

Summary of Successful Projects for Seed Funding for ARC Research Networks in 2003

Sorted by State and University

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Table 1: Number of funded projects by State and University

State or University	Number of funded projects
<i>Australian Capital Territory</i>	25
The Australian National University	24
University of Canberra	1
<i>New South Wales</i>	44
Macquarie University	6
The University of New England	2
The University of New South Wales	10
The University of Newcastle	1
The University of Sydney	17
University of Technology, Sydney	3
University of Western Sydney	2
University of Wollongong	3
<i>Queensland</i>	25
Griffith University	3
James Cook University	1
Queensland University of Technology	3
The University of Queensland	17
University of Southern Queensland	1
<i>South Australia</i>	12
The Flinders University of South Australia	4
The University of Adelaide	4
University of South Australia	4
<i>Tasmania</i>	4
University of Tasmania	4
<i>Victoria</i>	30
Australian Catholic University	1
Deakin University	3
La Trobe University	1
Monash University	4
RMIT University	2
The University of Melbourne	19
<i>Western Australia</i>	7
Curtin University of Technology	2
Murdoch University	2
The University of Western Australia	3

Australian Capital Territory

The Australian National University

Project Title	Project Id	Network Convenor	Allocation in 2003
AUSSGRID: The Australian Social Science Data Grid	SR0354484	Dr DA Mitchell	\$10,000

Project Abstract

The establishment of AUSSGrid will enhance the ability of social scientists in academic, government and private sectors, to digitise, preserve and disseminate social science data holdings of national significance. AUSSGrid will allow social scientists to better co-ordinate research, avoid unnecessary duplication of data collection, and maximise researcher access to the products of government funded research. It will create a resource base that will enable the social sciences to take advantage of emerging grid technologies. These developments will have implications for how research is devised, conducted and disseminated, with major applications in government administration and policy-making.

Project Title	Project Id	Network Convenor	Allocation in 2003
China's Asia-Pacific Century: Enhancing Australia's Engagement	SR0354509	Dr LP Edwards	\$20,000

Project Abstract

The emerging regional economic sphere of China, Taiwan and Hong Kong, encompassing close to a quarter of humankind, is fast becoming one of the world's two major powerhouses--and a potential locus for international conflict. Australia contains a very large and robust field of hundreds of modern China specialists--as many as all of Europe--but we are very spread out geographically and divided among twenty disciplines. There is a patent, felt need for concerted, collaborative, multi-disciplinary research and analysis, as a wide range of important potential synergies exist.

Project Title	Project Id	Network Convenor	Allocation in 2003
Soil Acidification, the Environment and Production	SR0354511	Dr BC Macdonald	\$10,000

Project Abstract

Soil acidification affects 50% of Australia's agricultural land and is the most important economic constraint to agricultural. In addition, major external offsite impacts include greenhouse gas emissions, reduced stream and ground water health, reduced biodiversity, increased salinity and waterlogging and infrastructure damage. The aim of this network is to quantify the acidification processes and the connection of these processes to the offsite impacts. This will lead to development of strategic plans for acidified and potential acid soils and associate offsite impacts, as well as identifying knowledge gaps and building research and policy synergies.

Project Title	Project Id	Network Convenor	Allocation in 2003
Adaptive Optics for Australian Astronomy, Medicine, Industry, and Defence	SR0354517	Dr PJ McGregor	\$20,000

Project Abstract

Adaptive optics is a technique for correcting wavefront distortions in light beams to improve optical imaging performance. The Research Network for Adaptive Optics aims to draw together isolated Australian and New Zealand research groups working on adaptive optics applications in disparate areas to achieve a critical mass of researchers in this burgeoning field. Adaptive optics has wide application in areas as diverse as astronomy, vision science, ophthalmology, microscopy, optical communications, laser radar, and laser beam shaping. The Research Network will coordinate and expand Australian involvement in these areas and inform industry, as have similar networks in the USA and Europe.

Project Title	Project Id	Network Convenor	Allocation in 2003
Network for Optical and Quantum Science and Technology	SR0354519	Dr KG Baldwin	\$30,000

Project Abstract

This Network links world-class researchers involved with the investigation and application of light and atoms, particularly at the quantum level. Three ARC Centres of Excellence* will be linked and networked with other successful research groups in optics, including atom optics and Bose-Einstein condensation (BEC), quantum computing, optical switching, imaging, and interferometry. The Network-facilitated interactions will foster multidisciplinary approaches linking the majority of the Australian optics community, and harnessing Australia's existing research excellence in optics to address major questions in optical and quantum science and technology. * Quantum-Atom Optics (ACQAO), Quantum Computing Technology (CQCT), Ultrahigh Bandwidth Devices and Optical Systems (CUDOS).

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Governance and Regulation Network (AGaRN)	SR0354528	Prof RA Rhodes	\$10,000

Project Abstract

By speaking truth to power, and finding out who gets what, when, where and how, AGaRN seeks to build knowledge through collaborations and create a national centre of excellence in governance and regulation. Focusing on governance, or steering society through networks (public, private and voluntary), it seeks to improve the policymaking and regulatory capacity of Australian governments by providing better evidence-based policy advice. Through AUSSGrid (Australian Social Science Data Grid) it will access and make available policy-relevant academic and governmental databases; build a policy-based information gateway; and unlock historical and interview data by making it available in digitised form.

Project Title	Project Id	Network Convenor	Allocation in 2003
ARC Research Network for Renewable Energy	SR0354551	Prof AW Blakers	\$20,000

Project Abstract

The proposed Research Network will integrate and coordinate the entire research field of renewable energy in Australia. This Network covers a diverse range of technologies, and includes all prominent researchers in the area of renewable energy in Australia. The Network is strengthened by the inclusion of key people from government agencies, industry, industry associations and international research organisations. Australia is a leading player in the world's renewable energy industry. An effective structure for networking and for the exchange of people, information and research results will maintain and improve Australia's position in this rapidly growing industry.

Project Title	Project Id	Network Convenor	Allocation in 2003
To develop an Indigenous Governance Research Network	SR0354573	Prof M Dodson	\$20,000

Project Abstract

This initiative is the first national attempt at networking research in the emerging field of Indigenous Governance. The aim is to develop a collaborative and productive research network on Indigenous Governance, well informed by expertise from Australia and internationally. The Network aims, using best technology, to enable researchers and practitioners to share expertise; facilitate inter-disciplinary collaboration; develop research tools; disseminate best practice; and mentor the development of young researchers. The Network will be unique nationally and internationally. Expected outcomes include, improved research practice; enhanced understanding of the components of Indigenous governance; practical application of research findings; and enhanced governance capacity.

Project Title	Project Id	Network Convenor	Allocation in 2003
Sustainable Futures through Understanding Past Human Responses to Environmental Change.	SR0354580	Dr SG Haberle	\$10,000

Project Abstract

This Network brings together researchers within archaeology and environmental sciences to develop cross-disciplinary and internationally comparative approaches to understanding past human responses to rapid environmental change. Integration of skills and perspectives from the Humanities and Sciences will create a generation of scholars able to work across different theoretical frameworks to formulate credible responses to the challenge of creating sustainable societies in a changing world. Through a greater understanding of past societies' reactions to rapid environmental change, the Network will build on existing leading edge research and create a more informed guide to a sustainable future.

Project Title	Project Id	Network Convenor	Allocation in 2003
The Earth System Dynamics Network for a Sustainable Australia	SR0354605	Prof GS Lister	\$10,000

Project Abstract

Earth comprises systems of enormous complexity that sustain all life and control the distribution of mineral, energy and water resources. Thus understanding these dynamic systems provides the key to sustainable resource usage. The aim of The Earth System Dynamics Network is to facilitate scientific interactions through establishment of an earth and environmental sciences grid that links national and regional data assets with high performance computing through open sourced middleware. The result will be an unparalleled predictive capacity for complex Earth systems. The outcome will be confidence in the knowledge that underpins our decisions as stakeholders to keep Australia sustainable.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Bioinformatics Grid Network	SR0354610	Prof S Easteal	\$10,000

Project Abstract

OzBioGrid will be an open source, collaborative, bioinformatics environment supporting Australian biotechnology and life science researchers on the Grid. Researchers will be able to use distributed resources including databases, computational power and analytical tools, and to collaborate remotely, using customized work environments. With hubs in Brisbane, Canberra and Melbourne, and nodes elsewhere, OzBioGrid will build on Australia's high performance computing capacity. It will greatly enhance Australia's research capability by networking ARC and other centres of excellence, major national research facilities, independent researchers, biotechnology companies, bioinformatics research centres, public databases. It will be linked to bio-grid initiatives overseas.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian City and Regional Network	SR0354668	Prof PN Troy	\$10,000

Project Abstract

The Network aims to sponsor, sustain and encourage multidisciplinary and transdisciplinary research into problems in and of Australian cities and the reasons for their form and structure. It will develop a national collaborative research training program. The network will develop a communication path between academics, industry and government enabling the development of a more informed exploration of urban development policies. It will also lead to the identification of new economic opportunities for the development of cities and regions.

