delivery of other economic and social "returns"; and to deliver on federal, state and local objectives through research, education and commercialisation output.

AUSTRALASIAN CRC FOR INTERACTION DESIGN

Direction ↓

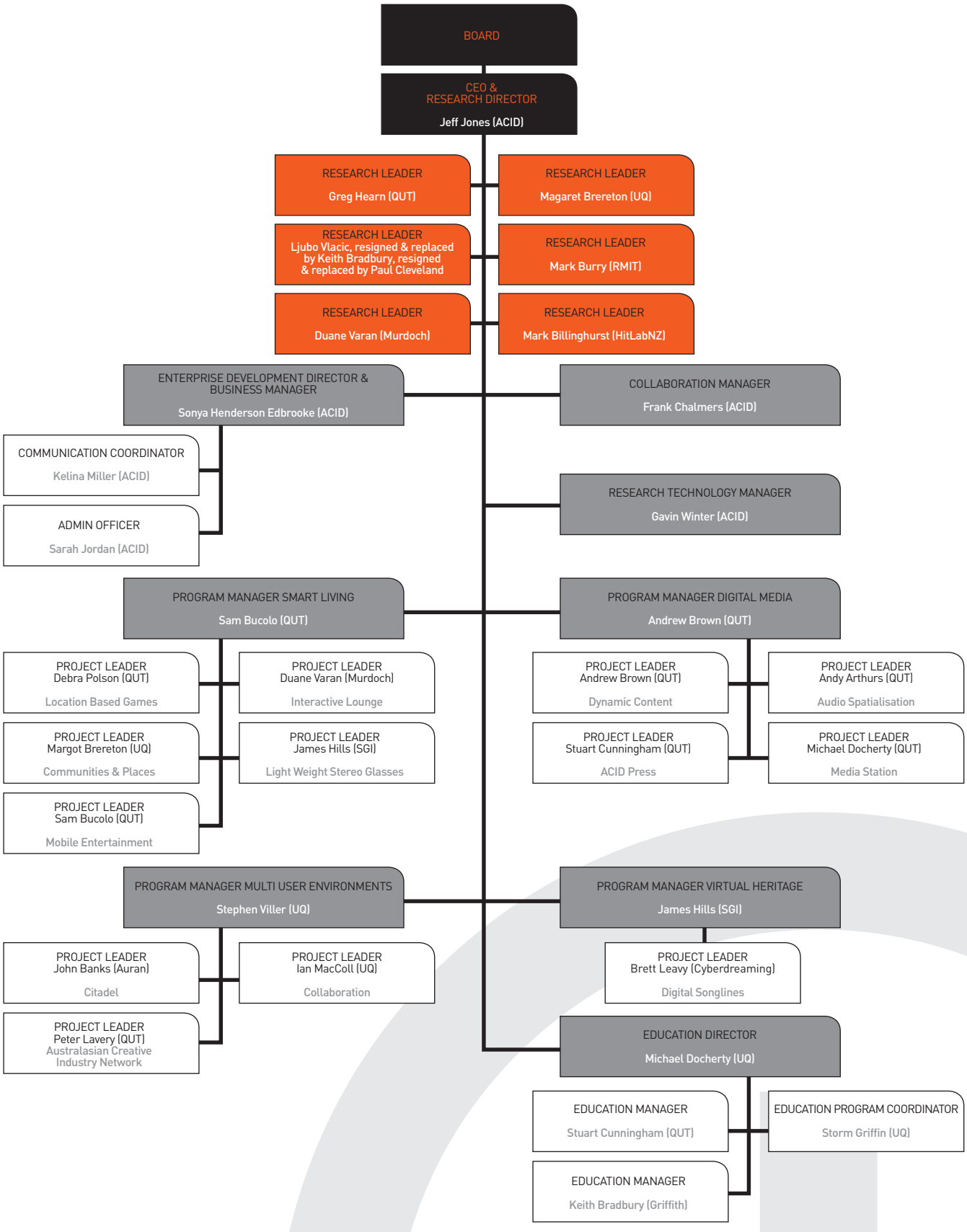
Hierarchy of Processes	Governance Element	Responsibility	Output
	CRC Program	Federal Science Minister	4 CRC Objectives*
Strategic Plan → Purpose → Values → Risk Management	Codes of Practice/ Conduct Legal Resource Allocation	Board and Sub-Committees	Strategic Direction New Participants Compliance Science Advisory Group
→ Intent-Channel/Market Development → Operating Principles	The 7 Key Activities Communication strategy Finance	CEO	Priorities Sponsors Market Awareness
Operational Plan	Budgets Initiatives	Executive Team	Systems Events Market Analysis
Operating Platform	Guidelines	Research Committee	Project Approval
	Policies	Program Managers	IP Registry Program Management
	Procedures	Project Leaders Project Participants	Project Execution Demonstrators/ Prototypes

Control ↑

← Governance Relationships →

*CRC Programme Objectives:	Sustainable long-term research	Transfer of Research Outputs	Develop Quality Researchers	Enhanced Collaboration

ACID ORGANISATIONAL STRUCTURE



MANAGEMENT & STAFF

Professor Jeff Jones, Chief Executive Officer

spearheaded the vision that realised ACID. He was responsible for the raising of $20M from government, industry and universities. As CEO of ACID he is now responsible for marketing and profiling the Centre and the initiatives that will identify and grow the ACID core competencies via industry-university collaborations.

Sonya Henderson Edbrooke, Enterprise Development Director

is responsible for the development and implementation of the commercialisation and technology transfer frameworks, as well as the day to day business management of ACID. As a manager and consultant she has been responsible for personnel, departments and projects for over 20 years in the advertising, banking, training and multimedia industries.

Frank Chalmers, Collaboration Manager

is responsible for enabling collaborations within the established ACID project frameworks. He has worked as a designer for multi-player computer games and goals-based scenarios for entertainment and government training, Information Designer for websites and interactive CDs, Screenwriter, television drama Writer, documentary Writer-Director, Scriptwriter for educational media and a Lecturer at various universities in Communication Design, Writing and Philosophy.

Gavin Winter, Research Technology Manager

develops and maintains high-end computing environments for ACID research programs and is a participant on some of ACID's key projects. Gavin's background is IT management and support in the Creative Industries.

Kelina Miller, Communication Coordinator

coordinates the business areas of communication and marketing as well as web publishing. She is also the Secretary to the Board of Directors, the Research Committee and provides back-up support to the Business Manager.

Sarah Jordan, Administration Officer

co-ordinates the in-kind contribution process and provides administrative support to the CEO and management team. As well as co-ordinating the Program Manager's and Research Leaders' meetings, Sarah provides administrative support to the Enterprise Development Director and Communication Coordinator in terms of office administration and the co-ordination of ACID events.

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PROGRAM MANAGERS

The ACID Program Managers oversee the overall direction, management and reporting of the research programs and projects. They meet with key ACID management on a weekly basis.

Sam Bucolo, Smart Living Program, Queensland University of Technology

has worked on and managed a broad range of national and international projects for government and commercial organisations. He has published widely within the field of emerging design tools and evaluation of virtual environments. Current research relates to the field of Ambient Intelligence and Ubiquitous Computing as applied to emergent tangible interfaces and consumer devices.

Dr Andrew Brown, Digital Media Program, Queensland University of Technology

is an expert in computer music and creativity with technology. Andrew has experience and interest in supporting creativity and design with digital tools and in the application of contemporary technology to education and artistic practice. Andrew is an active composer of computer music and a builder of software instruments; he is the co-author of the jMusic composition library for the Java computer language; jMusic is used around the world for music software development and computer music education. For the past three years Andrew served as the president of the Australasian Computer Music Association.

Dr Stephen Viller, Multi-User Environments Program, University of Queensland

is an expert on methods for understanding human interaction to inform the design of technology, particularly within the fields of computer supported cooperative work and ubiquitous and mobile computing. He has a Bachelor degree in Computation, a Masters degree in Cognitive Science and a PhD in Computing (Human Factors in Requirements Engineering). He co-chaired the 2003 Australian conference on human-computer interaction (OzCHI2003).

James Hills, Virtual Heritage Program, SGI

has worked on a broad range of IT projects and has extensive experience in concept development and project management of large multimedia and simulation projects, particularly in the development and application of Virtual Reality to the areas of training, simulation and scientific discovery. James has an IT and Electrical Engineering background and provides an industry perspective to ACID projects and activities.

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1. Professor Jeff Jones
2. Sonya Henderson Edbrooke
3. Frank Chalmers
4. Gavin Winter
5. Kelina Miller
6. Sarah Jordan
7. Sam Bucolo
8. Dr Andrew Brown
9. Dr Stephen Viller
10. James Hills
11. Michael Docherty
12. Professor Stuart Cunningham
13. Keith Bradbury
14. Storm Griffin
15. Professor Greg Hearn
16. Dr Margot Brereton
17. Professor Mark Burry
18. Dr Mark Billinghurst
19. Professor Duane Varan
20. Paul Cleveland

EDUCATION PROGRAM

The Education Program team is responsible for implementing the research education program that integrates students into the ACID organisation and its projects. Key members meet on a weekly basis, with formal quarterly meetings covering a range of strategic issues.

Michael Docherty, Education Program Director, University of Queensland

is working on projects in media spaces and learning environments. He has researched and published in the areas of Computer Supported Collaborative Design, computer based 'Discovery Environments' and Studio based teaching of IT and has established an international reputation through recent works on design studies and collaborative learning. This research has important implications for the usability of new information environments and design of information services. A large part of his recent career has been focussed on developing the B.Information Environments degree (commenced 1999), the B. Multimedia Design degree (commencing 2003) and to developing and teaching new courses.

Professor Stuart Cunningham, Education Co-Manager, Queensland University of Technology

Stuart Cunningham is an accomplished researcher and the author of some of Australia's most influential works in media, communication, cultural studies and policy. Alone and in collaboration, he has published 12 books and monographs, more than 40 chapters and entries and 70 journal articles.

Keith Bradbury, Education Co-Manager, Griffith University

is Deputy Director (Research) of the Queensland College of Art at Griffith. His research interests include animation history and theory, western art and Queensland art and culture. Keith is a member of Queensland Animators and the Society of Animation Studies. From 1996, Keith has been involved with a tourism development project at Bourke in north-west New South Wales as Project Manager (Visuals). More recently, he has enrolled as a PhD candidate in Politics and Public Policy. His topic is "A Political Economy of Australian Animation".

Storm Griffin, Education Coordinator, University of Queensland

is engaged in the operational aspects of ACID's education program, student liaison, scholarship and seminar organisation, as part of The University of Queensland's in-kind contribution to ACID. Storm has been with UQ for 16 years in various roles that encompass facilities management, project management of a collaborative software development project and marketing coordination and development of promotional materials for UQ's first design-based IT degree. Storm currently fulfils the role of Research and Special Projects Officer within the Information Environments Program at UQ.

RESEARCH LEADERS

The ACID Research Leaders contribute to monitoring and guiding the strategic direction of the ACID organisation and its projects. They meet on a fortnightly basis by teleconference with key ACID Management.

Professor Greg Hearn, Queensland University of Technology

is Associate Professor and Director of New Research Initiatives at the Faculty of Creative Industries at QUT. Over the last ten years, his consulting and research has focused on the future cultural impacts and opportunities of global communication networks for organisations and communities. He was a consultant to the Broadband Services Expert Group, the national policy group which formulated Australia's foundation framework for the information superhighway in 1994. As well, he has been involved in high level consultancy and applied research with organisations including British Airways and many Australian government agencies, focusing on adaptation to new media technologies. He has been a visiting fellow in both the United Kingdom and the United States and his research is published widely in both books and journals.

Dr Margot Brereton, University of Queensland

is recognised for her work in several fully refereed published papers on the role played by objects in supporting thinking processes (phenomenology, embodied cognition, interaction design). She also designed and built a magnetic bearing prototype for the NASA space infrared telescope facility SIRTF, a low resolution toy FAX machine for children and has designed a variety of industrial machinery. She worked as an engineer for five years at Rolls Royce aircraft engines. Dr Brereton has both extensive experience in smart electro-mechanical product design and in observational analysis. She trained in observational analysis at XEROX PARC and the Institute for Research on Learning in Palo Alto. Her primary interests are in human centred design and interaction design for ubiquitous computing environments.

Professor Mark Burry, RMIT University

is director of RMIT's state-of-the-art Spatial Information Architecture Laboratory, which has been established as a holistic interdisciplinary research environment dedicated to almost all aspects of contemporary design activity. The laboratory focuses on collocated design research and undergraduate and postgraduate teaching with associated advanced computer applications and the rapid prototyping of ideas. The laboratory also has a design-practice emphasis and acts as a creative think-tank accessible to both local and international practices, including ARUP in Melbourne and London, dECOi in Paris and Gehry Partners in Los Angeles. Mark Burry is visiting Professor at Liverpool University (UK) and Honorary Professor at Deakin University (Australia). In 2003 he was Visiting Professor in Architecture at MIT (USA). In 2004 he was appointed to the Advisory Board for Gehry Technologies.