Project Title	Project Id	Network Convenor	Allocation in 2003
Sustainable terrestrial and riverine systems through integrated assessment and modelling	SR0354677	Prof AJ Jakeman	\$10,000

Project Abstract

Australia must take the lead internationally in sustainability assessment and management; it hosts both the problems and expertise, and is proactive in integrating research and management. This Initiative unites, for the first time, leading researchers from all relevant disciplines to advance our knowledge for achieving sustainable terrestrial and riverine systems (STARS). The intended network can produce assessments, strategies and policy directions that are objective, adaptive and inclusive. It can evaluate trade-offs between sustainability strategies, integrating research and outcomes, making them accessible to managers. It will build a coordinated research capability that directly supports Australia's goal of ecologically sustainable development.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Semiconductor Nanotechnology Network	SR0354682	Prof C Jagadish	\$10,000

Project Abstract

Fundamental and strategic research in the area of semiconductor nanotechnology covering theoretical modeling, nanostructure growth, fabrication, characterization, nano-electronic and nano-photonics devices is essential for future developments in computing, communications, information technology and defence industries. The network aims to bring together all the stakeholders to share the facilities, expertise to make a major impact in the field. Network will organize workshops, conferences to exchange ideas, to identify infrastructure needs, to promote interdisciplinary research and to expose post-doctoral fellows and postgraduate students to internationally competitive research environment. Network aims to enhance international and industry links by exchange of staff and students.

Project Title	Project Id	Network Convenor	Allocation in 2003
Ocean Discovery Network	SR0354683	Prof P De Deckker	\$10,000

Project Abstract

The ODN will focus research on Australia's vast marine jurisdiction by:

1. Providing a forum for developing coordinated marine research enterprises in the National Research Priority areas of biodiversity, exploitation of resources, seaway security and climate.
2. Developing innovative international research and providing a mechanism for involvement in international science programs
3. Advancing research capabilities between national and international ocean scientists with web-based data-exchange services and links to global databases
4. Facilitating the transfer of research skills to young investigators
5. Maximising multidisciplinary use of Australian ocean science capacity, particularly the National Facility Research Vessel and the RSV Aurora Australis.

Project Title	Project Id	Network Convenor	Allocation in 2003
Energetically Open Systems Research Network Study	SR0354716	Prof RL Dewar	\$10,000

Project Abstract

Conceptual frameworks arising in the physical sciences, such as non-equilibrium statistical mechanics and thermodynamics, synergetics, chaos and dynamical systems theory, are seminal in the emerging science of complexity. This study will lay the groundwork for a network to link Australian and overseas research on these fundamental concepts, and their application within the context of entropy-producing systems vital to the long-term sustainability of the earth oceans, atmosphere, biosphere, CO2-free energy production, space and solar environment. The network would facilitate the development of young investigators and be linked into wider complex systems networks such as the CSIRO Centre for Complex Systems Science.

Project Title	Project Id	Network Convenor	Allocation in 2003
NETVISION: AUSTRALIA'S NATIONAL VISION RESEARCH NETWORK	SR0354726	Dr IG Morgan	\$10,000

Project Abstract

Vision is the most important human sense. Visual malfunctions pose major health challenges. Vision provides a window into the brain, for studying perception, cognition and consciousness. It is integral to human cultural and social development. It provides opportunities for technological advances in diagnostics, artificial vision, robotics, and surveillance. Vision is therefore crucial to three of the National Priority Areas. The National Vision Network will create a coherent, interactive and innovative research base in the vision sciences, linked to end-users in areas ranging from the art, entertainment and fashion industries, through health and education, to border protection and counter-terrorism.

Project Title	Project Id	Network Convenor	Allocation in 2003
Smart Use of Information Technologies (SUITs)	SR0354729	Prof SD Gregor	\$10,000

Project Abstract

The SUITs network will develop critical mass in world-class, leading-edge research into the smart use of information and communication technology (ICT) through integration of research within the dispersed Australian ICT research community and through facilitating international linkages. The network will undertake research applicable in key sectors including the health, education, service, knowledge and media industries. The aim is to establish a higher order of coordination and collaboration in research into ICT applications. The feasibility study proposed will engage key stakeholders, refine research goals and investigate linkage mechanisms to improve Australia's ICT research and its contribution to economic and social well-being.

Project Title	Project Id	Network Convenor	Allocation in 2003
Governance and Economic Reform in the Asia-Pacific Region: The Next Steps	SR0354730	Prof AJ MacIntyre	\$20,000

Project Abstract

This Initiative brings together economists, political scientists, and academic lawyers with a track record of influential policy-oriented research on the design and implementation of economic and governance reforms in the Asia-Pacific region. The reform agenda covers corporate governance, national economic policy and political institutions, and frameworks for international cooperation around the Pacific region. Key issues are institutional transparency and accountability, economic efficiency and growth, and transnational cooperation. By holding a workshop, building a bibliometric survey, and linking research through a well-designed website, the initiative will propose an international network designed to further research on the problems of economic and governance reform.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Population Research Network: Cross-Disciplinary Collaborations in Research on Australia's Population Transformations and Their Social, Economic and Environmental Implications	SR0354771	Dr S Khoo	\$20,000

Project Abstract

The wellbeing and sustainability of Australia's population are national priority issues. The primary outcome of the Initiative will be a plan for a Network that will promote collaboration among researchers across universities and disciplines whose work focuses on the following issues relating to Australia's population: family and work; health and longevity; immigration and identity; and environment and settlement. Linkages will be established with Commonwealth and State/Territory governments to better communicate the results of population research for policy development, and with researchers internationally to facilitate comparative work that is crucial to further theoretical and methodological development in the population field.

Project Title	Project Id	Network Convenor	Allocation in 2003
Migration and its socio-economic and cultural consequences in Australia	SR0354802	Dr M Thomas	\$40,000

Project Abstract

This network will develop an interdisciplinary multi-layered approach to understanding migration processes and the related social, health and economic effects. With the input of scholars in diverse fields, the network will play a significant role in the development of a national migration database, in training early career researchers and in developing social policy. It will also stimulate new areas of research, integrate the dynamics of migrant populations with migrants' own experiences and perceptions, add to knowledge in the priority area safeguarding Australia, and enhance our understanding of the cultural, social and economic impact on Australia of a significant migrant presence.

Project Title	Project Id	Network Convenor	Allocation in 2003
Innovative Materials Production, Processing and Analysis Network	SR0354821	Prof JS Williams	\$30,000

Project Abstract

Materials science and engineering is decidedly interdisciplinary, covering a diverse spectrum of research from biology to construction, with an equally broad applications span encompassing all manufacturing industry. Australia has distinct strengths in materials but it has been difficult to promote sufficient interaction across discipline boundaries to fully exploit such strengths. The current network focuses on interdisciplinary materials interactions nationally by: i) bringing the materials community together at an annual workshop, ii) exposing PhD students and young researchers to cross-disciplinary research initiatives and facilities, iii) identifying common infrastructure needs, iv) linking with industry networks, eg AMTN, and to the international community.

Project Title	Project Id	Network Convenor	Allocation in 2003
Indigenous Collections and Knowledge Archives Research Network	SR0354824	Prof H Morphy	\$30,000

Project Abstract

We will develop an ongoing inter-disciplinary network of researchers (museum researchers, anthropologists, art historians, musicologists, linguists) working with Indigenous collections (ethnographic, anthropological, fine art) and knowledge archives (sound, film, photographic and print). The network will create an exceptional research resource, and facilitate communication between holding institutions, researchers and local Indigenous communities. As well as facilitating pure research (eg. documenting the material, investigating memory systems and processes of cultural change) the project will play a significant role in community development (e. g. repatriation of images and information to Indigenous communities will benefit present generations and fulfil social, emotional and intellectual needs).

Project Title	Project Id	Network Convenor	Allocation in 2003
Pacific Futures Network: Security, Governance and Development in the Pacific Island Region	SR0354865	Mr D Hegarty	\$20,000

Project Abstract

The proposed research network will interweave the following strands in order to create an entirely new level and quality of diagnosis, prognosis and action in Pacific-oriented research: (a) ANU and Australian expertise and knowledge base; (b) regional expertise, especially in universities, research institutes, archives and cultural institutions; (c) digital expertise; (d) existing networking capacity and future potential. Thematically, it will place primary emphasis on research on conventional and human security, governance, development and other issues pertaining to the condition of the politics and economies of Australia's near Pacific neighbours, including the Melanesian states characterised as weak and more recently, failed.

University of Canberra

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Comprehensive Security Research Network (ACSRN): analysing, anticipating and integrating national responses to multiple security threats	SR0354786	A/Prof JM Kyd	\$10,000

Project Abstract

This network brings together a unique, broad-based combination of researchers and professionals and aims to facilitate research programs that will enhance the security and safety of Australia. The network will improve awareness, integration and coordination of existing national (and international) resources for the development of new protective policies, capabilities and procedures. The significance will be a more protected Australia achieved through: (a) development of a security network-of-networks (b) identification and coordination of innovative research programs; (c) advances in knowledge of and solutions to new and existing threats; and (d) development of novel, integrated and synergistic threat management options for government.

New South Wales

Macquarie University

Project Title	Project Id	Network Convenor	Allocation in 2003
Intelligent Applications Through The Semantic Web	SR0354476	Dr AC Nayak	\$20,000

Project Abstract

The primary aim of the proposed bid is to build a network of Australian researchers and their international peers for condresearch into the fundamental as well as applied aspects of the Semantic Web. By incorporating meaning of web-content in a form that can be accessed and processed by intelligent software agents, the Semantic Web will allow computers and humans to work in cooperation. This research will address the needs of both the Australian government and industry that provide and make smart use of information available on the Web. It will ensure Australian preparedness for the next-generation web technology.

Project Title	Project Id	Network Convenor	Allocation in 2003
The Computational Processing of Human Language	SR0354513	Prof R Dale	\$20,000

Project Abstract

Language is what makes us distinctly human; consequently, language attracts interest from many fields of research, particularly linguistics, psychology, and cognitive science. Moreover, language is the primary medium for the storage and dissemination of knowledge, a fact that has drawn many computer scientists to attempt to process, analyse and understand language. This network will bridge the many disciplines that are concerned with language, explore new ways in which computational models inform our understanding of human languages, and exploit new opportunities for applying theories of language in the development of human language technologies.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australia-NZ Network for Vegetation Function and Futures	SR0354582	Prof M Westoby	\$20,000

Project Abstract

Plants shape our landscapes and drive ecosystem processes from local to global scale. Plant species vary widely in quantitative functional traits. Global datasets about functional variation are emerging, with Australian and NZ leadership. A network would be supported in both Australia and NZ and with strong links elsewhere. It would target seven ambitious but achievable research developments. Each of them demands intensive conversation between separate disciplines. Networking across all seven strands will create a broader linkage, spanning across palaeobiology, ecosystem function, vegetation structure, global change, ecophysiology, phylogeny, genomics, ecoinformatics and evolutionary theory.

Project Title	Project Id	Network Convenor	Allocation in 2003
The Australian Climate System Network	SR0354594	Prof AJ Pitman	\$20,000

Project Abstract

The climate system integrates the atmosphere, oceans, cryosphere, biosphere, land-surface and the fluxes of energy, water and biogeochemical quantities between these elements. Changes in climate affect Australia dramatically: for example, the cost of the recent drought exceeded \$10 billion. To enable internationally competitive climate system research, networking is required to enhance our national capability and our international connectivity. We will explore the establishment of a Climate System Network by facilitating communication between Universities, government agencies and CRCs. The Climate System Network will enable new climate-related questions relating to the sustainability of the Australian physical and Human environments to be explored.

Project Title	Project Id	Network Convenor	Allocation in 2003
Fluorescence Applications in Biotechnology and Life Sciences	SR0354630	A/Prof EM Goldys	\$20,000

Project Abstract

The Network in Fluorescence applications in biotechnology and life sciences will coordinate a research program relating to applications of fluorescence whose proper resolution requires a high degree of interaction between biology, physics, chemistry, bioengineering and medicine. These would be applied to industrially relevant problems in areas such as public health, biotechnology, safety of foods, chemical biology and environmental monitoring. Approaches such as highly selective fluorescent labelling of targets using appropriate immunological and molecular techniques and purpose-engineered fluorochromes accompanied by the development of specialised instrumentation will capitalise on the multi-disciplinary research strengths in Australia and lead towards tangible industrial outcomes.

Project Title	Project Id	Network Convenor	Allocation in 2003
Developmental disorders of language: Causes and treatments	SR0354750	Prof M Coltheart	\$20,000

Project Abstract

Disorders in the production and comprehension of spoken and written language affect 15% of children and if untreated persist through adulthood. They are powerfully influenced by genetics, but are uniquely dependent on learning. This initiative aims to create a network unique in the world by uniting researchers with expertise in research from infancy through adulthood, in diagnosis and in treatment, in spoken and written production and comprehension, and in both cognitive and molecular genetic research. A network of research-oriented clinics for the treatment of these disorders will also be established.

The University of New England

Project Title	Project Id	Network Convenor	Allocation in 2003
Interdisciplinary Research Network on Property Rights in Natural Resource Management	SR0354516	Prof DJ Brunckhorst	\$10,000

Project Abstract

Property rights are increasingly important in resource management, for titleholders and for the long-term viability of ecological resources. Property rights are historically and traditionally embedded in cultural practices and attitudes influencing the access, use and management of natural resources, ecosystem services and cultural assets. Understanding the history and future of property systems across social-ecological landscapes is fragmented across disciplines, including natural sciences, social sciences and humanities. The interdisciplinary network on property rights in resource management will draw together researchers, building new synergies, novel research agendas and solutions for end users including property owners, resource managers, policy makers, planners and valuers.

Project Title	Project Id	Network Convenor	Allocation in 2003
Enabling Sciences Education (EnSE) Research Network	SR0354538	Prof JE Pegg	\$30,000

Project Abstract

The Network aims to ensure the long-term ability of Australians to excel in scientific and technological innovation at all levels of community activity. This will be achieved by establishing significant and ambitious research agendas for improving the teaching and learning of Mathematics, Science and Technology in primary, secondary and tertiary education sectors. Of significance will be the productive synergies flowing from uniting, across the three disciplines, Australia's most outstanding, experienced and dedicated researchers with new and mid-career colleagues. Expected outcomes include a diverse but cohesive and collaborative research community that provides international leadership in helping students achieve their full potential.

The University of New South Wales

Project Title	Project Id	Network Convenor	Allocation in 2003
A collaboration to study organisational and social factors of work practice change to reduce risk of harm in healthcare.	SR0354508	Dr R Sorensen	\$10,000

Project Abstract

Preventing harm is a national priority in healthcare and research. Recent studies that quantified the extent of healthcare error has focussed policy attention on technical solutions to manage risk. This focus has not brought hoped-for sustainable improvement because the often-invisible environmental barriers to change have not been identified and addressed. A cross-disciplinary collaboration of academics, consumers and industry partners will link to investigate the organisational, social and psychological factors that facilitate or impede change and the conditions under which sustainable improvement can be achieved. The collaboration is unique. Economic, industrial, societal and professional outcomes with international implications are expected.

Project Title	Project Id	Network Convenor	Allocation in 2003
Network for Advanced Materials for Engineering Applications	SR0354521	Prof DJ Young	\$10,000

Project Abstract

Advances in modern technology and a competitive manufacturing industry depend critically on new and improved materials. The pace of change is rapid, and many countries are taking steps to improve and coordinate developments. Australia has a very successful record of materials research and innovation and is developing a substantial infrastructure in the area. However, the materials research community is scattered, and research effectiveness is sometimes lessened by a lack of critical mass. This network will bring together university, government and industry researchers, and promote collaborative research, access to each other's facilities, staff and student exchanges, improved access to existing infrastructure and coordinated planning for new acquisitions.

Project Title	Project Id	Network Convenor	Allocation in 2003
Management and Consumer Decision Making Network	SR0354611	Prof TM Devinney	\$30,000

Project Abstract

This network brings together a multi-disciplinary research group to enhance frontier science in managerial/consumer decision making and choice behaviour. Our focus will on using our interaction to develop normative and descriptive theory by operationalising theories and methods from a mixture of disciplines. Individual/group decisions/choices underlie many aggregate societal phenomena like election outcomes, consumer demand, technology adoption, etc. Better understanding of such processes will lead to better models, better forecasts and better decision outcomes for Australia, and smarter use of information and data; something that can only come from a multi-disciplinary interaction of theory and method.

Project Title	Project Id	Network Convenor	Allocation in 2003
Imagined Futures: Re-Thinking Local Health and Human Security in a Globalised World	SR0354621	Prof SC Kippax	\$10,000

Project Abstract

Global health and conflict are key concerns for the new millennium. Characterised by rapid socio-cultural change, and widespread movements of people, ranging from the internationalisation of labour to forced migration, globalisation has generated a new set of problematics in relation to health and human security. Scholars from a range of disciplines will come together to analyse and debate the intersections of conflict and risk with the production of illness and disease and the determination of its response. This international collaborative network, Imagined Futures, will re-imagine and re-think constructive health futures: strengthening civil society and participation, and creating an equitable globalisation.