Dr Mark Billinghurst, HITLabNZ/University of Canterbury

is a researcher developing innovative computer interfaces that explore how virtual and real worlds can be merged to enhance face-to-face and remote collaboration. Director of the Human Interface Technology Laboratory (New Zealand) and a research scientist at the HIT Lab (US) in Seattle, he has produced over 80 technical publications and his work has been demonstrated at a wide variety of conferences. He is active in several research areas including Augmented and Virtual Reality, wearable computing and conversational computer interfaces. He has previously worked at ATR Research Labs in Japan, British Telecom's Advanced Perception Unit and the MIT Media Laboratory. One of his research projects, the MagicBook, was winner of the 2001 Discover award for best Entertainment application.

Professor Duane Varan,
Murdoch University

is the Director of the Interactive Television Research Institute and holds the inaugural Chair in New Media at Murdoch University. Professor Varan is recognised as a global innovator in iTV applied research and as one of Australia's foremost authorities on digital communication and marketing. Within the industry he is viewed as among the world's leading academics in the field. He has presented at conferences in the UK, USA, Spain, Portugal, Singapore, Hong Kong, New Zealand and throughout Australia. He has also provided iTV consulting and training services for a range of high-profile international clients, including Saatchi & Saatchi, Leo Burnet, FCB, Singtel Optus, TV Cabo, Nike and Pizza Hut.

Paul Cleveland,
Griffith University

has a background in graphic design and experience in marketing, promotions and digital media. Paul's research interests include the evolution of design style and its application into the development of new tools for designers. His PhD, on the topic of technology and its influence on style generation, is currently under examination. Paul is at present engaged in examining methods for the rapid generation of design layouts based on stylistic models and the application of artificial intelligence systems for saliency and face detection and eye tracking to further refine the process of extracting design solutions. He is also working on the implementation of a generative animation system which uses algorithms to control real time animated characters in a games environment. Paul is a member of the Australian Graphic Design Association and the Design Institute of Australia.

RESEARCH REVIEW COMMITTEE

Research projects are reviewed and approved by the Research Review Committee. The Committee is chaired by an industry participant and made up of nominees of ACID's research leaders and industry participants, along with the Research Director (CEO up to year 3) and the Enterprise Development Director as required. The Research Review Committee is responsible for the review and approval of project application proposals, as well as the reporting of the project application outcomes through the CEO to the Board.

Round 1 – Commenced September 2003

- Chair: Jeff Jones, ACID
- Brett Leavy, CyberDreaming
- Graham Edelsten,
  Auran and John Banks as nominee of Graham Edelsten, Auran
- Todd Churchward,
  SGI as nominee of Gary Eves
- Greg Hearn,
  Queensland University of Technology
- Margot Brereton,
  University of Queensland
- Mark Burry, RMIT University
- Secretary: Kelina Miller, ACID

Round 2 - Commenced February 2004

- Chair: Jeff Jones, ACID
- Victoria Lynn, Australian Centre for the Moving Image
- Julie Harris, Brisbane City Council
- Keith Bradbury, Griffith University
- Duane Varan, Murdoch University
- Mark Billinghurst, HitLabNZ
- Secretary: Kelina Miller, ACID

VISITING FELLOWS AND ADJUNCT PROFESSORSHIPS

- John Banks, visiting fellow in the Creative Industries Research and Applications Centre, QUT
- James Hills, visiting fellow in the Creative Industries Research and Applications Centre, QUT
- Jeff Jones, adjunct Professor in the Creative Industries Research and Applications Centre, QUT

NODE COORDINATORS

Node Coordinators form vital links within each ACID Shareholder Organisation. They help facilitate the coordination and promotion of ACID related activities amongst members of their organisation. As part of ACID's Commonwealth obligations, the Node Coordinators also assist with advice on, and responsibility for reporting and updating in-kind contributions.

A work in progress for 2003/2004 has been the ACID Node Coordinators Handbook; compiled by Sarah Jordan and Sonya Henderson Edbrooke. The Handbook seeks to inform the wide range of information requirements for the ACID Nodes across our distributed organisations and will become a valuable resource for ACID members. Our thanks go out to the following people for their fabulous assistance:

- Murdoch University -
  Tim Morrison
- University of Queensland -
  AM Simon-Mayer, Tina McLeod
- Griffith University -
  Mary Meadowcroft, Jason Elsmore
- RMIT - Adrian Bruch,
  Leigh Peterson
- QUT - Chris Shannon,
  Tracy Mitchell, Jodi Rapley,
  Alycia Johnston
- HitLab Canterbury NZ -
  Mark Billinghurst
- ACMI - Michelle Carey
- QANTM - Rod Sims
- SGI - James Hills, Nick Conomo
- Auran - Graham Edelsten,
  John Banks
- Heritage Pacific - Alana Wilson
- Cyberdreaming - Brett Leavy

TECHNOLOGY TRANSFER

Technology transfer is a vital part of ACID's core business; delivering and sharing knowledge and know-how to key stakeholders via specific training, seminars and workshops.

Most Technology Transfer outcomes are scheduled to commence within the 2004-05 financial year. However the beginnings of external training opportunities commenced with the inaugural ACID Innovation Forum. This was initially an internal event, with future plans to look outwards to a vast community of professionals in an effort to engage and share knowledge via workshop and seminar opportunities related to ACID project outcomes.

The first ACID Innovation Forum was held in May 2004. The day was a structured but relatively informal discussion with nearly 100 people attending from all of our partner organisations nationally. Opening discussions commenced with an update on projects, the current funding round and on issues of building capacity around our current research priorities.

The afternoon then launched into two lively Panel discussions MC'd provocatively by both Dr Terry Cutler and Jeff Jones. Panellists included ACID industry partners and the ACID Research Leaders, with discussions centring around current project direction and outputs, ACID capabilities and the international profile of ACID as an organisation. Katherine Woodthorpe, ACID's guardian and highly regarded 'Visitor' then took on the challenging task of pulling together discussions about ACID priorities and reminded us to be strategic with our limited and precious resources. It was an impressive display of people focused and collaborative; and thinking hard about the near future of ACID; a successful and productive Innovation Forum; the first of many.

Design Registration Pending
ACID GESTURE RECOGNITION DEVICE

"WHO THE HELL WANTS TO HEAR ACTORS TALK?"

H.M. Warner, Warner Bros, 1927

COMMERCIALISATION

ACID is very involved with its industry participants and university researchers in understanding the broad technology environment in which it operates. Due to the fast-moving nature of the Creative Industries and the rapid deployment and uptake of new software and hardware from both industry and consumers, it is imperative that ACID capitalises on opportunities to commercialise research outcomes as early as possible. With a dedicated Enterprise Development Director, ACID is strongly placed to provide a fully integrated approach to the assessment of commercialisation opportunities.

As a result of the first few months of projects being underway at least 12 commercial opportunities have been identified and include patent and design applications. This is 12 months in advance of what was originally forecast in ACID's initial business plan.

ACID's commercialisation strategy is based on two tenets: ACID researchers understanding the commercialisation process and the utilisation of market specific commercialisation processes. The IP management strategy is fully integrated into ACID's research management processes and includes:

- Projects reviewed on a quarterly basis;
- Deliverables reviewed and intellectual property assessments made at each quarterly review; and
- A Prospectus developed for each piece of IP to assess and track its commercial potential through the remainder of the research and development process.

Research Users	Association	Project	Project Activities	Key Researchers
Auran Technologies SGI	Core participant Core participant	Citadel	1. A software tool for implementing multi-user applications; MUE application framework & design specification.	John Banks (Auran), Stephen Viller (UQ), Ian McColl (UQ), Mark Billinghurst (HITLabNZ), Mark Burry (RMIT), Andrew Brown (QUT), Barbara Atkins (QUT), Chris Barker (QUT)
Heritage Pacific	New core participant	Virtual Community Development	2. A software tool for master planned communities allowing the integration of content, mobile devices and online ICTs; for applications that require virtual and location-specific components.	Sam Bucolo (QUT), Brian Hay (Construct 3D)
QANTM Pty Ltd Auran Technologies	Supporting participant Core participant	The Media Station	3. A software tool for implementing multi-user, eLearning applications; content and methodology demonstrators.	Michael Docherty (UQ), Stephen Viller (UQ), John O'Toole (Griffith), Peta Wyeth (UQ), Jude Smith (QUT), Ann Morrison (UQ), Gavin Sade (QUT), Julie Dunn (Griffith), Michael Dezuanni (QUT), Barbara Atkins (QUT), Cathie Sherwood (Griffith)
ACMI	Supporting participant	Interactive Lounge	4. Gesture device prototypes, multi-user content; procedures for analysing human-interaction requirements; IP & commercial partners.	Duane Varan (Murdoch), Andrew Turk (Murdoch), Sam Bucolo (QUT), Debra Polson (QUT), Margot Brereton (UQ), Adam Postula (UQ), Brian Lovell (UQ)
Kelvin Grove Urban Village Hornery Institute QLD Dept of Public Housing	Sponsors	Connected Communities	5. Context-aware device demonstrator, engineering specifications and methodology for implementing a smart, connected, master-planned urban community.	Mark Burry (RMIT), Stephen Pincus (QUT), Peter Lavery (QUT), Neil Bergman (UQ), Ljubo Vlacic (Griffith), Sam Bucolo (QUT), Adam Postula (UQ), Duncan Campbell (QUT), Ian McColl (UQ), Andrew Wilson (QUT), Dianne Smith (QUT), Jeremy Yuille (RMIT), Lawrence Harvey (RMIT)
Auran Technologies SGI	Core participant Core participant	Dynamic Content	6. Dynamic media content APIs/ plug-in to software IDEs; new software tools for creating music, animation, textures, 3-D structures; IP licenses.	Andrew Brown (QUT), Greg Hooper (QUT), Dan Mafe (QUT), Keith Armstrong (QUT), Paul Cleveland (Griffith), David Atkinson (RMIT), Zane Trow (QUT), Ralph Muhlberger
SGI	Core participant	Digital Songlines	7. Rapid software application development tools for multi-platform 3-D content; content demos and sponsors.	James Hills (SGI), Dr John Hayes (QUT), Angelina Russon (QUT), Chria Barker (QUT), Dianne Eden (QUT), Leonard Meenach (QUT), Kathryn Trees (Murdoch), Michael Broderick (Murdoch)
Brisbane City Council	Supporting participant	Location Based Games	8. A game demo that activates "transactions" in a real place through GPS, mobile phones (PDAs), and an online 'world'; content demos and sponsors.	Debra Polson (QUT), Barbara Atkins (QUT), Sam Bucolo (QUT), Ian McColl (UQ), Mathew Simpson (UQ)

- The Prospectus is expanded to develop:
  - Market Research
  - Competitive Advantages
  - Potential IP buyers
  - Risk
  - Business/Commercialisation Models
  - Marketing Strategy
  - Budget to complete prototype
  - Revenue streams
- Commercialisation Strategies include:
  - Licensing IP to partners and third parties;
  - Sale of IP to third parties; and
  - Spin-offs for sustainable, regenerative IP.
- Commercialisation budgets may be created when a:
  - Research project is transferred to a Development project for the creation of prototypes;
  - Prototype is developed by a dedicated ACID Development Team; and
  - Prototype budget is expanded to include costs for a full IP protection/marketing/sales strategy.

Several of the companies in the SME Consortium have been involved with researchers in putting forward project applications. Their involvement is key to understanding the needs of the industry as the majority of companies in the Creative Industries are micro to SME sized organisations. In the next financial year ACID is planning to develop a more formal SME organisation, expanding the concept into the other capital cities where ACID nodes are located.