Project Title	Project Id	Network Convenor	Allocation in 2003
Network for Australian security technologies integration	SR0354623	Prof Dr JC Lai	\$20,000

Project Abstract

The frontline of community safety is security technologies which include sensors to track movements and conversations of suspects; signal processing techniques for extracting information; intelligent search/audit techniques to track financial transactions; analysis techniques for predicting the spread of epidemic; and above all human factors in security operations. The aim of this initiative is to establish a network for "safeguarding Australia". This network, built on the concept of "network of networks", draws on the expertise of researchers and practitioners from diverse fields to provide an integrated approach towards development and use of security technologies for the safety of the community.

Project Title	Project Id	Network Convenor	Allocation in 2003
Young Investigators Network on Next Generation Electronic devices	SR0354640	Dr AP Micolich	\$10,000

Project Abstract

This initiative will build an active, dynamic and strongly interdisciplinary network of young Australian scientists (most awarded their Ph.D. after 1985) working on the development of innovative electronic devices a national research priority area with enormous economic and technological opportunity. The network will enable a nationally coordinated, internationally competitive approach that capitalizes on untapped opportunities, utilises existing/emerging Australian expertise and develops strong supporting links with similar networks overseas. The initiative will produce a public showcase of Australian strengths and opportunities in this field, and enable stronger collaborations and cooperative logistics management through the development of a dedicated network management website.

Project Title	Project Id	Network Convenor	Allocation in 2003
Particulate Science and Technology Network	SR0354656	Prof AB Yu	\$20,000

Project Abstract

Particulate Science and Technology (PST) is a rapidly developing interdisciplinary research field concerned with particle-related phenomena at different time and length scales and represents a very significant research and development effort in Australia for many years. This network is formed by linking the world-recognized research centres/groups with different expertise. Its aim is to provide greater collaboration among the Australian and overseas researchers and enhance the scale and focus of particulate research. It will help develop and maintain Australia's leading position in PST, generating massive research outcomes and training that can lead to improvement in resource, energy, process and allied industries.

Project Title	Project Id	Network Convenor	Allocation in 2003
Interactive Digital Media Matrix	SR0354757	Prof J Shaw	\$30,000

Project Abstract

The Interactive Digital Media Matrix (iDMM) links national and international researchers in the fields of new media, information and communications technology (ICT), cultural theory and cognitive science. The network underscores the growing interdependence of these four cornerstone fields and their convergent role in facilitating advances in smart information use. The iDMM brings together expressive and technical resources in digital imaging, multimedia, content generation, database architecture and cultural critique. Able to embody significant depth and achievement with contributions from the most aspirant young scholars, the network will address the most challenging issues in the innovative use of digital media.

Project Title	Project Id	Network Convenor	Allocation in 2003
The Australian Tissue Engineering Network	SR0354797	A/Prof CD McFarland	\$20,000

Project Abstract

Driven by four key nodes across the country, the Initiative aims to bring together geographically and financially separated groups into a critical mass of cell and tissue engineering research. This new and rapidly-growing field uses a bio-synthetic approach to replace, repair or regenerate damaged tissues and organs. The Initiative will build the framework which will enable the Network to: identify appropriate expertise, manage duplication, enhance communication, bring together innovative skill sets, create linkages, generate focussed research programs and foster novel commercial opportunities. Ultimately the Initiative and Network will deliver an improved quality of life, reduced healthcare costs, and increased productivity to Australia.

Project Title	Project Id	Network Convenor	Allocation in 2003
Innovative risk analysis, assessment, rehabilitation and strengthening of aging critical civil infrastructure	SR0354894	Prof MA Bradford	\$10,000

Project Abstract

Much essential civil engineering infrastructure such as bridges, buildings, dams, pipelines and pavements was commissioned many decades ago, and sustaining the integrity of this infrastructure in developed nations as it ages is now considered to be a major challenge to the engineering and scientific community.

Australia is not spared by the ramifications of its aging civil assets, and identification and rectification procedures that are often ad-hoc now represent a sizeable proportion of the GDP. This Research Network draws together the leading Australian research groups in engineering and applied mechanics in a coordinated program to address this most important cost to the community.

The University of Newcastle

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Indigenous Knowledges and Research Network (AIKRN)	SR0354900	Prof J Lester	\$30,000

Project Abstract

The development of a multi-cross discipline, collaborative Australian Indigenous Knowledges and Research Network, working in full-partnership with Indigenous communities, would assist the development of Indigenous studies in areas encompassing personal wellbeing, social, political, management, economic, cultural and physical studies and improvement of the Indigenous holistic individual and collective well-being and independence. The Network will facilitate research outcomes which position, improve, empower and encourage Indigenous self-management of the research agenda. Integral to this is the ongoing development and support of Indigenous researchers as a key focus of the collective harnessing and promotion of positive research training best practice.

The University of Sydney

Project Title	Project Id	Network Convenor	Allocation in 2003
Metals in Medicine	SR0354474	Prof PA Lay	\$30,000

Project Abstract

Metal-based drugs account for several billion dollars of pharmaceutical sales worldwide, but proportionally much less research and development has focussed on this area than organic drugs. Australia has played a pivotal role in the early development of metal-based pharmaceuticals, which remains a research strength. The dual aims of the initiative are to provide a network for a vibrant industry based around metals in medicine and to improve the health of Australians. The initiative will foster national and international cross-disciplinary collaborations to address the impediments holding back Australia's potential to take full advantage of our research strength in metals in medicine.

Project Title	Project Id	Network Convenor	Allocation in 2003
BRAINnet: Brain Research And Integrative Neuroscience Network	SR0354494	A/Prof LM Williams	\$10,000

Project Abstract

The brain is the ultimate frontier of science, and its complexity requires an integrative approach to neuroscience. This initiative will facilitate a unique integration of disciplines (biological, physical, computational) and scales of focus (single neurons to networks to whole-brain), within a high profile Network of Australian and international players. The Network will be harnessed by a centralized hub for sharing of data and techniques, and mentoring of early career researchers. The principal socio-economic and discovery outcomes will flow from the exceptionally strong foundations in fundamental and applied science, established collaboration, and demonstrated capacity for development and commercialization of frontier biotechnologies.

Project Title	Project Id	Network Convenor	Allocation in 2003
Frontier technologies, prototypes and strategic positioning for the international radio telescope, the Square Kilometre Array	SR0354527	Dr AJ Green	\$10,000

Project Abstract

This Network will forge new linkages between scientists and engineers to design and enable an advanced prototype for the international next-generation radio telescope, the Square Kilometre Array (SKA). The prototype will make fundamental new tests of general relativity and the physics of dark energy and test SKA imaging and signal processing systems. The Network partners will collaborate to develop low-cost technologies for ultra-wideband antennas, high-speed signal processing, software radios, mitigation of man-made interference and the handling of petabyte data sets. The aim is a leading role for Australian researchers and industry in the \$2 billion SKA.

Project Title	Project Id	Network Convenor	Allocation in 2003
Earth and Ocean Informatics and Technology Network (EON-ITnet)	SR0354575	Dr RD Muller	\$30,000

Project Abstract

Sustainable resource exploration and mining onshore, as well as marine planning, exploration, and defence depend on effective cross-disciplinary investigation, sharing of expertise and technologies for integration and computational analysis of multidimensional data spaces. EON-ITNET will cross-fertilise the use of artificial intelligence, advanced computing and smart information sharing for management, analysis, visualisation and metadata modelling between these traditionally separate research groups, with the outcome of improving research efficiency and lowering costs. EON-ITNET will form an alliance with the Caltech-based GeoFramework, which is advancing a novel object-oriented data analysis environment, binding community software for Earth visualisation and simulation to 4D data bases.

Project Title	Project Id	Network Convenor	Allocation in 2003
Biodevice fabrication through intelligent surface modification	SR0354583	Prof MM Bilek	\$10,000

Project Abstract

Achieving the reliable control of the attachment of proteins and other macromolecules to surfaces needed for sophisticated biosensors and medical diagnostics requires expertise and infrastructure from a diverse range of disciplines from the physical, chemical and biological sciences and engineering. This network will bring together researchers from a multidisciplinary pool working on problems relevant to the creation of functional surfaces for applications in biodevices. The program we envisage will break down the barriers imposed by disciplinary boundaries and technical terminology to bring together the skills and infrastructure required to make rapid advances in this field.

Project Title	Project Id	Network Convenor	Allocation in 2003
ARC Research Network in Multimedia Technology and Applications (MTA)	SR0354584	Prof D Feng	\$10,000

Project Abstract

Multimedia Information Technology is becoming a major stream for modern computers, networks, and new platforms (e.g. embedded-systems, mobile-phones, PDAs, digital-TV) in various applications, including media production and e-healthcare where Australia has tremendous strengths. This proposal aims to bring top researchers in the related areas, including IT, Healthcare, Architecture and Visual-arts, to push a new technological wave in Australia, to provide its value promised to Australian business, and to take international leadership in multimedia computing. Its outcome includes the formation of research teams, coordinated by a board, for 10 programs, and a CSCW-system & related website to facilitate the group work.