Research Users	Association	Project	Project Activities	Key Researchers
ACID Blue Rocket Productions Roving Stage Productions	For new third party interest Sponsor Sponsor	ACID Development: Mobile Entertainment	9. Mobile R&D capacity to capture opportunities presented by Australian content producers and global content aggregators.	Sam Bucolo (QUT) Mark Billinghurst, (HITLabNZ)
Lake Technologies	Sponsor	Audio Spatialisation	10. Software requirements specification for a multi-device audio spatialisation software layer appropriate for use by sound designers.	Andy Arthurs (QUT), Andrew Brown (QUT), Greg Hooper (QUT), Paul Doornbusch (RMIT), Lawrence Harvey (RMIT)
ACMI	Supporting participant	Australasian Creative Industries Network	11. Procedures for achieving low-latency over high-speed networks; Procedures for commissioning creative work in co-located facilities; technical white-paper.	Peter Lavery (QUT), Stephen Viller (UQ), Graham Kerr (QUT), Keith Armstrong (QUT), Jill Stanfield (QUT), Nigel Oram (QUT), Mark Billinghurst (HITLabNZ), Pia Ednie-Brown (RMIT), Mark Burry (RMIT), Jamie Maddem, Leon van der Graff
ACID ToadShow UQP room40.org	For new third party interest Sponsor Sponsor Sponsor	ACID Press	12. Multiplatform publishing system and associated methodology; provides peer review context for researchers engaged in creative practice.	Stuart Cunningham (QUT), Axel Bruns (QUT), Liz Ferrier (UQ), Steve Dillon (QUT), Richard Vella (QUT), Peta Mitchell (UQ), Robert Davidson, Lawrence English (room40.org), Stuart Glover (QUT)
ACID	For new third party interest	Collaboration Tools	13. Procedures for implementing collaborations in multi-user applications; collaboration "know-how".	Ian McColl (UQ), Stephen Viller (UQ), Andrew Burrow (RMIT), Jeremy Yuille (RMIT), Axel Bruns (QUT)
iMAP	New core participant	Innovation Platform (iMap)	14. Web based innovation management software & methodologies.	TBD
ACMI Brisbane City Council	Supporting participant Supporting participant	Communities & Places	15. Methods of mobilising local place-based activity enabled by mobile/online technologies; Site/community analysis "handbook.	Margot Brereton (UQ), Ian McColl (UQ), Stephen Viller (UQ), Mark Billinghurst (HITLabNZ), Marilyn Lim (HITLabNZ), Richard Green (HTLabNZ), Stephanie Hemelryk Donld (UTS), Sam Bucolo (QUT), Mark Burry (RMIT), Gregory More (RMIT), Yamin Tengono (RMIT), Glenda Nalder (Griffith)
SGI	Core participant	Lightweight Stereo Glasses	16. Feasibility for applied research to design LCD shutter glasses required for active stereo virtual reality applications; Market and technical analysis.	James Hills (SGI), Sam Bucolo (QUT)

RESEARCH

In 2003-04 ACID established a systematic approach to identifying core competencies and fostering the growth of identified R&D strengths.

ACID'S R&D PRIORITIES

The strategic direction of ACID was founded on the research priorities of its industry participants identified during the establishment period. These priorities have been met by research applications which utilise researchers from university and industry participants. Research priorities are based around end-user devices, community engagement methods and multi-platform software libraries. The priorities established for Round one have been expanded for Round two to focus on "Mobile and online multi-user applications."

FOCUS MECHANISMS

While the overall strategic direction of ACID is found within its research programs, Smart Living, Digital Media, Multi-user Environments and Virtual Heritage, core competencies are emerging through the original cross-cutting research themes – Human Interactive Systems, Tools and Creative Expression, Community Networks and Creative Capital and Commercialisation. ACID's current priority on identifying and growing core competencies will continue through the next two project rounds. By the time Round five commences in mid-2005 ACID expects to be proactively commissioning capacity and projects rather than continuing on the funding agency model. These adjustments over time provide a focused approach to developing new IP and seeking new partners/sponsors and contract research.

MATRIX OF RESEARCH THEMES AND PROGRAMS

	Industry-Sponsored Research Programs			
Research Themes	Smart Living	Digital Media	Multi-User Environments	Virtual Heritage
Human Interactive Systems	Devices & Access	Convergence	Modes of Interaction	Immersive Systems
Tools and Creative Expression	Content Production	New Interaction Genres	eLearning and Games	Cultural Conservation
Community Networks	Consumption & Distribution	P2P vs. Broadcast	Multi-user Interaction	Access and Availability
Creative Capital and Commercialisation	Sustainable Business Models	New business Models	Multi-platform Convergence	Sustainable Distribution

EMERGING CORE COMPETENCIES

PREDICTED CORE COMPETENCIES

Based on researcher response to the initial research priorities, core competencies are emerging in the development of:

- Devices to develop human interaction prototypes;
- Content to demonstrate multi-user applications;
- Publishing and Consultancy for community engagement methods; and
- Market intelligence to establish new models of sustainable/feasible commercialisation.

The continued development of competencies in these areas is predicted to continue through 2005.

These predicted core competencies and requirements of industry participants are based on the following analysis of current project outputs.

Core Focus	New forms of human interaction with emerging content technologies				
Research Theme	Human Interactive Systems	Tools & Creative Expression	Community Networks	Creative Capital & Commercialisation	
Requirements	End-user devices	Multi-platform software libraries	Publications & training materials	Market intelligence & requirement specs	Outputs
Research Competencies	Human Interface Prototypes	Content demonstrators	Community engagement methods	Models of sustainability	Mobile & online multi-user applications
(priority) **IP Foundations (Demonstrators)**		**Citadel (Multi-User Environments Program)**			1. A software tool for implementing multi-user applications; **MUE application framework & design specification.**
		Virtual Community Development (Multi-User Environments Program)			2. **A software tool** for master planned communities allowing the integration of content, mobile devices and online ICTs; for applications that require virtual and location-specific components.
	(2) Interactive Lounge (Smart Living Program)				3. Gesture device prototypes, multi-user content; procedures for analysing human-interaction requirements; **IP & commercial partners.**
	Connected Communities (Smart Living Program)				4. Context-aware device **demonstrators,** engineering **specifications** and **methodology** for implementing a smart, connected, master planned urban community.
		(3) Dynamic Content (Digital Media Program)			5. Dynamic media content APIs/plug-in to software IDEs; new software tools for creating music, animation, textures, 3-D structures; **IP licenses.**
		(4) Digital Songlines (Virtual Heritage Program)			6. Rapid software application development tools for multi-platform 3-D content; **content demos and sponsors.**

EMERGING CORE COMPETENCIES (cont'd)

Core Focus	New forms of human interaction with emerging content technologies				
Research Theme	Human Interactive Systems	Tools & Creative Expression	Community Networks	Creative Capital & Commercialisation	
Requirements	End-user devices	Multi-platform software libraries	Publications & training materials	Market intelligence & requirement specs	Outputs
Research Competencies	Human Interface Prototypes	Content demonstrators	Community engagement methods	Models of sustainability	Mobile & online multi-user applications
(priority) IP Foundations (Demonstrators)		Location Based Games (Smart Living Program)			7. A game demo that activates "transactions" in a real place through GPS, mobile phones (PDAs) and an online 'world'; **content demos and sponsors.**
		ACID Development: Mobile Entertainment (ACID Internal)			8. Mobile R&D capacity to capture opportunities presented by Australian content producers and global content aggregators.
		Audio Spatialisation (Digital Media Program)			9. **Software requirements** specification for a multi-device audio spatialisation software layer appropriate for use by sound designers.
Showcase	Australasian Creative Industries Network (Multi-User Environments Program)				10. Procedures for achieving low-latency over high-speed networks; Procedures for commissioning creative work in co-located facilities; **technical white-paper.**
		ACID Press (ACID Internal)			11. Multiplatform publishing system and associated methodology; provides peer review context for researchers engaged in creative practice.
Methodology Foundations (People Research)		Collaboration (Multi-User Environments Program)			12. Procedures for implementing collaborations in multi-user applications; **collaboration "know-how".**
		Innovation Platform (iMap) (ACID Internal)			13. Web based innovation management **software & methodologies.**
			Communities & Places (Smart Living Program)		14. Methods of mobilising local place-based activity enabled by mobile/online technologies; **Site/community analysis 'handbook'.**
Feasability Studies	Lightweight Stereo Glasses (Smart Living Program)				15. Feasibility for applied research to design LCD shutter glasses required for active stereo virtual reality applications; **Market and technical analysis.**
	Audio Spatialisation (Digital Media Program)				16. Demo new applications of 3-D audio technologies; **New participant development.**
		The Media Station (Digital Media Program)			17. **A software tool** for implementing multi-user, eLearning applications; content and methodology demonstrators.

SMART LIVING PROGRAM

Program Manager –
Sam Bucolo, QUT

INTERACTIVE LOUNGE

will develop and explore a range of approaches to facilitating more engaging interaction between viewers and digital content.

During the first stage, exhibition prototypes of a range of interface devices, will be built, evaluated and integrated with new navigation interfaces and interactive content formats.

This will be facilitated across four parallel streams of activity, focusing on the different aspects of the necessary holistic solution including interface devices, navigation interfaces, content formats and evaluation.

Project Leader:
Professor Duane Varan,
Murdoch University

Project Team			
University	**Industry**	**Students** **PG = Postgraduate** **UG = Undergraduate**	**Research Assistants**
Dr Andrew Turk	Mike Stubbs	Jared Donovan - PG	Marcos Caceres
Sam Bucolo	Kim Montgomery		Corin Edwards
Debra Polson	Gael McIndoe		Ting Shan
Dr Margot Brereton	Victoria Lynn		
Dr Adam Postula			
Asc.Prof. Brian Lovell			

COMMUNITIES & PLACES

will investigate how to develop and deploy combinations of mobile and fixed technologies to support new forms of community and sustained community use.

Outcomes will be commercialisable software applications and demonstrators, leading to sustainable communities and a healthier economy. The project will take an integrated approach to community exploration and technology exploration using participatory design methods to ensure that appropriate technologies are identified to meet community needs and aspirations.

Project Leader:
Dr Margot Brereton, UQ

Project Team			
University	**Industry**	**Students** **PG = Postgraduate** **UG = Undergraduate**	**Research Assistants**
Ian MacColl	Kim Montgomery	Kieran Bartlett - PG	
Dr Stephen Viller	Cory Stewart	Clint Heyer - PG	
Prof. Mark Billinghurst	Lynn Pennefather	Fiona Redhead - PG	
Marilyn Lim	Thom Saunders	Marcus Foth - PG	
Dr Richard Green		Jeff Axup - PG	
Prof. Stephanie Hemelryk Donald			
Sam Bucolo			
Prof. Mark Burry			
Greg More			
Yamin Tengono			
Dr Glenda Nalder			

LOCATION BASED GAMES

will develop a 'location based game' for Fortitude Valley that uses combinations of mobile technologies and devices and an online environment. The game will emphasise backpacker tourists, youth, international students and emerging creatives in 'The Valley' and surrounding areas. Levels of game play will account for the transient nature of backpackers, profile Creative Industries and create a model for new business opportunities that sustain the game and associated activity.

Project Leader:
Deb Polson, QUT

Project Team			
University	**Industry**	**Students** **PG = Postgraduate** **UG = Undergraduate**	**Research Assistants**
Dr Barbara Adkins	Cory Stewart	Lorna MacDonald - PG	Gavin Sade
Sam Bucolo	Lynne Pennefather		Ann Morrison
Ian MacColl	Gavin Winter		Eryn Grant
Matthew Simpson	Paul Holland		Stuart Fraser
	Prof. Jeff Jones		Bea Lam

LIGHTWEIGHT STEREO GLASSES

will develop a user centred set of LCD based shutter glasses for use in active stereo virtual reality applications. The project will undertake applied research to ensure that usability related issues and maximising user presence is addressed. However before this broader research can be undertaken, a detailed business case will need to be developed. This application relates to a research planning study to develop this business case only.

Project Leader:
James Hills, SGI

Project Team			
University	**Industry**	**Students**	**Research Assistants**
Sam Bucolo	James Hills		

MOBILE ENTERTAINMENT

will establish the R&D capacity required to work as R&D contractor to content producers and mobile content aggregators. This project comprises elements of existing commercial developments. In order to get them to market, these developments require the R&D capacity provided in this research project. Additionally the project will also document the business relationships between high-end content producers and mobile content aggregators and identify whether there are opportunities for ACID to create a 'niche' position between them as an R&D company.

Project Leader:
Sam Bucolo, QUT

Project Team			
University	Industry	Students	Research Assistants
Sam Bucolo	David Gurney		
Prof. Mark Billinghurst	Alicia Rackett		
	Ivanka Hannenberger		

CONNECTED COMMUNITIES

are about Master Planned Communities that are emerging as a leading market for integrated online/mobile content. Specific characteristics of these Greenfield developments make them particularly attractive for integrated, high-end networks and content. Many property developers are interested in "future-proofing" the home and this project seizes an opportunity for testing new devices and services in the context of integrating ICT deployment with community development strategies to form a unique definition of "smart community." ACID is based within the Creative Industries Precinct and is establishing a significant ICT presence to service its own project development. This will greatly enhance plans by KGUV for ICT Infrastructure to create significant interactive links with the surrounding community.

Project Leader:
Professor Mark Burry, RMIT

Project Team			
University	Industry	Students PG = Postgraduate UG = Undergraduate	Research Assistants
Prof. Mark Burry	David Jackson	TBD	
Stephen Pincus	Kate Meyrick		
Prof. Peter Lavery	Ian Kaye		
Prof. Neil Bergmann			
Prof. Ljubo Vlacic			
Sam Bucolo			
Dr Adam Postula			
Dr Duncan Campbell			
Ian McColl			
Andrew Wilson			
Dr Dianne Smith			
Jeremy Yuille			
Lawrence Harvey			

MULTI-USER ENVIRONMENTS PROGRAM

Program Manager –
Dr Stephen Viller, UQ

CITADEL

will develop a software platform to enable research projects across ACID and create valuable commercialisation opportunities. Its initial development will mobilise a community of researchers to define and develop a collaborative research platform for use throughout ACID. A steering group will define best practice participatory design processes, implement test-bed research initiatives and publish a software engineering specification for a technology platform to inform development of a product demonstration. Overall this project will also identify legal and IP issues in development and management of massive multi-user collaborative-participatory online communities and environments.

Project Leader:
John Banks,
Auran Technologies

Project Team			
University	**Industry**	**Students** **PG = Postgraduate** **UG = Undergraduate**	**Research Assistants**
Dr Stephen Viller	Prof. Jeff Jones	Keiran Bartlett - PG	
Chris Denaro	Frank Chalmers	Penny Drennan - PG	
Ian MacColl	Greg Lane	Penny Sweetser - PG	
Prof. Mark Billinghurst	Kerry Hemsley	Eryn Grant - PG	
Prof. Mark Burry	James Hills	Chris Deniro - PG	
Dr Andrew Brown	Gavin Winter		
Dr Barbara Adkins			
Chris Barker			

COLLABORATION

will drive development of ACID as a distributed organisation and thus research and develop interactivity in communities-of-practice that span multiple disciplines and locations. The project will identify, define, describe, design, develop, select, deploy and evaluate processes to support research collaborations within ACID. Emphasising a community-of-practice approach rather than a technology-focused approach, it will develop collaborative tools and processes, then attempt to quantify the effectiveness of ACID as a distributed entity. The research will be grounded by a reflective, "live the dream" approach that favours robust and practical outcomes.

Project Leader:
Ian MacColl, UQ

Project Team			
University	**Industry**	**Students**	**Research Assistants**
Dr Stephen Viller	Rod Sims		Roslyn Cooper
Andrew Burrow	Gavin Winter		Markus Rittenbruch
Jeremy Yuille	Frank Chalmers		
Dr Axel Bruns			
Dr Angelina Russo			

MULTI-USER ENVIRONMENTS PROGRAM

AUSTRALASIAN Creative Industries NETWORK

will research and develop collaborative tools and methods to create an Australasian online community of shared work, exhibitions and real-time events. It will meet a need to establish regular contacts with participants in the CRC activities, to ensure CRC research is experienced and understood nationally and internationally. In particular it seeks to explore the co-location of streaming media content.

A new creative work will be produced that draws upon the embodied knowledge integral to several experimental performance forms in order to develop specific interface design and experience scenarios. We will also draw upon the bodily knowledge of the Science of Human Movement and gestural control. This will involve the creation of devices and means for communication that avoid the mouse-computer interface paradigm.

Project Leaders:
Professor Peter Lavery, QUT,
Dr Stephen Viller, UQ

Project Team			
University	**Industry**	**Students** **PG = Postgraduate** **UG = Undergraduate**	**Research Assistants**
Dr Graham Kerr	Victoria Lynn	Inger Mewburn - PG	
Dr Keith Armstrong	Mike Stubbs	Pia Ednie-Brown - PG	
Jill Stanfield	Kim Montgomery	Jamie Madden - PG	
Nigel Oram	David Watson		
Prof. Mark Billinghurst			
Pia Ednie-Brown			
Prof. Mark Burry			
Leon van de Graaff			

DIGITAL MEDIA PROGRAM

Program Manager –
Dr Andrew Brown, QUT

DYNAMIC CONTENT

will develop methods, processes and tools to enable creation of dynamically varying content for digital media. Specific domains of activity will include dynamic music, behavioural animation, procedural textures and interactive structure and navigation.

All dynamic content domains will develop technologies that employ algorithmic processes informed by the fields of arts theory and practice, studies in cognition, artificial life and artificial intelligence. This project will develop understandings and technologies that will add value to many other ACID research and development efforts.

Dynamic content elements will be semi-automatic in their realisation and will often involve improvisational changes over time. This project will investigate how best to create dynamic content elements and tools, how people interact with these.

Project Leader:
Dr Andrew Brown,
QUT

Project Team			
University	Industry	Students PG = Postgraduate UG = Undergraduate	Research Assistants
Dr Greg Hooper	John Banks	Steven Livingstone - PG	Craig Gibbons
Dan Mafe	James Hills		Miriam Hochwald
Dr Keith Armstrong	Greg Lane		Andrew Sorensen
Paul Cleveland			
David Atkinson			
Asc.Prof. Zane Trow			
Dr Ralf Muhlberger			

AUDIO SPATIALISATION

will develop a real-time delivery platform that will enable sound designers and composers to easily implement complex audio spatialisation strategies. This will culminate in the production of a virtual "Spatialisation surface" (a spatial equivalent of a mixing control board) which will serve as a model for subsequent proprietary products. In achieving this aim, enabling technologies will be developed which include a new library of audio spatialisation elements, an interchange format that can become an industry wide standard for representing spatialisation elements and implementations of a software engine on developing ACID platforms.

This project is significant because nowhere else have all the aspects of audio spatialisation, interaction design and sound design knowledge been brought together into an integrated system that uses an abstract representation layer to logically separate audio spatialisation actions and intentions from hardware implementation.

Project Leader:
Professor Andy Arthurs,
QUT

Project Team			
University	Industry	Students PG = Postgraduate UG = Undergraduate	Research Assistants
Dr Andrew Brown	Chris Bennett	TBD	TBD
Dr Greg Hooper	John Banks		
Paul Doornbusch	James Hills		
Lawrence Harvey	Chris Gilbey		

THE MEDIA STATION

is a feasibility study that will explore the possibilities and potentials of the use of ACID's Citadel platform to assist learning. It does this by proposing a learning environment called the Media Station. The Media Station will be a virtual reality learning environment for the creation and distribution of art, entertainment and information in media-rich forms. It is a creativity playground that includes tools and materials for creating and distributing media content. It will be a multi-player world and have shared and individual 'spaces' with tools to design, build and decorate those spaces. The Media Station will include production studios, individual work spaces, facilities for broadcast, narrowcast, exhibition and download and spaces for meeting and socialising.

Project Leader:
Michael Docherty,
UQ

Project Team			
University	Industry	Students PG = Postgraduate UG = Undergraduate	Research Assistants
Michael Docherty	Auran Technologies	TBD	TBD
Dr Steve Dillon	QANTM		
Prof. John O'Toole			
Peta Wyeth			
Jude Smith			
Ann Morrison			
Gavin Sade			
Dr Julie Dunn			
Michael Dezuanni			
Dr Barbara Adkins			
Cathie Sherwood			

ACID PRESS

will addresses a number of current concerns in the areas of commercial on-demand publishing, academic publishing and interaction design. Whilst this proposal focuses on the first phase of the project, subsequent phases of ACID Press will be shaped through analysis of the interaction between stakeholders as discovered in phase one and on this basis expand the AP framework to develop a fully formed on-demand multiplatform publishing organisation.

Project Leader:
Professor Stuart Cunningham,
QUT

Project Team			
University	Industry	Students	Research Assistants
Prof. Stuart Cunningham	TBD		Angi Buettner
Dr Axel Bruns			
Dr Liz Ferrier			
Dr Steve Dillon			
Prof. Richard Vella			
Dr Peta Mitchell			
Lawrence English			
Stuart Glover			

VIRTUAL HERITAGE PROGRAM

Program Manager –
James Hills, SGI

Project Leaders:
Brett Leavy, CyberDreaming &
James Hills, SGI

Project Team			
University	Industry	Students PG = Postgraduate UG = Undergraduate	Research Assistants
Sam Bucolo	Gerald Hofer	Stef Gard - PG	Joti Carroll
Dr John Hayes	Gary Eves	Frank Rijavec - PG	
Dr Angelina Russo	Wayne Wharton	Mia Thornton - PG	
Chris Barker	Frank Chalmers	Michael Gilvonio - UG	
Dianne Eden	Prof. Jeff Jones	Joe Bryant - UG	
Leonard Meenach	Gavin Winter	Vicki Ting - UG	
Dr Kathryn Trees		Aief Leuvenardi - UG	
Dr Michael Broderick		Carlos Lin - UG	
		Ren Quan - UG	
		Helen Christinson - UG	
		Sophie Cleary - UG	
		Richard Cosnett - UG	
		Aaron Davison - UG	
		Guy Edmonds - UG	
		Rochelle Foley - UG	
		Emma Harrison - UG	
		Paul Hodge - UG	
		David La Hood - UG	
		Bridie Latona - UG	
		Jessica Martin - UG	
		Andrew McDonald - UG	
		Amanda Mitchell - UG	
		Rory Pie - UG	
		Belle Shootingstar - UG	
		John Thompson-Bispham - UG	
		Tarun Victor-Gordon - UG	
		Miranda Forwood - UG	

DIGITAL SONGLINES

will develop 'next generation' protocols, methodologies, hardware interfaces and software toolkits to facilitate the collection, education and sharing of indigenous cultural heritage knowledge across Australian communities, cultural institutions and commercial businesses. This research will be integrated to illustrate significant Australian indigenous spaces such as the Mt. Moffatt area at Carnarvon Gorge in south-west Queensland and areas around the Pilbarra in WA. This will encompass effective recording, content management and virtual reality delivery capabilities that are culturally sensitive and involve the indigenous custodians, leaders and communities in those areas. Many of the project activities cross-link with other ACID research programs.

SUPPLEMENTARY FUNDING APPLICATION

This year ACID applied for CRC supplementary funding in order to capture an opportunity presented by Professor Duane Varan at Murdoch University. The proposed research program will facilitate empirical studies of interactive TV audience behaviour designed to better understand human factors associated with their engagement with a wide variety of content. Findings from this research will then be incorporated in specific applied research initiatives. Audience research is the core activity of the program which is then translated into other initiatives including content production, application development and hardware solutions, among others. The emerging ACID Human Dimension Methodology will benefit substantially from these activities.

The supplementary funding will be invested to generate two additional outcomes for ACID:

Outcome One:
Strategic relationships will be built and strengthened with leading Australian and global companies to enhance the capacity of ACID and its industry partners to commercialise innovation from new and existing research programs globally.

Outcome Two:
Australian SMEs use ACID's 'Rapid Prototyping Platform' and supporting tools to generate more innovative ideas and drive them to market proof stage with improved cost efficiencies and higher commercialisation success rates. This success strengthens Australia's reputation, attracting higher levels of local and foreign investment in Creative Industries and, in turn, growing employment and export opportunities.

The supplementary funding will provide ACID with the additional capacity for:

- Innovation Research – the University of Melbourne will define an innovation process for Creative Industries companies.
- Rapid Prototyping – the existing ACID network will design a rapid prototyping platform (RPP) that can assist Creative Industries companies in new product development.
- Audience/Consumer Insight – Murdoch University will lead the establishment of a suite of new research tools and methodologies designed to measure consumer response to interactive content and applications so that pre-commercial product ideas in Creative Industries companies can be evaluated.

The outcomes of the supplementary funding application will be known at the end of this year.

EDUCATION

OUR FIRST YEAR

ACID projects have students engaged in research teams comprised of a university or industry supervisor. The vision is to provide a rich research culture by integrating postgraduate research students into related ACID programs as well as provide regular research seminars and participation in local and international conferences.

Student engagement in the core research programs, as well as the distribution of top-ups and scholarships to 13 students within our first six months of operation puts ACID on track to meet the lifetime objective of 40–50 student completions.

The current spread of student engagement reflects collaborative and cross-institutional projects currently underway and utilises supervision capacity as well as available facilities.

Processes are now in place for managing student activity within ACID. Ongoing monitoring and feedback to each student forms an integral part of their learning experience as well as informing each project's milestones.

The education and training group report to the governing board via the CEO who oversees the direction and structure of the program. The education group comprises Mr Michael Docherty (The University of Queensland) Prof Stuart Cunningham (Queensland University of Technology) Mr Keith Bradbury (Griffith University) and Ms Storm Griffin (The University of Queensland).

The education group meets quarterly to review progress on scholarships, student activity and to plan enhancements to existing education programs in the discipline of interaction design across tertiary education sectors (vocational, undergraduate and post-graduate) as well as considering opportunities for training and technology transfer to industry.

INTERNATIONAL PROJECTS

The establishment of a cross-institutional, international program in Interaction Design is underway. Current partners include universities in Canada, Germany, Sweden, Japan and the USA. In collaboration with ACID partner institutions in Australia, the intention is to consider how students can participate in academic activity across institutions and international borders.

'Worldstory' Collaborative Design Event: In conjunction with the University of Malmo in Sweden, Emily Carr Institute in Vancouver, Canada and two partner institutions in Australia, QUT and RMIT, teams of students are creating an ongoing computer animated story "around the world". Each episode of this story will be designed by teams of students from each partner university. A web based platform for the collaboration has been created by a student from the International School of New Media in Luebeck, Germany and is online at http://worldstory.itee.uq.edu.au

Other universities and their project teams from Japan, UK and Australia will join the project later in 2005.

SCHOLARSHIPS

Currently 13 students receive top-ups and scholarships through direct participation in ACID projects. Starting in 2005, ACID will offer a small number of full scholarships for students wishing to undertake postgraduate study in the discipline of Interaction Design. These scholarships will be advertised nationally and will be selected on a competitive basis. Undergraduate students will also have the opportunity to engage in ACID projects for academic credit.