Project Title	Project Id	Network Convenor	Allocation in 2003
Mathematical Biosciences Network	SR0354592	Prof N Joshi	\$20,000

Project Abstract

The network's aim is to stimulate the transfer of ideas, scientific insights, models and computational methods across the interface of mathematics and biology. Collaborative effort and training will occur to push forward the frontiers of biology and mathematics related to the fundamental problems of life, including how embryos develop, how diseases can be controlled, and how to describe and predict intra- and inter-cellular processes. A major theme of the network is the transfer of information through an e-science grid allowing direct access to experimental data and model simulations.

Project Title	Project Id	Network Convenor	Allocation in 2003
Ageing Well Research Network	SR0354689	Prof H Kendig	\$30,000

Project Abstract

Ageing is one of the most significant changes facing Australia. It is essential that Australia plans to achieve the opportunities as well as meet the challenges of ageing. The ARC Ageing Well Research Network will concentrate on the National Research Priority area 'Ageing Well, Ageing Productively'. It will generate innovative, multi-disciplinary approaches necessary to understand ageing people, relations between age groups, and the economic, social, and policy contexts that shape ageing experiences. It will bring together researchers and end-point users including governments, consumers, employers, and service providers informing research agendas as well as translating and applying findings to national goals.

Project Title	Project Id	Network Convenor	Allocation in 2003
A Grid Enabled Network for the Molecular and Materials Structure Sciences	SR0354691	Dr CJ Kepert	\$30,000

Project Abstract

The Molecular and Materials Structure Network will propel leading-edge Science by building powerful e-Science resources that will compel innovative collaborations of profound National benefit. Remote access will be developed for structure determination instruments, including the Research Reactor and Australian Synchrotron. A structure database with cross disciplinary content and powerful visualisation and analysis capabilities will exemplify "smart information use". Encompassing physics, computer science, chemistry and biochemistry, and catalysing interaction across these disciplines, the MMSN will impact all four National Research Priority 3 goals, and will be linked to other national and international Grids to become part of the emerging global Grid.

Project Title	Project Id	Network Convenor	Allocation in 2003
Robotics Research Network (RRN)	SR0354703	Dr SJ Scheduling	\$20,000

Project Abstract

The RRN brings together all the best robotics research groups in Australia with the aim of fostering and coordinating cooperative research. The RRN integrates researchers from fields including machine perception, sensing, control, artificial intelligence and mechatronics. The RRN includes representation from twelve Universities, CSIRO and involvement of four ARC Centres. Programmes are proposed to share research facilities, to support training of research personnel and promote cooperation in international research programmes. Robotics is already having a substantial impact in industries such as mining and agriculture. Robotics will, in future, offer benefits in areas such as health care, building systems, and defence.

Project Title	Project Id	Network Convenor	Allocation in 2003
Frontier and Security Technologies Microfabrication Network	SR0354721	Prof BJ Eggleton	\$10,000

Project Abstract

This Initiative will conduct a comprehensive survey of Australia's resources in micro-fabrication, a key enabling technology for two national research priority areas, and generate new collaboration opportunities that capitalise on this resource base and open it to a wider range of applications. The Initiative will focus on photonics, nano-materials and security applications, and will identify gaps in micro-fabrication capabilities required to support research in these areas. The outcomes will be a key element in a national strategic plan for these areas of national priority. The web site will demonstrate key features of the IT-based support features of a micro-fabrication network.

Project Title	Project Id	Network Convenor	Allocation in 2003
Research Network for Multi-Scale Manufacturing and Characterisation	SR0354722	Prof L Zhang	\$20,000

Project Abstract

Manufacturing has always been the cornerstone of long-term economic growth. With the recent development in micro/nano-technologies, the manufacture of devices with functional properties across multiple scales has become a central challenge. In Australia, individual research teams have had significant impact on the manufacture of single scale elements, but owing to their limited infrastructure and specialised expertise, integrated multi-scale manufacturing has been unattainable. Through collaboration and sharing of expertise and infrastructure, the proposed Research Network, composed of the major Australian teams in manufacturing and leading divisions overseas, will foster innovation in multi-scale manufacturing and characterization in Australia.

Project Title	Project Id	Network Convenor	Allocation in 2003
Network on Integrated Regulation of Biotechnology: Law, Science and Ethics - The Bioreg Network	SR0354764	Prof B Boer	\$10,000

Project Abstract

The Bioreg Network aims to coordinate the generation of innovative regulatory strategies and legally and ethically sound standards based on high-level scientific research results across disciplinary, organisational, institutional and jurisdictional boundaries in the area of biotechnology regulation. It will encourage open exchange of information and sharing of resources, development and implementation of coherent and integrated research plans among researchers working on topics of common interest. The bringing together of academic, government, private research and regulatory organisations into one Network will generate long-term interactions resulting in a wide range of research programs addressing aspects of all four National Research Priority Areas.

Project Title	Project Id	Network Convenor	Allocation in 2003
Interdisciplinary Network for Research into the Ethical, Legal and Social Aspects of Health (ELSAH)	SR0354803	Prof I Kerridge	\$10,000

Project Abstract

Australia lacks a national academic forum to consider issues involving biotechnology, health resource allocation, (bio)ethics and citizenship. This project will - establish an interdisciplinary network for research into the social, legal and ethical dimensions of healthcare, biotechnology and medical science; - co-ordinate this expertise in the national interest; - assist policy makers, researchers, technology developers and communities to make informed decisions, and - make health systems more equitable and socially acceptable. This in turn will build trust, foster informed debate, increase community input into health policy, and help us understand complex social systems and examine the values embedded in them.

Project Title	Project Id	Network Convenor	Allocation in 2003
Dependable Distributed Enterprises and Services	SR0354832	Prof AY Zomaya	\$10,000

Project Abstract

Distributed systems (clusters, grids, peer-to-peer) are the mainstay of many new applications. This has the potential of providing consumers with much more timely, accurate, and comprehensive information on which to base major decisions in financial, medical, and other areas. As with any new technology, related applications should be designed and implemented in such a way that users can depend on the application's availability and results, which is the main focus of this network. The CIs will collaborate in several ways, ranging from basic research to applications, to enable the creation and maintenance of highly dependable computer systems and networked applications.

Project Title	Project Id	Network Convenor	Allocation in 2003
The Australian e-Humanities Research Network: Leveraging Digital Scholarship in the Humanities	SR0354848	Prof MA Harris	\$20,000

Project Abstract

Australian humanities researchers, many of them world leaders, are increasingly adopting digital technologies to create scholarly resources in a range of disciplines. It is imperative to provide scale and focus for such diverse, innovative research. This initiative will conduct a stocktake of the infrastructure needs of researchers engaged in digital resource creation projects, and develop a roadmap for construction and implementation of a Network to address these needs. The Australian e-Humanities Research Network will take up the challenges and opportunities of digital technologies by addressing humanities researchers' requirements for training, networking, and best-practice information and advice.

Project Title	Project Id	Network Convenor	Allocation in 2003
Network Australia International	SR0354861	Prof LD Field	\$15,000

Project Abstract

"Network Australia International" will harness the expertise and knowledge of expatriate researchers and tap into their overseas networks. NAI will be a unique portal connecting and re-connecting Australian researchers overseas. The key objectives of the Network are to: * identify Australian researchers overseas, especially Young Investigators; * perform a capability audit on their knowledge, expertise and networks; * identify potential synergies between Australian and overseas researchers, related to National Research Priorities; * coordinate collaborative research; * provide opportunities for Australian postdoctoral fellows overseas; * communicate and enhance opportunities for permanent and recurring visits by Australian expatriates, and develop new initiatives.

University of Technology, Sydney

Project Title	Project Id	Network Convenor	Allocation in 2003
MESH: amalgamating innovative teams of cross-disciplinary collaborators for creativity in Media-arts, E-culture, Science and Humanities	SR0354753	Prof R Gibson	\$10,000

Project Abstract

MESH is a cross-disciplinary network that amalgamates a national array of sub-networks of research in digital arts, ICT and cross-cultural and policy negotiation. It boosts Australia's existing cross-disciplinary strengths in Media-arts, E-culture, Science and Humanities by encouraging existing digital sub-networks to grow together via well-brokered communications and demonstrations online and on-location. Progressively, MESH participants will discover existing harmonies whilst also inventing new languages and protocols leading to breakthroughs in cross-disciplinary collaboration and innovation. MESH encourages a paradigm shift in digital research, realising the extraordinary potential that is ready but latent across Australia's arts and sciences.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Research Council Research Network for Parasitology	SR0354888	A/Prof NC Smith	\$30,000

Project Abstract

Parasites are a major cause of death and suffering in humans and animals throughout the world. The ARC Research Network for Parasitology aims to bring together Australia's finest researchers and establish a world class environment and web of facilities that attracts and retains the most talented young investigators and places Australia in a strong position to deal with current and future parasitological threats. The Network will focus and enhance Australia's fundamental, strategic and applied parasitology research capabilities to : (1) develop new approaches to vaccination; (2) identify novel drug targets; and (3) ensure the sustainability of wildlife and ecosystem health.