SEMINARS & WORKSHOPS

ACID began an internal seminar program in April 2004 known as the ACID Speakeasy. The Speakeasy is designed to give students and staff from each project an opportunity to seek a broader discussion group for their progress and research questions. The current venue for the Speakeasy is QUT, with use of audio-visual conferencing to other nodes. Plans are underway to expand engagement in the Speakeasy series across all the ACID nodes via the development of the Access Grid system.

The first of an ongoing series of student workshops has been scheduled to commence prior to the Student Conference. Aimed at helping students to develop their research and presentation skills the following topics will be covered:

"Focus the Research" and 'Writing for Publication – Learning What Textbooks Don't Teach".

JET TRAINING

In September 2004, ACID held a five day intensive training program focused on the development of virtual environments, enabled by Auran Technologies' "Jet" computer game development environment. The "Jet" game environment was developed by Auran, one of ACID's industry partners, and the training will be delivered by QANTM, another of ACID's industry partners.

The training program is designed to develop capacity amongst ACID researchers in the area of 3D virtual environment development, as well as skill-up researchers in the operation and uses of "Jet". The "Jet" technology has been identified by ACID as an underlying platform for use in many projects and in particular as the foundation for the Citadel project, which looks to add interactive functionality to the Jet engine for a range of applications.

The training program will be attended by researchers and students from several ACID programs, including those in the Virtual Heritage, Digital Media and Multi-user Environment programs.

STUDENT CONFERENCE

Planning is well underway for the inaugural Student Conference, scheduled for Wednesday 13 October 2004.

RESEARCH SCHOLARSHIPS

MOBILE COMMUNITY DESIGN, MOBILE RESEARCH METHODS, GROUP USABILITY

NAME: Jeff Axup
DEGREE: PhD
INSTITUTE: The University of Queensland
START: May 2004
FUNDING: UQ / ACID
SUPERVISORS: Dr Stephen Viller, Ian MacColl
ACID PROJECT: Communities and Places

Groups are increasingly using mobile devices to coordinate their behaviour and maintain social ties. My research focuses on developing research methods suited to understanding mobile, group behaviour to inform mobile technology design. Part of these methods will include data analysis techniques and representations to facilitate communication amongst design teams.

ENHANCING COMMUNITY COLLABORATION

NAME: Keiran Bartlett
DEGREE: MPhil
INSTITUTE: The University of Queensland
START: May 2004
FUNDING: UQ / ACID
SUPERVISOR: Dr Margot Brereton
ACID PROJECT: Citadel and Communities and Places

Investigating ways in which technology can augment community collaboration and interaction.

INVESTIGATING THE DESIGN OF GESTURAL INTERFACES

NAME: Jared Donovan
DEGREE: PhD
INSTITUTE: The University of Queensland
START: March 2004
FUNDING: UQ / ACID
SUPERVISOR: Dr Margot Brereton
ACID PROJECT: Interactive Lounge

Gestural interfaces promise to let people interact with electronic devices in ways that are more natural and intuitive. My research is concerned with how to design these interfaces so this promise is realised. I am exploring participatory design methods to involve end-users in the design of gestural interfaces which engage their abilities for skilful action and better fit with the way they work.

USER-CENTRED DESIGN PRINCIPLES FOR NON-PLAYER CHARACTERS IN GAMES

NAME: Penny Drennan
DEGREE: PhD
INSTITUTE: The University of Queensland
START: April 2004
FUNDING: ACID
SUPERVISORS: A/Prof Janet Wiles, Dr Peta Wyeth, Dr Stephen Viller
ACID PROJECT: Citadel

To determine the characteristics of Non-player Character (NPC) behaviour in games that add to players' engagement and how these characteristics can be demonstrated to the player. The deliverables of this project will be design and evaluation guidelines for engaging NPCs, as a first step in the process of creating engaging NPCs.

TOWARDS A DESIGN METHODOLOGY FOR ONLINE COMMUNITY NETWORKS TO GROW SUSTAINABLE NEIGHBOURHOODS

NAME: Marcus Foth
DEGREE: PhD
INSTITUTE: Queensland University of Technology
START: June 2004
FUNDING: QUT, APA, ACID
SUPERVISOR: A/Prof Greg Hearn, Prof Jeff Jones
ACID PROJECT: Communities and Places

This project investigates the continued purpose and relevance of neighbourhoods, the notion of collective vs. network community design and how online community systems designed for place-based peer-to-peer social interaction can contribute to the creation of neighbourhood identity and network social capital.

THE RELATIONSHIP BETWEEN LOW BANDWIDTH LIMITED IMMERSION AND HIGH BANDWIDTH (SOPHISTICATED KINESTHETIC) STYLE VIRTUAL HERITAGE STRATEGIES

NAME: Stef Gard
DEGREE: Masters
INSTITUTE: Queensland University of Technology
START: June 2004
FUNDING: ACID
SUPERVISOR: Sam Bucolo
ACID PROJECT: Digital Songlines

To explore the different perceptions of nature and environment between indigenous and non-indigenous Australians and determine which aspects of a virtual world need to be used in both high bandwidth and low bandwidth and which ones are only needed in the high bandwidth version.

THE CRITICAL FEATURES OF MULTIUSER RELATIONSHIPS IN INDEPENDENT VIRTUAL COMMUNITIES THAT DEVELOP USER-GENERATED CONTENT SUCCESSFULLY

NAME: Eryn Grant
DEGREE: Masters
INSTITUTE: Queensland University of Technology
START: August 2004
FUNDING: ACID
SUPERVISOR: Dr Barbara Adkins
ACID PROJECT: Location Based Games

To study issues of collaborative relationships between users in virtual worlds and develop a logic and methodological framework for informing prototype development of multi user environments that contain user-generated content. The key concern of this investigation is to locate the methods and framework that allows successful interactions to take place. To understand and then document the existing regulations that create community dynamics around user generated content.

STUDY OF COMMUNICATIONS IN RESIDENTIAL COMMUNITIES

NAME: Fiona Redhead
DEGREE: Masters by coursework
INSTITUTE: The University of Queensland
START: May 2004
FUNDING: ACID
SUPERVISOR: Dr Margot Brereton
ACID PROJECT: Communities and Places

To study communities and networking in residential communities to understand the motivations for participation, the barriers to participation, methods of communication and networking use. The research will focus on providing better support to communities by building social, cultural and networking capital and effective environments for business.

BEGINNING FROM AN ENTRY LEVEL, WHAT CHOICES DOES A PARTICULAR ABORIGINAL GROUP MAKE IN PURSUING ITS AIM OF TAKING UP AND APPLYING DIGITAL MEDIA; AND WHAT INFORMS THOSE CHOICES.

NAME: Frank Rijavec
DEGREE: Masters
INSTITUTE: Murdoch University
START: June 2004
FUNDING: Murdoch, Juluwarlu Aboriginal Corporation, ACID
SUPERVISOR: Dr Mick Broderick
ACID PROJECT: Digital Songlines

In collaboration with Juluwarlu Aboriginal Corporation (JAC) of Roebourne, to research and develop strategies for the application of Digital Media to recording Yindjibarndi & Ngarluma cultural and historical knowledge and the routine production and distribution of local programming. In accordance with the JAC's stated objectives, the project will also investigate funding/resource models and modes of production/distribution that return greatest initiative, control, autonomy and satisfaction to Aboriginal media producers.

CONTEXTUAL AWARENESS IN GROUPWARE

STUDENT: Markus Rittenbruch
DEGREE: PhD
INSTITUTE: The University of Queensland
START: June 2004
FUNDING: UQ / ACID
SUPERVISORS: Dr Stephen Viller, Dr Tim Mansfield
ACID PROJECT: Collaboration

To create a conceptual framework and model for contextually enriched awareness in CSCW (Computer Supported Cooperative Work) and to enhance existing event-based asynchronous awareness mechanisms. The framework will convey a rich set of contextual information about user activities in groupware systems that allows the receiver of the information to understand activities of co-workers in a broad context.

FACILITATING PLAYER ENJOYMENT WITH ACTIVE GAME ENVIRONMENTS

NAME: Penny Sweetser
DEGREE: PhD
INSTITUTE: The University of Queensland
START: April 2004
FUNDING: UQ GSS / ACID
SUPERVISORS: A/Prof Janet Wiles, Dr Peta Wyeth
ACID PROJECT: Citadel

To enhance player enjoyment in games by determining the factors that affect player enjoyment and designing game environments that facilitate player enjoyment.

BEST PRACTICE IN INTERACTIVE EXHIBITION DESIGN

NAME: Mia Thornton
DEGREE: Honours
INSTITUTE: Queensland University of Technology
START DATE: March 2004
FUNDING: ACID
SUPERVISOR: Dr Angelina Russo
ACID PROJECT: Digital Songlines

To examine the two-way relationship that can exist between virtual environments and the body in museums, particularly within the context of indigenous cultural heritage.

WEARABLE COMPUTING

NAME: Clint Heyer
DEGREE: PhD
INSTITUTE: The University of Queensland
START: May 2004
FUNDING: APA / ACID
SUPERVISOR: Dr Margot Brereton
ACID PROJECT: Communities and Places

To investigate affective, social and interaction aspects of wearable computing, along with a secondary interest in intelligent knowledge agents in the wearable computing platform.

COLLABORATION

ACID leverages collaboration across its university and industry partners. Underpinning all ACID projects is the requirement that at least two universities and one industry partner work together. Several ACID industry and university personnel are currently working within each other's organisations.

Our co-location of start-ups, SME Consortium, industry partners and university researchers generate a powerful multi-disciplinary environment over distributed ACID nodes in Brisbane, Perth, Melbourne and Christchurch NZ. This fosters rich collaboration with a focus on commercial possibilities enabling swift transfer of learning to both researchers and industry. Commercial outcomes from intellectual property generated within research projects will be shared with core and supporting participants, kickstarting opportunities for more rapid commercialisation and technology transfer.

Communication plans apply across ACID, within and between project teams, backed up by LITMUS, the ACID newsletter, as well as email lists. The Collaboration project has made a range of software tools available and is researching patterns of use to develop a customised collaboration solution for ACID, with possible commercialisation.

The twice-yearly ACID Innovation Forum ensures ACID research remains cutting-edge. The first meeting of the SME Consortium identified lines of research emerging from member interests. Through ACID the Consortium has also met Catherine Casey from the London office of the QLD Government Trade Office, to identify liaisons with Europe.

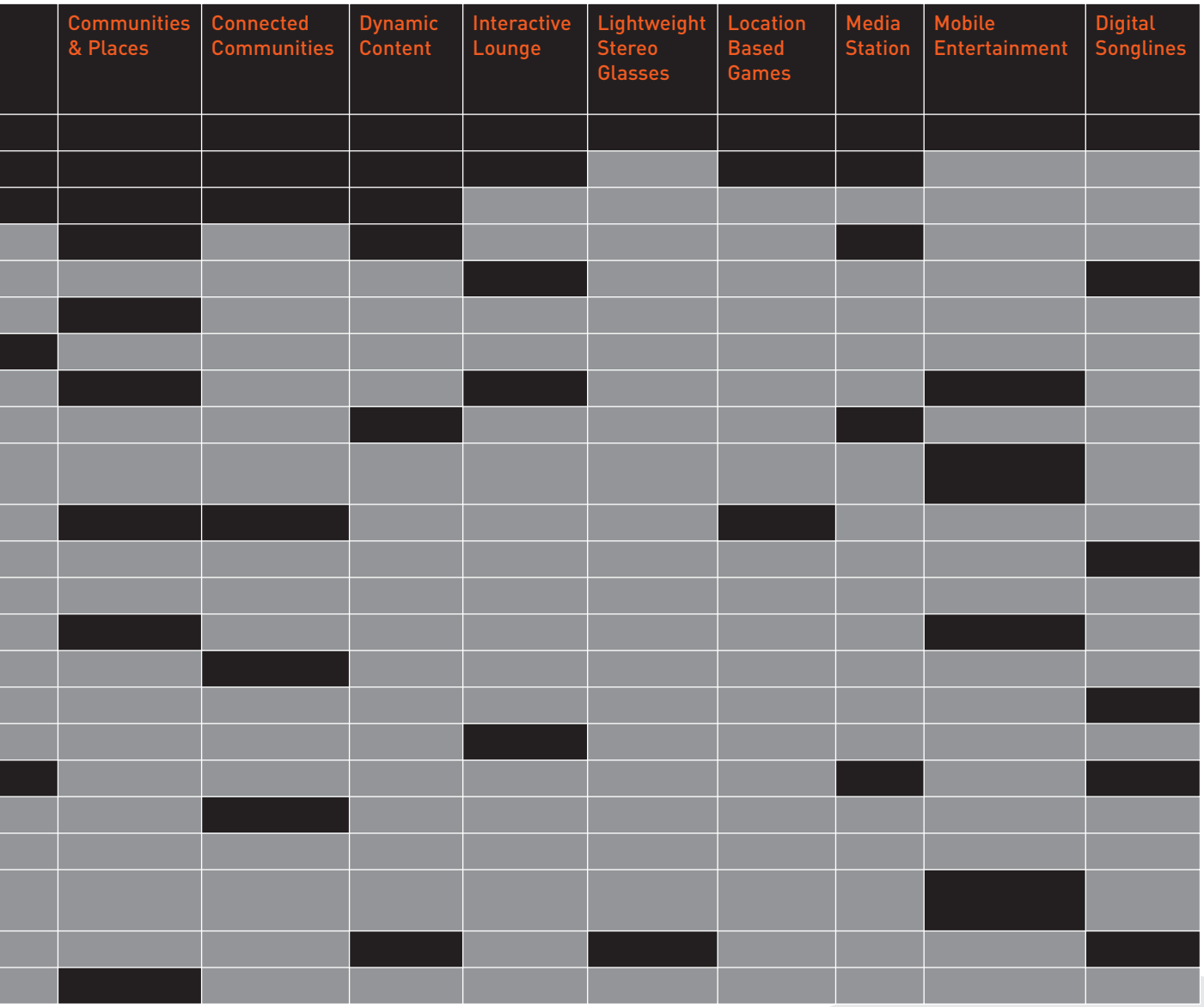
ACID has new participants, iMap, Heritage Pacific and sponsors, Blue Rocket Productions, Roving Stage Productions and The Hornery Institute.

ACID is actively exploring collaborative project possibilities with a number of other CRCs and community groups.

Internationally, ACID maintains strong links with Malmo, IAMAS-Education program video-conferences, XEROX Global Services and SIGMA, OECD.

THE ACID QUILT-
CAPTURING THE TEXTURE OF COLLABORATION

	ACID Press	Australasian Creative Industries Network	Audio Spatialisation	Citadel	Collaboration
QUT					
UQ					
RMIT					
Griffith University					
Murdoch University					
UTS					
ACID					
ACMI					
Auran					
Blue Rocket Productions					
Brisbane City Council					
CyberDreaming					
Enakt / UQP					
HITLab NZ					
The Hornery Institute					
Leavy Consulting					
PIVOD					
QANTM					
Qld Dept Housing					
room40.org					
Roving Stage Productions					
Silicon Graphics					
ZONE 4					


Communities & Places
Connected Communities
Dynamic Content
Interactive Lounge
Lightweight Stereo Glasses
Location Based Games
Media Station
Mobile Entertainment
Digital Songlines

MANGAGEMENT & OPERATING

MANAGEMENT & OPERATING MILESTONES

Date	Task
	Interim board and interim management team established in 2002-2003
2_03	Draft 1 Shareholders and Commonwealth Agreements tabled at interim AGM
6_03	Business Plan Framework adopted
	Board Governance Framework adopted
7_03	Terms of Reference for audit and remuneration sub-committees adopted
	3 Stage project process adopted
	ACID Company registered by QUT
8_03	Communication framework adopted
	Proposed CRC Visitor approved by the board (Dr. Katherine Woodthorpe)
9_03	Shareholders Agreement and Commonwealth Agreement Signed
	LAUNCH – Research Funding Round 1
11_03	Board Operating Principle Adopted
	Accountant Appointed (Johnston Rourke)
12_03	Round 1 Research projects approved (58 considered, 10 approved)
	QUT/ACID Service Level Agreement approved
	Solicitors Appointed (Malleson Stephens and Jacques)
	Auditor Appointed (PKF Australia)
	Logo Design Adopted
	Initial Share Applications signed
	Company Secretary Elected (Sonya Henderson Edbrooke)
	Greentree/BizLink accounting software installed
	iMap Innovation Management Software installed
1_04	ACID HQ Established in the Creative Industries Precinct (QLD)
2_04	Draft 1 Umbrella Agreement and Project Orders Distributed
	LAUNCH – Research Funding Round 2
3_04	Financial reporting framework adopted
	Process for capturing in-kind contributions adopted
	Audit Requirements established
5_04	Round 2 Research projects approved (17 considered, 5 approved)
	Draft MOPP adopted
	First ACID Innovation Forum
	Supplementary Funding Application submitted to DEST
	First General Meeting of Shareholders
	Entry of new shareholders iMap and Heritage Pacific approved by Shareholders
	Remuneration of Directors approved
6_04	Umbrella Agreement, Addendum and Project Orders Executed
	2004-2005 Strategy and Operational Targets adopted
	Quality management standards under consideration (CMMI and SixSigma)

STRATEGY FOR 2004-2005

2004-2005: "PROFILE, CONSOLIDATION, COMMERCIALISATION"

Overall ACID needs to continue to focus, refine and grow its core competencies in order to achieve the outcomes required by the Commonwealth Agreement and the overall business planning framework set out in the Shareholders Agreement.

In addition ACID's profile, communications, management, education and compliance requirements need to be expanded and refined. Broadly speaking the overarching strategies for achieving expansion and refinement in these areas are:

- **Management:** Hire additional staff;
- **Research:** Finalise the consolidation and growth trajectory of core competencies; formalise and refine in-kind arrangements;
- **Collaboration:** Create the ACID virtual organisation and schedule of events;
- **Communication:** Expand communication channels and implement a marketing strategy;
- **Education:** Formalise relationships and scholarship opportunities with students;
- **Technology Transfer:** Establish a training and development program and begin marketing short courses;
- **Commercialisation:** Implement the Commercialisation Plan and begin commercialising; and
- **Compliance:** Refine compliance and reporting systems.

Each of these overarching areas has been broken down into strategies for achieving value from the ACID organisation and its scope, profile and quality initiatives, intellectual property and people. The table below shows how specific strategies are linked to outcomes, operational targets and value generation. The overlapping duties of individual staff members are indicated at the bottom of the table and are to be used to establish KPIs for each person.

ACID MEDIA LAB

The ACID Media Lab is a high-end production space for ACID research teams. The Media Lab hosts high performance workstations, collaboration facilities and Australia's first installation of SGI's Linux Visualisation System.

The Media Lab is connected to GrangeNet, Australia's high speed research network. Projects such as The Australasian Creative Industries Network (ACIN) will use GrangeNet for nationwide distribution of content and real-time performances.

Later in 2004, ACID will create an AccessGrid node utilising the SGI Visualisation System. Combined with GrangeNet, the system will enrich ACID's online collaboration capability.

Other uses for the Linux Visualisation system include the creation of a mobile AccessGrid configuration, Virtual Reality products based on the Digital Songlines project, as well as delivery of 3D world simulations for the Citadel project.

Within the Lab, a 3D animation studio has been created for students working on the Digital Songlines project. The aim of the studio is to provide a workplace experience for the students as opposed to conventional classroom settings.

ACID's vision for the Media Lab is to make it a state-of-the-art facility for ACID research teams.

THE OTHER RESOURCES AVAILABLE TO ACID PROJECTS ARE:

QUT
- 200 sqm Lab space for project teams
- SGI Origin 3000 HPC Facility
- Creative Industries Precinct
- Design fabrication facilities
- Display technologies
- Exhibition facilities

UQ
- Office and Lab space at Ipswich Campus

MURDOCH
- Interactive Television Research Institute

RMIT
- iCubed: Reality Centre

AURAN
- Auran Jet Game Development Environment

SGI
- Expertise and Equipment

ACMI (Australian Centre for the Moving Image)
- Facilities including public exhibition space (for useability testing)

STRATEGIES

	Management	Research	Collaboration	Communication	Education	Tech X-fer	Commercialisation	Compliance
Scope	Develop a research project commissioning process	Finalise research focusing process	Create a systematic and proactive project-recruitment effort	Maintain and expand formal communication channels	Implement a student outreach program	Develop and offer short courses	Develop & implement the Commercialisation Plan	Refine risk management and compliance procedures
Profile & Quality	Implement quality initiatives	Clearly articulate research position	Build Subscription-based consortia	Implement a marketing plan	Implement an industry outreach program	Create knowledge transfer opportunities	Implement the innovation management scheme	Refine official communications with stakeholders and Board
Intellectual Property	Establish a development team	Formally align research activity to agreed outputs	Design the ACID virtual organisation	Expand outreach initiatives	Attract Quality students	Track uses of knowledge and IP	Foster longevity in highly functional project teams	Finalise compliance/ reporting templates
People	Recruit key positions	Recruit key participants & refine in-kind contributions	Mobilise key people	Initiate cross-project communication requirements	Establish international links	Recruit key sponsors	Recruit commercial partners	Integrate compliance duties into additional and refined positions
Duties	CEO, Research Leaders				Education Director	Enterprise Development Director (EDD)		
	(EDD)	Collaboration Manager			Business Manger			
	Program Managers			Communications Coordinator				
	Research Technology Manager							
	Administrative Officer							

PERSONNEL MASTER TABLE

Title and Name	Classification	Contributing Organisation	Time allocation	Program **
Jeff Jones, CEO	A	CRC	1.0	
Sonya Henderson Edbrooke, EDD	A	CRC	1.0	
Kelina Miller, Communication Coord	A	CRC	1.0	
Sarah Jordan, Admin Officer	A	CRC	1.0	
Director of Research (TBD)	A	CRC	1.0	
Business Manager (TBD)	A	CRC	1.0	
Frank Chalmers Collaboration Mngr	A	CRC	1.0	
Gavin Winter, Res Tech Mngr	A	CRC	1.0	
Technical Support Officer (TBD)	A	CRC	1.0	
Technical Support Officer (TBD)	A	CRC	1.0	
Senior Researcher	R	CRC	1.0	
Senior Researcher	R	CRC	1.0	
Senior Researcher	R	CRC	1.0	
Senior Researcher	R	CRC	1.0	
Senior Researcher	R	CRC	1.0	
Senior Researcher	R	CRC	1.0	
John Hartley	A	QUT	.40	-
Peter Lavery	R	QUT	.20	MUE
Computer Service Officer	A	QUT	.20	-
Karen Wiley	A	QUT	.20	-
Stuart Cunningham	E	QUT	.40	EP
Jude Smith	E	QUT	.20	-
Andy Arthurs	R	QUT	.20	DM
Graham Kerr	R	QUT	.20	MUE
Axel Bruns	R	QUT	.20	MUE
Cheryl Stock	R	QUT	.20	DM
Barbara Adkins	R	QUT	.40	SL
Daniel Mafe	R	QUT	.20	DM
Andrew Brown	R	QUT	.75	DM
Sam Bucolo	R	QUT	.50	SL
Gavin Sade	R	QUT	.20	SL
Chris Barker	R	QUT	.50	VH
Deb Polson	R	QUT	.80	SL
Simon Perkins	R	QUT	.20	DM
Angelina Russo	R	QUT	.20	DM
Brad Haseman	E	QUT	.20	EP
Stephanie Donald	R	QUT	.20	SL
Dianne Eden	R	QUT	.20	VH
Leonard Meechan	R	QUT	.20	VH
Bernadette Savage	R	QUT	.20	DM
Zane Trow	R	QUT	.20	DM
Greg Hooper	R	QUT	.30	DM
Michael Docherty	E	Uni of QLD	.40	EP
Margot Brereton	R	Uni of QLD	.20	SL
Daniel Johnson	R	Uni of QLD	.20	DM
Ian MacColl	R	Uni of QLD	.40	MUE
Penny Sanderson	R	Uni of QLD	.20	U
Matthew Simpson	R	Uni of QLD	.20	SL
Stephen Viller	R	Uni of QLD	.40	MUE
Brian Lovell	R	Uni of QLD	.20	SL
Neil Bergman	R	Uni of QLD	.20	SL
Ann Morrison	R	Uni of QLD	.20	SL
Peta Wyeth	R	Uni of QLD	.20	U
Theodor Wyeld	R	Uni of QLD	.20	U
Jihan Zhu	R	Uni of QLD	.20	U
Leigh Peterson	A	RMIT	.20	-
Adrian Bruch	R	RMIT	.20	MUE
Mark Burry	R	RMIT	.20	SL
Dr William Cartwright	R	RMIT	.30	U
Mark Lycette	R	RMIT	.15	U
Allison Brown	R	RMIT	.10	U
Supriya Singh	R	RMIT	.20	SL
Jane Burry	R	RMIT	.50	SL
Roslyn Russell	R	RMIT	.20	U
Christopher Petite	R	RMIT	.20	U
Michael Coburn	R	RMIT	.20	U
Andrew Burrow	R	RMIT	.20	SL
Paul Doornbusch	R	RMIT	.40	DM
Gregory More	R	RMIT	.20	DM
Jonathon Duckworth	R	RMIT	.50	MUE
Mark Guglielmetti	R	RMIT	.50	DM

**PROGRAM:

SL – Smart Living
DM – Digital Media
MUE – Multi-user Environment
VH – Virtual Heritage
EP – Education Program
U – Undecided