Project Title	Project Id	Network Convenor	Allocation in 2003
Financial Integrity Research Network (FIRN)	SR0354895	Prof C Chiarella	\$40,000

Project Abstract

FIRN will be directed towards innovation in the integrity and efficiency of Australia's financial system. To address pressing problems and threats associated with this key component of Australia's infrastructure, FIRN will bring together a multi-disciplinary network featuring internationally renowned academics in a unique collaborative research effort which will cross conventional disciplinary boundaries including financial economics, applied statistics, actuarial science, financial mathematics, market micro-structure, accounting and information systems. FIRN will be supported by SIRCA's world-class financial research infrastructure and industry network. It will deliver a range of innovative research, educational, professional development and applied outcomes.

University of Western Sydney

Project Title	Project Id	Network Convenor	Allocation in 2003
Perception and Action in Auditory Scenes (PAAS): Neural, Behavioural, Computational and Mechanical Systems	SR0354596	Prof DK Burnham	\$20,000

Project Abstract

Auditory scenes are temporal and ephemeral yet pervasively influence human life. How humans negotiate such scenes has not been solved, a fact highlighted by attempts to build machines to respond to speech, warnings etc., in real-world situations with room reverberation, different talkers, and background noise. No one discipline can solve such problems. In this network outstanding researchers from physical, medical, human, and social sciences with interests in speech, music and audition will provide insights into how humans and machines localize, recognize, interpret and produce auditory events, and advance frontier technologies, e.g., automatic speech recognition, hearing prostheses, auditory monitoring/warning systems.

Project Title	Project Id	Network Convenor	Allocation in 2003
HEALTHY AGEING PREVENTION AND INTERVENTION (HA-PI) NETWORK: A RESEARCH NETWORK PROPOSAL ON THE BIOLOGICAL, SOCIAL AND PRIMARY CARE DYNAMICS OF AGEING	SR0354827	Prof J McCallum	\$10,000

Project Abstract

Australian ageing research is dispersed across bioscience, social science and primary care organisations. Advances in healthy, productive ageing require connection of these three vital links. Bioscience and social science groupings are engaged in generating the evidence that primary care experts need to promote healthy ageing. Primary care experts also need to act as direction finders for research on ageing so that the right questions are addressed. All these groups are relatively under-funded and poorly connected. The HA-PI Network will connect and support them to over-come barriers to the implementation of existing research and to create innovations for the future.

University of Wollongong

Project Title	Project Id	Network Convenor	Allocation in 2003
Advanced Electromaterials from Nanomaterials and Biomaterials	SR0354535	Prof GG Wallace	\$10,000

Project Abstract

The proposed initiative brings together relevant sectors of the nanomaterials, biomaterials and electrochemistry research communities. It is envisaged that the collective complementary expertise will give rise to research opportunities and insights into the emerging work of electro-bio-nano. Scientific and technological challenges that exist in this multidiscipline research space include areas as diverse as the development of more efficient nerve cell communication implants, understanding and control of biocorrosion/biofouling and the use of biomimicry to produce more efficient catalysts and artificial muscles.

Project Title	Project Id	Network Convenor	Allocation in 2003
Nature, culture and the challenges of environmental sustainability: bridging the science/humanities divide	SR0354620	A/Prof LM Head	\$10,000

Project Abstract

Australian science currently receives considerable funding for excellent research on environmental issues. There is also significant investment in Humanities and Social Science research on Australian environmental attitudes and practices, and how these change. This proposal seeks to link the largely separate research conversations of the two traditions. We will coordinate interactions between HSS scholars, often working as individuals, and establish links that bridge the Science/Humanities divide to produce better environmental research outcomes for Australia. The network will add value to existing investments, enhance the international significance of Australian research and foster the next generation of interdisciplinary scholars.

Project Title	Project Id	Network Convenor	Allocation in 2003
National Forum and Collaboration on the Investigation and Remediation of Problem Soils through Effective Ground Improvement Practices	SR0354679	Prof BN Indraratna	\$10,000

Project Abstract

The aim of this initiative is to develop a strategy for a high-quality research network on the Australian problematic soils and the appropriate remediation alternatives, including: lime treatment, use of geosynthetics, native vegetation and drainage. Another aim of this initiative is to bring together researchers and practitioners from all over Australia under a common forum in a workshop, to promote exchange of new ideas, disseminate research findings and innovative technologies, as well as to make an impact on practical issues facing the technologists today. An informative website will be created as a result of this initiative. A web-enabled report will also be produced to include peer-reviewed papers and relevant forum discussions.

Queensland

Griffith University

Project Title	Project Id	Network Convenor	Allocation in 2003
Future Generation: New Knowledge for Better Outcomes for Children and Young People	SR0354698	Prof RJ Homel	\$40,000

Project Abstract

Australia is a prosperous country, yet over recent decades many indices of the health and wellbeing of children and young people have deteriorated. Reasons for this are not well understood, and the nation is poorly equipped to devise effective, sustainable responses. Our vision is to create new ways of thinking and acting through new collaborations across disciplines, sectors and levels of government, with non-research communities of interest as full partners. The aim is to generate and apply new concepts and forms of knowledge, undergirded by comprehensive, better integrated data. Expected outcomes are enriched life chances for children and young people.

Project Title	Project Id	Network Convenor	Allocation in 2003
Families, Law and Social Policy Research Network	SR0354736	Prof JK Dewar	\$30,000

Project Abstract

The Federal Government's Family Law Pathways Advisory Group recommended that a national research agenda be developed for family law and social policy that focuses on the separation and divorce transition. For many families Commonwealth private family law and the public law of child protection and domestic violence, provides the setting in which this transition takes place. The proposed multidisciplinary network brings together researchers, policy makers and service providers in this area. Benefits include research better targeted to the needs of end-users, a stronger evidence base for complex practice, decreased fragmentation of research effort, and a base for research training.

Project Title	Project Id	Network Convenor	Allocation in 2003
EGaLnet: Networking relevant humanities (ethics, law, history) and social sciences (politics, economics, sociology) to analyse and address institutional governance issues	SR0354776	Prof CJ Sampford	\$40,000

Project Abstract

Despite western emphasis on individuals, we live our lives largely in, and through, institutions. Institutions and their governance are generally part of our most pressing problems (including those relating to national research priorities): institutions are almost invariably a key part of the solution. This project builds on two ARC centres (CAPPE, KCELJAG) established following our last SRI networking grant (Applied Ethics and Legal Theory). It will establish a globally significant interdisciplinary governance group (including the world's largest applied ethics grouping) that will be a major player in emerging networks and to contribute to governance reform in Australia and its region.

James Cook University

Project Title	Project Id	Network Convenor	Allocation in 2003
Innovative science for sustainable use of marine biodiversity goods and services	SR0354638	Prof TP Hughes	\$20,000

Project Abstract

Development of new scientific tools and technologies provide expanded opportunities for marine biological research in Australia. An urgent need is to coordinate research scientists and institutions to ensure maximum benefits and to meet Australia's obligations under UNCLOS. The primary goal of this proposed Network is to develop research programs of international significance, through the establishment of new teams of Australia's leading marine scientists, mathematical modelers and economists that transcend traditional disciplinary, institutional and geographic boundaries. Our goal is to add focus, scale and scope to an enduring program of innovative research development, leading to world leadership in marine resource management.

Queensland University of Technology

Project Title	Project Id	Network Convenor	Allocation in 2003
The Australian Research Network for Medical Devices: advanced technology solutions for patients and practitioners	SR0354734	Prof AJ Maeder	\$10,000

Project Abstract

Medical Device technologies embrace a wide range of scientific, engineering and medical knowledge, with the goal of assisting a clinical professional (doctor or nurse) deliver a service to a patient in an efficacious, cost effective manner. Development of appropriate medical devices, whether for diagnosis, treatment or prevention of disease or disability, is critical to improving health care and reducing health care costs. To be successful, a device must include all relevant disciplines in the research, development and testing phases. This network will bring together these groups, promoting knowledge sharing and cross-disciplinary investigations that illuminate current device limitations and potential solutions.

Project Title	Project Id	Network Convenor	Allocation in 2003
Molecular farming: seizing the opportunity to establish a new technology based, value adding industry in and for Australia.	SR0354766	Prof JL Dale	\$10,000

Project Abstract

Molecular farming involves the production of novel products in plants and brings together the technology to genetically modify plants to produce these products with efficient production of plant biomass. The range of potential products is very broad and includes therapeutic and industrial proteins, bioplastics, fibres, food additives, glues and dyes. The molecular farming industry is already established in North America with products on the market. Australia has an outstanding opportunity to participate in this new industry as a producer if we can aggregate the critical scientific mass and work together with the current fledgling industry and State and Federal regulators.