Title and Name	Classification	Contributing Organisation	Time allocation	Program **
Lawrence Harvey	R	RMIT	.50	DM
Simon Jones	R	RMIT	.20	DM
Yamin Tengono	R	RMIT	.20	SL
Norbert Nimmervall	R	RMIT	.20	MUE
David Atkinson	R	RMIT	.10	DM
Jeremy Yuille	R	RMIT	.20	MUE
Pia Ednie-Brown	R	RMIT	.20	MUE
Michael Greystock Jones	R	Griffith	.20	U
Mira Peter	R	Griffith	.20	U
Paul Treffner	R	Griffith	.20	DM
Howard Middleton	R	Griffith	.20	U
Margarita Pavlova	R	Griffith	.20	U
Glenda Nalder	R	Griffith	.20	SL
Ljubo Vlacic	R	Griffith	.20	SL
Keith Bradbury	E	Griffith	.30	EP
Paul Cleveland	R	Griffith	.20	DM
Cathie Sherwood	R	Griffith	.20	DM
Earle Bridger	R	Griffith	.20	U
Paul Jolly	R	Griffith	.20	DM
Bernadette Flynn (Jan 2004)	R	Griffith	.20	MUE
Susan Ostling	R	Griffith	.20	U
Yongsheng Gao	R	Griffith	.20	U
Ken Newman	R	Griffith	.20	DM
Jun Jo	R	Griffith	.20	U
Duane Varan	R	Murdoch Uni	.25	SL
Kathy Trees	R	Murdoch Uni	.20	VH
Andrew Turk	R	Murdoch Uni	.25	SL
Michael Broderick	R	Murdoch Uni	.20	VH
Ingrid Richardson	R	Murdoch Uni	.20	SL
Nicola Ritter	R	Murdoch Uni	.25	SL
Vicki Wilson	R	Murdoch Uni	.20	SL
Simon Avenall	R	Murdoch Uni	.20	SL
Rob Phillips	R	Murdoch Uni	.20	SL
TBD	A	Murdoch Uni	.50	-
Mark Billinghurst	R	HitLab	.20	SL
Richard Green	R	HitLab	.20	SL
Marilyn Lim	R	HitLab	.20	SL
Desmond Taylor	R	HitLab	.20	SL
James Hills	R	SGI	.40	VH
Nick Conomo	A	SGI	.10	-
Todd Churchwood	R	SGI	.20	VH
John Banks	R	Auran	.40	MUE
Greg Lane	A	Auran	.10	-
Graham Edelsten	A	Auran	.10	-
Rod Sims	R	QANTM	.30	MUE
Garry Hargreaves	E	QANTM	.30	EP
David Cox	R	QANTM	.10	MUE
Brett Leavy	R	CyberDreaming	.25	VH
Mike Stubbs	R	ACMI	.20	MUE
Kim Montgomery	R	ACMI	.20	SL
Gale McIndoe	R	ACMI	.20	SL
Researchers (TBD)	R	SME Consort.	.50	ALL
John Grant	R	iMAP	.15	MUE
Barry Miskin	R	iMAP	.15	MUE
Mark Irving	R	iMAP	.15	MUE
Brett McDonald	A	Heritage Prop	.10	SL
Alana Wilson	A	Heritage Prop	.10	SL
Project Manager	A	Heritage Prop	.10	SL
Carol Davidson	A	Heritage Prop	.10	SL
Database/Internet Manager	A	Heritage Prop	.10	SL
Sales Staff	A	Heritage Prop	.10	SL

The following researchers were involved with ACID during its establishment.
While they have moved to other projects or organisations we thank them for their contributions.

Title and Name	Classification	Contributing Organisation	Time allocation	Program **
Sharon Tickle	A	QUT	.20	-
Joachim Diedrich	R	UQ	.20	-
Brogan Bunt	R	Murdoch	.25	VH
Raj Gururajan	R	Murdoch	.25	VH

PUBLICATIONS & PATENTS

PUBLICATIONS

C.Lebbon, M.Rouncefield, and S.Viller
- Observation for Innovation

Polson, D.
- "Lesser-known-worlds: A Closer Look at Game Design". Mirroring Sessions. A QUT Seminar Series. March 17, 2004.
- "About Games" at Victoria University, Multimedia Department, South Melbourne Campus. Melbourne May 18 2004.
- "SCOOT. Player Agency and Subversion" 2004 NEXTWAVE Independent Games Conference. Melbourne May 22 2004
- "Conceiving and Designing Mixed Reality Games". Victoria University. Footscray Campus. Melbourne May 24 2004.
- "SCOOT. Research Collaboration Potentials". The Australasian CRC for Interaction Design, Board of Directors. Brisbane May 26 2004

CONFERENCE PAPERS, PRESENTATIONS, TUTORIALS & WORKSHOPS (2003-2004)

Banks, J.
- (May 2004), Panel Moderator, AFTRS Seminar : "Crossing the Line: Games and Cinema"

Barker, C.
- 2004 "Rendering Masterclass for Maya", Proceedings of Graphite, International Conference on Computer Graphics and Interactive Techniques in Australasia and Southeast Asia 2004, Nanyang, Singapore: SEAGRAPH

Campbell, B., T. Cederman-Haysom, J. Donovan and M Brereton
- (Dec 2003) "Springboards into Design: Exploring Multiple Representations of Interaction in a Dental Surgery." Full paper (10pages).
- Proceedings of OzCHI 2003, the annual conference for the Australian Computer-Human Interaction Special Interest Group (CHISIG) of the Ergonomics Society of Australia.

Brown, A. R.
- 2004. "An aesthetic comparison of rule-based and genetic algorithms for generating melodies." Organised Sound. (In press)

Brown, A. R. & Jenkins, G.
- 2004. "The Interactive Dynamic Stochastic Synthesizer" " Proceedings of the Australasian Computer Music Conference 2004. Wellington, NZ: ACMA

Bucolo, S.
- (June 2004) "Understanding Cross Cultural Differences During Interaction Within Immersive Virtual Environments"
- ACM SIGGRAPH International Conference on Virtual Reality Continuum and Its Applications in Industry, Singapore

Bucolo S, Ginn S et al
- (February 2004) "Using Virtual Reality Models to Better Communicate How Decisions are Made to Build Future Cities"
- Planning Institute of Australia national Conference – Planning on the Edge, Hobart

Bucolo, S.
- (November 2003) – Conference Participant - OZCHI 2003
- New Directions in Interaction: Information Environment, Media and Technology

Bucolo, S. and M. Brereton
- "Design Activity within Immersive Design Environments" International Conference on Computers in Art and Design Education, CADE, Malmo Sweden, June 2004.

Campbell, B. and M.Brereton
- "Maintaining Human Agency in the Design of Context-Aware Systems: Design Games in a Dental Surgery" full paper accepted for OzCHI Nov 2004

Cederman-Haysom, T. and M. Brereton
- "Bridging Technical and HCI Research: Creating Usable Ubiquitous Computing" full paper accepted for OzCHI Nov 2004

Jones, J.I.
- Ozchi – Keynote - Digital content: Driving Interaction Design through Creative Industries
- HitLabNZ Annual Conference Speaker Ozeculture Panel Moderator May 2004

Viller, S (2003)
- OzCHI Program Co-Chair, 26-28/11/03.
- (2003) CHI 2004, paper reviewer, November 2003.
- APCHI 2004, paper reviewer, March 2004.
- CSCW 2004, paper reviewer, May 2004.
- OZeCulture 2003: Culture with Byte Interaction Panel Jeff Jones (moderator), Mark Burry, Mark Billinghurst, Margot Brereton, Andrew Brown. 30th July 2003
- Panel: Trading design spaces: exchanging ideas on physical design environments. Wendy Ju (moderator), Margot Brereton, Michael Haller, Amanda Parkes, Scott Klemmer, Brian Lee, Dan Rosenfeld

- April 2004 Extended abstracts of the CHI 2004 conference on Human factors and computing systems

- ACID Innovation Forum: Research Panel. Jeff Jones (moderator), Mark Billinghurst, Margot Brereton, Mark Burry, Duane Varan, Stuart Cunningham, Keith Bradbury, Michael Docherty 12th May 2004

- OzCHI 2003 Panel "What do we mean by design?" Margot Brereton (moderator), Toni Robertson, Mark Burry, Ben Matthews, Steve Howard, Tim Mansfield, 28th Nov 2003.

- OzCHI Doctoral Colloquium Panel; Toni Robertson (Chair), Margot Brereton, Keith Chevhurst, Steve Howard, 26th Nov 2003.

- ACID Innovation Forum: Industry Panel. Terry Cutler (Moderator), Nick Conomo, John Banks, Brett Leavy, Paul Holland, James Paulsen, Mike Stubbs, Julie Harris

- DCITA & NOIE CI Forum @ The Judith Wright Centre

- Creative Industries Strategy Group

DEMONSTRATIONS

Simpson, M. and Bartlett, K.
- (2003) TheNexus: A Games Engine Adapted for Collaboration. Demonstration, in Proceedings of the Australian Computer-Human Interaction (OZCHI 2003) Conference, Brisbane, Australia. November 2003.

PAPERS UNDER REVIEW

Foth, M. and Brereton M.
- "Enabling local interaction and personalised networking in residential communities through action research and participatory design" Short paper (4 pages) submitted to OzCHI 2004

COMMUNICATION & PR

ACID partner organisations and researchers are distributed across the east and west coasts of Australia and New Zealand.

Effective communication between the Board, Management and project teams is therefore of paramount importance to the ongoing collaborative activities of ACID.

COMMUNICATION STRATEGY

Early in 2004 the ACID Communication Plan was developed resulting in the following communication objectives for the organisation:

- **Advocate** with policy makers to value and support improvement in ACID-related domains;
- **Create** a global hub for individuals and organisations to pursue the exchange of ideas, stories and developments in ACID areas of interest;
- **Promote** ACID's existence, mandate and activities;
- **Create** a communication network as wicked as the problems ACID seeks to solve;
- **Fulfil** mandatory corporate responsibilities; and
- **Aspire** to be world's best.

In addition to having far-reaching communication objectives, it was determined to be useful to consider communication in terms of interchangeable and overlapping channels; those being: Mandatory, Operational, Motivational and Strategic. These channels support the following key groups:

- The Board
- Management and staff
- Research Leaders
- Education Managers
- Node Coordinators
- Project leaders
- Project teams

1. **Mandatory Communication** refers to all forms of communication which are required by law, or by company rules.

2. **Operational Communication** refers to both formal and informal forms of communication, all of which are required to ensure appropriate delivery of core products of the CRC. It is focussed on research outcomes and outputs.

3. **Motivational Communication** refers to those forms of interaction which will develop a sense of ACID identity and community. They aim to promote enthusiasm and commitment and are creative, flexible, informal and spontaneous - in a word, wicked.

4. **Strategic Communication** refers to those forms of interaction which take a long-term view of issues spanning all areas of ACID activity and which are aimed at investigating and selecting new directions.

In ACID, a wicked approach to problem-solving is crucial to its mode of research. Hence ACID expects significant overlap between operational and motivational communication, with associated increases in (apparently) informal modes of communication. However, this cannot be simply imposed but needs time, tools and conceptual 'space' to evolve, driven in large part by ACID participants themselves. At the outset, ACID's strategy is to provide the tools and organisational flexibility to facilitate this evolution.

Appropriate systems, tools and processes have been established to facilitate ACID's communication objectives, these include:

- Regular meetings for internal and external stakeholders;
- Redevelopment of the ACID website;
- The ACID Litmus Newsletter; and
- Establishment of email groups.

To enable Communication and Marketing objectives, ACID has appointed of a full-time Communication Coordinator. This position coordinates the areas of communications and marketing and is also responsible for Board and Research Committee secretariat functions.

LITMUS

ACID continues to develop the monthly newsletter, the ACID Litmus. Currently an online publication, ACID aims to grow distribution of The Litmus via the addition of a printed edition starting in 2005. The Litmus currently is distributed to in excess of 230 of ACID's collegues.

ACID WEB SITE

May 2004 saw the launch of the new-look ACID Website and currently under development is the ACID intranet, scheduled to be deployed early in 2005.

MARKETING STRATEGY

Development of a Marketing Strategy has commenced with key objectives identified to:

- Raise awareness of ACID;
- Attract new investors and partners; and
- Promote key collaborative projects.

With the dynamic nature of key markets it is vital that ACID has in place effective strategies to take advantage of opportunities as they emerge. Key areas of focus for the marketing plan include:

- Partner relations including joint media releases;
- Government relations;
- Projects;
- Corporate image; and
- Media training.

Resources for project teams and management developed over 2004 include the ACID branding identity, stationery, project briefs, brochures, generic PowerPoint slides and an image library.

EVENTS

In addition to the official Launch of ACID on 12 October, ACID will hold its second twice yearly Innovation Forum, an event developed to allow project teams an opportunity to get together and share research progress.

The Annual Student Conference is scheduled for 13 October 2004. This is an opportunity for ACID students, their supervisors and ACID project team members hear presentations from students.

GRANTS AND AWARDS

Since opening its doors in September 2003, no grants or awards have been awarded.

INTERNAL PRESENTATIONS

Massively-Multiplayer Online Worlds - from the Citadel Project - discussion led by John Banks, Joseph Hewitt IV, Ian MacColl, Penny Sweetser, and Deb Polson.

Collaboration in ACID - to investigate existing approaches and introduce the initial ACID collaboration toolkit - from the Collaboration Project - presented by Ian MacColl and broadcast to RMIT and Griffith Universities via the Collaboration toolkit.

'Backpacker' as a Revolutionary Category - from the Location-Based Games Project - presented by Barbara Adkins.

Human Dimensions in ACID Research: Some Reflections; Designing a Game for a Backpacker Market – from the Location Based Games Project - presented by Eryn Grant.

Communities and Place Project – the process so far and the path forward – presented by Margot Brereton.

The Effects of Interface Design on Mobile, Group Behaviour – from the Communities and Place project - presented by Jeff Axup.

PERFORMANCE MEASURES

The ACID Commonwealth Agreement and Shareholders Agreement each provide an indication of how ACID as a company and research centre should be performing. These measures are listed below along with targets for 2004-2005.

These have been derived from strategic planning initiatives that resulted in the strategy matrix for 2004-2005 (shown on page 37 in this Annual Report).

ACID COMPANY PERFORMANCE MEASURES

		Metric	Quality/Quantity Issues	2004-2005
A	24%	# of short-term outputs/uses vs Long-term outcomes	Quantity of demonstrators, research publications, students integrated into research projects.	4:1
		$ of ACID investment vs #/$ of related, new transactions	Quantity of economic value added to local, state and federal markets.	3:1
B	16%	$ of Income vs $ of ACID investment	Quantity of revenue from Tech Transfer, Contract R&D and new IP.	1:4
C	60%	# of ACID participants: # of formally identified communication plans	Quantity of researchers and students contributing to research projects; Staff identification with ACID brand and initiatives; quantity of sponsorship $.	5:1

ACID COMMONWEALTH AGREEMENT PERFORMANCE MEASURES (OVER 7 YEARS)

	Metric	Start year	2004-2005
1	Research outputs will be in excess of 20 processes, methods, patents and publications from multi-disciplinary teams working across multiple nodes.	2003	5
2	Develop in excess of 20 prototypes for products in content, hardware and software as defined by user feedback and input.	2003	5
3	Up to $3M in income achieved through licenses, spin-offs, consulting and other income generation mechanisms.	2005	Est.
4	Industry participants will receive in excess of 20 prototypes providing commercialisation opportunities for products in content, hardware and software.	2003	5
5	Development of multiple, practical strategies for relating technical innovation to community development.	2003	3
6	SME consortium of over 12 industry partners which will attract one to two research/production contracts per year (metric = subscription fees and contract $).	2004	$100K
7	40 – 50 post-graduate students, working collaboratively in cross-disciplinary, cross-institutional, international projects, with options to participate in CRC-sponsored online education and training courses. Integrate UG students.	2003	3 PhD
8	Establishment of a post-graduate supervision program providing 40 – 50 exchange opportunities with CRC industry participants and affiliates.	2004	Done
9	Up to 30 short courses developed from research output and taught to both internal and external clients.	2004	3
10	Project proposals must demonstrate at least two university partners working in a multi-disciplinary, multi-nodal capacity.	2003	Done
11	Project proposals must demonstrate user input and at least one industry participant.	2003	Done
12	In excess of three projects will have international researcher involvement. The education program involves three international partners working collaboratively.	2004	1

ASSESSMENT OF TRACK RECORD

The ACID Commonwealth Agreement provides a list of 33 Research Outcomes and target delivery dates.

Current mechanisms for tracking the outputs of specific projects and emerging initiatives provides the following snapshot of activity to date.

SMART LIVING PROGRAM

Outcome 1	Description: Demonstrate new forms of multimodal interactive communication through the integration of technology infrastructure, new devices, software, social processes and education in community contexts. Released from 2004 through 2007.
Status	ON TARGET: Location Based Games, Communities&Places, Connected Communities.
Outcome 2	Description: Demonstrate the viability of 'Smart Living' communities through new enabling models, methods, templates and technologies for interactive activity. Released between 2006 & 2008.
Status	ON TARGET: Location Based Games, Connected Communities, Virtual Genesis.
Outcome 3	Description: Demonstrate sustainable 'Smart Living' interaction formats, infrastructure and interactive systems. Delivered between 2008 and 2010.
Status	ON TARGET: Location Based Games, Interactive Lounge, Connected Communities.
Outcome 4	Description: Demonstrate technological protection measures for the tools and technologies of 'Smart Living' applications. Delivered between 2007 and 2010.
Status	ON TARGET: Location Based Games, Mobile Entertainment.

DIGITAL MEDIA PROGRAM

Outcome 5	Description: Demonstrate new forms of interaction with digital representations of dynamic media. Delivered between 2004 and 2006.
Status	ON TARGET: Dynamic Content, Audio Spatialisation.
Outcome 6	Description: Demonstrate techniques for platform independent media storage and delivery. Delivered between 2005 and 2007.
Status	ON TARGET: Collaboration, ACID Press, Citadel (Auran Jet Port to Linux64, Macintosh.)
Outcome 7	Description: Demonstrate how to expand the expertise, content and IP of participant industries. Delivered between 2005 and 2007.
Status	ON TARGET: Dynamic Content, Citadel, Digital Songlines.
Outcome 8	Description: Demonstrate new hardware, content and software based upon existing media content. Delivered between 2004 and 2006.
Status	ON TARGET: Mobile Entertainment, Connected Communities.
Outcome 9	Description: Demonstrate a massively multi-user online, social application aimed at providing profitable technology spin-offs using existing media content and/or the new media forms described here. Delivered between 2005 and 2008.
Status	ON TARGET: Citadel, Digital Songlines, Media Statio, ACIN.
Outcome 10	Description: Demonstrate sustainable new digital media interaction formats, infrastructure and interactive systems. Delivered between 2008 and 2010.
Status	ON TARGET: Dynamic Content, World Story, Media Station.
Outcome 11	Description: Demonstrate the technological protection measures for digital content distribution in a Digital Rights Management framework. Delivered between 2007 and 2010.
Status	ON TARGET: ACID Press.

MULTI-USER ENVIRONMENTS PROGRAM

Outcome 12	Description: Demonstrate effective group-based, online activity through tele-collaboration and digital communities. Delivered between 2003 and 2010.
Status	ON TARGET: Collaboratio, ACI, Virtual Genesis.
Outcome 13	Description: Demonstrate multi-user content and software in the CRCs key industries. Delivered between 2004 and 2007.
Status	BEHIND SCHEDULE.
Outcome 14	Description: Demonstrate how to implement sustainable applications of multi-user technologies and experiences. Delivered between 2007 and 2010.
Status	ON TARGET: Most projects have these consideration built into them.

ASSESSMENT OF TRACK RECORD

VIRTUAL HERITAGE PROGRAM

Outcome 15	Description: Demonstrate techniques for combining data acquisition and media development to enhance the preservation, production and dissemination of Australian heritage experiences. Delivered between 2004 and 2006.
Status	ON TARGET: Digital Songlines.
Outcome 16	Description: Demonstrate new data acquisition and digital production for heritage assets. Delivery Targets: New genres and data capture requirements will be delivered between 2005 and 2006.
Status	ON TARGET: Specific project activities have not commenced.
Outcome 17	Description: Demonstrate how cultural heritage can be disseminated and understood by the wider community. Prototypes will be delivered by 2005.
Status	ON TARGET: Lightweight Stereo Glasses, Digital Songlines, ACIN.
Outcome 18	Description: Demonstrate cultural and commercial opportunities for Australian heritage products worldwide. Delivered between 2007 and 2010.
Status	ON TARGET: Specific project activities have not commenced.

EDUCATION AND TRAINING PROGRAM

Outcome 19	Description: Implement scholarship funding arrangements for students in core research.
Status	ON TARGET: Project funding documents include specific funds for students.
Outcome 20	Description: Delivery of a critical mass of new research talent into an emerging industry. Complete output will be delivered through a series of milestones from 2003 through 2010.
Status	ON TARGET: Student progress is tracked by the Education Director.
Outcome 21	Description: Implement industry-university exchange opportunities for students. Complete output will be delivered through a series of milestones from 2004 through 2010.
Status	BEHIND SCHEDULE: No exchanges to date.

TECHNOLOGY TRANSFER PROGRAM

Outcome 22	Description: Implement a formal environment for students, researchers and industry participants to meet and exchange knowledge, ideas and research outputs. Conference will be delivered on an annual basis with a total of 7 conferences running over the life of the Centre, 2003 – 2010.
Status	ON TARGET: ACID Conference held October 12-13, 2004.
Outcome 23	Description: Implement a formal environment for attracting new participants into research projects and other activities of the centre. Exposition to be delivered on an annual basis.
Status	ON TARGET: ACID Conference held October 12-13, 2004.
Outcome 24	Description: Implement an informal presentation and student teaching environment on progressive research outputs.
Status	ON TARGET: ACID Speakeasy.
Outcome 25	Description: Specify the needs of a Professional Education and Commercial Training Program.
Status	ON TARGET: Activity has not commenced.
Outcome 26	Description: Implement a Publications program.
Status	ON TARGET: Formal arrangements finalised in 2004.
Outcome 27	Description: Implement the framework and intended outcomes of the Innovation Forums and Expositions.
Status	ON TARGET: ACID Innovation forums - May and October 2004.

COMMERCIALISATION PROGRAM

Outcome 28	Description: Implement the exploitation requirements of interaction design R&D outcomes for commercial gain.
Status	ON TARGET: Business infrastructure and project funding rounds fully operationalised.
Outcome 29	Description: Implement the Commercialisation Plan.
Status	AHEAD of SCHEDULE: Commercialisation Plan to be finalised in November 2004.
Outcome 30	Description: Develop commercialisation prototypes for use by the CRC and its industry participants.
Status	AHEAD of SCHEDULE: Commercial prototypes have emerged 12 months ahead of plan.
Outcome 31	Description: Deploy R&D to enterprise development through the creation of flexible, transferable and reproducible processes for commercialisation. Delivery Targets: 2004 and ongoing.
Status	ON TARGET: Business infrastructure and project funding rounds fully operationalised.
Outcome 32	Description: Implement IP Management Plan. Delivery Targets: 2003 and ongoing.
Status	ON TARGET: Business infrastructure implemented and innovation management software installed(iMap).
Outcome 33	Description: Conduct research for national and international companies through several Consortia of SMEs and researchers that are configured to provide R&D services.
Status	BEHIND SCHEDULE: Business infrascture implemented but project activity commenced later than expected resulting in little mature capacity for capturing R&D contracts.

ASSESSMENT OF TRACK RECORD

The following table provides an overview of outputs and the status of those outputs within each ACID project.

TRACK RECORD: OUTPUTS STATUS REPORT

	Outputs					People				Engagement		
Project	Prototype	Content	Process	Method	Publication	Staff (U)	Staff (I)	R.A.Hired	Students	Consortium	Int'l	Sponsors
Smart Living												
Interactive Lounge	s3	s1	s1	s4								
Location Based Games	d1,s1	s2	d1,s1	d4	s1	5	2	3	7		s1	s1,d1
Communities and Places	s1	s1	s1	n1		13	3	2	2			
Mobile Content												d2
Connected Communities												d1,s1
Digital Media												
Dynamic Content	s3,n2	s3		s2,n1	d1,s2,n1	8	2	3	2			
Audio Spatialisation FS					n1	5	2	1				
Audio Spatialisation												
Media Station												
ACID Press												s1,n1
Multi-user Environments												
Citadel	s3	s1	s2, n2	n9		8	2		9			n1
Collaboration	d1	s10	n1	n10	d1	7	2	2	2			
ACIN	s1	s1	n2		n3	7	3		2			s1
Virtual Heritage												
Digital Songlines	s3	s2	d1	d4, s1	s1	13	5	2	27	s1		
Lightweight Stereo Glasses	n1	n1	s1	s1	s1	3	1	1				
TOTALS	d2,s15,n3	s21,n1	d2,s6,n5	d8,s4,n21	d1,s5,n5	69	22	14	51	s1,n1	s1	d4,s4,n1

(s) indicates under development and on schedule
(n) indicates not yet underway
(d) indicates done

Projects with no shading are yet to commence.

Numeric values above represent project ouput quanities.

TRACK RECORD: OUTCOMES STATUS REPORT

	Outcomes									Education	
Project	Tech Transfer			Commercialisation					Community	UG	PG
	Courses	Uses	Prospectus	License	Spin-off	Consultancy	Contract	Prospectus			
Smart Living											
Interactive Lounge							n1		n1		1
Location Based Games	s1					n1	n1	s1,n5	d1	1	
Communities and Places								s1			5
Mobile Content											
Connected Communities											
Digital Media											
Dynamic Content								n1	s1		1
Audio Spatialisation FS											
Audio Spatialisation											
Media Station											
ACID Press											
Multi-user Environments											
Citadel								n1			5
Collaboration											
ACIN									n3	1	2
Virtual Heritage											
Digital Songlines						n1		s2,n1		25	
Lightweight Stereo Glasses								s1,n1			
TOTALS	s1					n2	n2	s5,n9	d1,s1,n4	27	14

(s) indicates under development and on schedule
(n) indicates not yet underway
(d) indicates done

Numeric values above represent project ouput quanities.

"640k SHOULD BE ENOUGH FOR ANYBODY."

Bill Gates, 1981

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