Project Title	Project Id	Network Convenor	Allocation in 2003
Building trust in Australia s infrastructure: dealing with scientific, technological, business, policy and legal issues in information security.	SR0354880	Prof EP Dawson	\$10,000

Project Abstract

Australia is faced with the challenge of engendering trust in, and protecting, the information systems vital to the economic and social development of the nation. This initiative will produce a national direction for research, development and educational activities in information security with particular emphasis on the protection of the national interest. It will do so by bringing together for the first time, academic, government and business people from a vast array of backgrounds, and whose interests lie across a spectrum of commercial, legal, policy and research outcomes.

The University of Queensland

Project Title	Project Id	Network Convenor	Allocation in 2003
New Frontiers in Structural Health Monitoring	SR0354467	Dr M Veidt	\$20,000

Project Abstract

In-situ Structural Health Monitoring (SHM) is part of a current revolution in smart-structures technologies promising quantum gains in performance, endurance and cost-efficient maintenance for high-value assets. The aim of the proposed network is to provide a platform for collaborative, multidisciplinary research, research training and innovation by integrating currently disparate programs in SHM, since the high investment costs for the development of next generation smart technologies make a collaborative approach an absolute necessity. Its significance includes the efficient generation of world-class research outcomes in the key technologies enabling this revolution, viz. (i) sensor technologies; (ii) multifunctional materials; and (iii) intelligent systems, and the timely dissemination of these outcomes to Australian industry.

Project Title	Project Id	Network Convenor	Allocation in 2003
ARC Research Network in Microarray Technology	SR0354500	Dr SM Grimmond	\$10,000

Project Abstract

The primary aim of this proposal is to transform the premier genomic technology into a standard research tool; microarrays are now a priority for anyone studying the genetics underlying key biological processes. A principal challenge for the Australian research community is to capture all aspects of microarray technology and make them readily available. We will address these needs by developing a network to: -establish regular research meetings, -facilitate training in array methodologies and bioinformatics, -co-ordinate innovation of technologies,-provide centralised data warehousing, - provide access to automated high-level gene annotation, -provide data mining tools, -set standards for data management and exchange.

Project Title	Project Id	Network Convenor	Allocation in 2003
Spatially Integrated Social Science Research in Australia	SR0354576	Dr SW Baum	\$30,000

Project Abstract

Rapid change across society has resulted in shifts to the scope of social science research including the emergence of space and place as an important concept. Across research fields the result has been that a range of innovative and unique techniques, methodologies and theories that are space based are now being developed. While research is progressing rapidly, it is undertaken in parallel by researchers who can not always collaborate. Recognising these advances, this initiative focuses on harnessing Australia's capacity and potential in the use of spatially based methods and theories and brings researchers together in collaboration across a number of fields.

Project Title	Project Id	Network Convenor	Allocation in 2003
ARC Network in Imaging Science and Technology	SR0354604	Dr AP Bradley	\$10,000

Project Abstract

The ARC Network in Imaging Science and Technology is a field of research network covering the fundamental science and technological development of applied imaging systems. The network will encompass all aspects of the imaging sciences from image formation, through image processing and analysis, and on to image visualisation. In particular, the network will focus on a number of application areas that utilise these core technologies: medical imaging; surveillance and security; materials science and metallurgy; environmental monitoring; and consumer imaging. In this way, the network will provide an environment for creative inter-disciplinary research to the socio-economic benefit of Australia.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Computational Molecular Science Network	SR0354636	Prof SC Smith	\$30,000

Project Abstract

Computational Molecular Science (CMS) involves the use of theory and computational methods to simulate and visualise molecular systems ranging from small atmospheric species to proteins, nucleic acids, chemical polymers and materials. It represents our most incisive expression of what we understand about the molecular basis of nature. The CMS network will integrate and cross-fertilize both fundamental and application-based expertise in molecular scale computations in the fields of nanoscience, biomaterials, biotechnology, biomedical science and environmental science. It will uncover and explore critical new interdisciplinary science and create new molecular-based paradigms that will drive advances in these fields over the next decade.

Project Title	Project Id	Network Convenor	Allocation in 2003
Cultural Research Network: Cultural literacies, technologies, identities and histories	SR0354670	Prof G Turner	\$40,000

Project Abstract

The Cultural Research Network's initial disciplinary base will be in cultural, media and communications studies. From this foundation it will build collaborative links with researchers from cultural history, cultural geography, cultural anthropology and creative industries to develop the capacity for innovative research into media and cultural technologies, cultural literacies, cultural histories and identities. To facilitate interdisciplinary exchange, the network will establish virtual connections, travelling master classes, seminars and symposia. The network will circulate people as well as ideas and information, bringing established Australian researchers into direct contact with postgraduates and young researchers in these fields, and pursuing international linkages.

Project Title	Project Id	Network Convenor	Allocation in 2003
ARC Network in Mineral Processing, Extraction and Refining	SR0354672	Prof Dr J Franzidis	\$20,000

Project Abstract

The Network aims to develop long-term, collaborative research and training links between world-class researchers and research centres in mineral processing, extraction and refining. The goal is to ensure that Australia's major export industry is sustainable, environmentally acceptable and technically at the cutting edge. Networking key researchers with complementary skills and expertise will enhance research quality, encourage a holistic approach to problem solving and support researchers to tackle big challenges, beyond their usual scope, that will transform the industry. The outcomes will be greater international competitiveness, better resource utilisation, and the incubation of new research leaders, enhancing Australia's minerals R&D infrastructure.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian e-Research Grid	SR0354693	Prof BA Pailthorpe	\$10,000

Project Abstract

The e-Research Grid program will research and implement core Grid technologies on APAC and partner's deployed HPC resources, to underpin a broad range of Australian research. The computer science CIs will form collaborative links with international programs, adapting developments to local circumstances. The applications-domain CIs will leverage those into their scientific simulations and databases, using grid integrative techniques and portals. Many CIs participate in other RNs linking to their motivating applications, enhancing prospects for research and integration. They participate in the APAC Grid program, leveraging 75 HPC staff nationally. A key aim is interoperability with "real-world Grids": eg e-learning & e-health programs.

Project Title	Project Id	Network Convenor	Allocation in 2003
ARC Research Network in Enterprise Information Infrastructure (EII)	SR0354696	Prof ME Orłowska	\$30,000

Project Abstract

This research network targets investigation of Enterprise Computing and its infrastructure, with an emphasis on emerging advanced technologies and practices, for large-scale enterprises, government agencies and community groups. EII will bring together the best IT researchers, leading edge users and key IT technology providers to support consolidated, technically sound, integrated and strategically positioned research towards solutions for next generation Enterprise Computing. Web services, the Semantic Web and Service Oriented Computing are fast emerging new disciplines with far reaching impacts. EII will contribute to their growth and to their practical deployment in Australia and beyond. The establishment of EII network will dramatically add value to already supported but often fragmented research projects.

Project Title	Project Id	Network Convenor	Allocation in 2003
The Print Cultures Network: Print Culture and National Culture in a Globalised Economy	SR0354701	A/Prof DJ Carter	\$10,000

Project Abstract

This Network will bring together researchers from a range of disciplinary/professional backgrounds and specialists in the deployment of frontier technologies in information management. Building on expertise in literary history, publishing, editing and bibliographical studies the Network will establish collaborations between researchers in the emerging interdisciplinary fields of book history, print culture, publishing studies and new generation information management. Its connective thematic will be the dynamics between print culture/the print economy, national cultures and global structures of production and consumption. Its unique feature will be its generative interaction with the multi-institutional collaboration already existing in the AustLit Gateway (www.austlit.edu.au).

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Microbial Resources Research Network	SR0354702	A/Prof LI Sly	\$10,000

Project Abstract

The Australian Microbial Resources Research Network will provide integrated access to Australian collections of microorganisms and electronic access to bioinformation databases to meet national strategic needs for microbiological resources and to support the competitive development of the life sciences and biotechnology industries in Australia. The network will promote collaborative interactions and accelerate the discovery of Australian microorganisms and microbial genomic information for innovative biotechnology and create new opportunities for bioindustries. The Network will link researchers and foster the discovery and exploitation of Australian microbial resources and make these resources and associated information available for applications in research, industry and education.

Project Title	Project Id	Network Convenor	Allocation in 2003
Network on eRAM: Environmental Risk Assessment and Management	SR0354739	Prof MR Moore	\$20,000

Project Abstract

The proposed network seeks to provide an understanding of the relationship between environmental agents/factors and public health. It provides Australia's first, unified effort to understand the processes involved at a whole-of-environment level. By virtue of its operation, the network will co-ordinate and expand upon the largely scattered and matrix-specific research in this field that currently takes place. It will permit evaluation of environmental agents/factors, as they relate to public health under prevailing environmental conditions. Thus, the major outcome of the network will be effective risk assessment of the expected real-time effects of environmental agents/factors on public health.

Project Title	Project Id	Network Convenor	Allocation in 2003
Quantum Many-Body Systems Network: Breakthrough Science and Frontier Technologies	SR0354741	Prof MD Gould	\$10,000

Project Abstract

This Initiative will bring together leading researchers with complementary expertise in mathematics and the enabling sciences to form a Network fostering world leading fundamental research and innovation in quantum many-body systems. The collaborative effort between mathematicians with powerful and sophisticated new techniques and physicists and chemists with deep insight into the challenges and opportunities of the quantum realm will lead to breakthrough science of vital importance to the development of frontier technologies in Australia. This Network will also place a strong emphasis on research training, the mentoring of early career researchers and establishing collaborations with leading international research groups and networks.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Bio-Metals Research Network	SR0354751	Prof AG McEwan	\$10,000

Project Abstract

The aim of the Bio-Metals Research Network is to connect the extensive Australian expertise in the study of metal ions in relation to the Environment, Health and Frontier Technologies. The Network is inter-disciplinary and brings together over 50 group leaders in the biological, biomedical and physical sciences. A major aim of the Network will be to provide a molecular understanding of biological and environmental processes and disease states as well as providing new materials for the development of new technologies. The Network will interact in research and education with Bio-Metals groups around the world and will develop collaborative funding proposals.

Project Title	Project Id	Network Convenor	Allocation in 2003
A Neural Network: Understanding Brain Function	SR0354793	Prof PF Bartlett	\$10,000

Project Abstract

This proposal focuses on the mechanisms that regulate brain function, particularly those underpinning the changes in circuitry (plasticity) caused by altered inputs. As such, its core goal is to create an interface between researchers in the neurosciences, computational modelling, robotics and cognitive sciences in order to facilitate optimum collaborative interactions, identify key research questions and promote training opportunities across a multidisciplinary spectrum. This will drive an integrated and accelerated program of discovery and technological development, enhancing Australia's leadership in this crucial field and helping to highlight new biotechnology opportunities and capture social and economic benefits for the nation.

Project Title	Project Id	Network Convenor	Allocation in 2003
The Australian Protease Network	SR0354892	Prof DP Fairlie	\$40,000

Project Abstract

Proteases are pivotal enzymes during birth, life, ageing and death of all organisms. Proteases regulate most physiological processes by controlling protein activation, synthesis and turnover and are essential for replication and spread of viruses, bacteria and parasites that cause infectious diseases. Blockbuster drugs and diagnostics already target a few proteases. Australians have made innovative contributions individually to understanding and regulating these enzymes. However this initiative aims to network their efforts by value-adding to the current protease research through promoting national and international collaborations to improve our understanding of biology, and encourage exploitation of proteases/inhibitors/receptors for pharmaceutical and industrial applications.

Project Title	Project Id	Network Convenor	Allocation in 2003
The Insect-Plant Chemical Ecology Network (IPCEN)	SR0354908	Prof MP Zalucki	\$10,000

Project Abstract

We bring together plant molecular biology, entomology and analytical chemistry to transform three leading fields of Australian research into an advanced science with far reaching capabilities in innovative research and applied outcomes. Expertise studying the biochemical pathways that produce specific plant compounds and expertise in insect recognition and response to these chemicals will be brought together. This will lead to new research outcomes and solutions to problems in agriculture, horticulture, forestry and protection of Australia's native flora. Researchers are struggling to create these links, constrained by disciplinary boundaries and geographical isolation. Key industries and researchers already support this proposal.

University of Southern Queensland

Project Title	Project Id	Network Convenor	Allocation in 2003
Research Network for Rehabilitation of Structures Using Advanced Materials and Frontier Technologies	SR0354805	Dr T Aravinthan	\$10,000

Project Abstract

There is an urgent need to rehabilitate existing structures that are considered inadequate in strength and serviceability. Frontier strengthening technologies (such as external post-tensioning and plate bonding) using conventional and advanced materials are being currently developed in Australia by different groups, but as yet not in a coordinated manner. The aim of this network is to bring together a multi-disciplinary team with complementary strengths to provide an integrated solution for rehabilitation of structures. The core of the network focuses on design tools, linking the various technologies to provide appropriate rehabilitation and understanding of life cycle demands for major infrastructure.

South Australia

The Flinders University of South Australia

Project Title	Project Id	Network Convenor	Allocation in 2003
Improving Australia's Data Mining and Knowledge Discovery Research	SR0354744	Prof JF Roddick	\$20,000

Project Abstract

The network will bring together over 50 active researchers in data mining and knowledge discovery to enhance and better coordinate Australia's impressive research performance in these dual disciplines. Specifically, the network will (a) facilitate communication and collaboration between researchers, (b) fund or underwrite opportunities for international collaboration, (c) run a number of specialist workshops and symposia and (d) establish a national annual conference.

Project Title	Project Id	Network Convenor	Allocation in 2003
Groundwater and the Environment: Understanding the role of groundwater in the maintenance of sustainable ecosystems in Australia.	SR0354817	Dr CT Simmons	\$10,000

Project Abstract

97% of freshwater on earth is groundwater. Despite this, it is undervalued, largely unexplored and poorly understood. In Australia, groundwater plays a critical role in our salinity problem and sustains our ecosystems. It will be a critical water supply in the future, especially in times of drought when surface water is scarce. Our nation's groundwater resources require the same unresounding commitment to preservation that we now see in the Murray-Darling basin. This network develops foundations for a desperately needed National Groundwater Centre to provide research to ensure win-win outcomes for this country's water resources and the users that rely on them.

Project Title	Project Id	Network Convenor	Allocation in 2003
Live Events Research Network (LERN)	SR0354825	Prof JM Holledge	\$40,000

Project Abstract

Australia, having staged ambitious, innovative and socially significant live public events in the past decade, can credibly claim to be a world leader in this area. LERN will provide a flexible network, using smart technology to facilitate collaborative research into live events, including but not restricted to the performing arts. LERN will develop new knowledge about the social and cultural importance of live events; respond to shifts in national and international research priorities; maximise use of new technologies in its research methodologies; transfer knowledge between academic and industry-based researchers and practitioners; and encourage innovative postgraduate and trainee-performer research.

Project Title	Project Id	Network Convenor	Allocation in 2003
Sustainable Regions for a Competitive Australia	SR0354852	Dr AP Beer	\$10,000

Project Abstract

How can metropolitan, rural and remote regions balance economic and job growth, with environmental and social sustainability? This Initiative establishes a Network of researchers to work collaboratively on questions of environmental best practice, community development, regional governance, labour markets, economic development and technology transfer. The Network's vision is to find ways to use existing and future research to help make Australia's regions more competitive on world markets and more environmentally sustainable, and to help build stronger regional communities. The Network cuts across traditional discipline boundaries to find integrated solutions to the real problems confronting Australian regions.

The University of Adelaide

Project Title	Project Id	Network Convenor	Allocation in 2003
Mathematics in Contemporary Science	SR0354466	A/Prof PG Bouwknecht	\$20,000

Project Abstract

The Mathematics in Contemporary Science Research Network brings contemporary methods of non-linear analysis and differential equations, geometric reasoning and relevant algebraic and topological ideas to enrich six application areas in modern science: Complex Systems, Computer Vision, Optimal Transportation, Nanotechnology, Physics and Shortest Networks. MiCS will develop both the mathematics and the application areas in parallel. It will focus on postgraduate training through workshops, summer schools and web based resources and build long-term international collaborations with EU networks and NSERC, NSF and EPSRC institutes as well as bringing together academic and industry leaders.

Project Title	Project Id	Network Convenor	Allocation in 2003
Genes and Environment in Development	SR0354622	A/Prof RI Richards	\$20,000

Project Abstract

Interactions between the early environment and the genetic regulatory program of the early embryo have major consequences for the development of individuals. The aim of this Network is to harness the resources of leading researchers from the previously distinct disciplines of developmental biology and developmental physiology to better understand developmental regulatory networks and how environmental factors impinge on them. The formation of such a Network is unique, timely and strategic in that it will generate new insights into the mechanisms by which events in early life determine the risk of adverse outcomes in perinatal and adult life.

Project Title	Project Id	Network Convenor	Allocation in 2003
The Australian Plant Nutriomics Network	SR0354715	Dr MA Tester	\$40,000

Project Abstract

The Australian Plant Nutriomics Network will link Australian scientists investigating aspects of the plant nutriome - the summation of processes that deliver nutrients and water from soil to plants. The network will establish a coordinated approach to understanding genes, proteins and metabolites involved in element acquisition and how their functions are linked to soil conditions to maximise food quality and overcome soil environmental challenges. International articulation will ensure information exchange and enhance postgraduate and postdoctoral training by reciprocal visits and focused workshops. A major goal will be a strategy to integrate research using a complex systems approach to problems.

Project Title	Project Id	Network Convenor	Allocation in 2003
Understanding the Australian Ecosystem: integrating contemporary and historical perspectives on the evolution, ecology and management of Australia's living resources	SR0354791	Prof RS Hill	\$40,000

Project Abstract

Integration of information from multiple disciplines is vital to answering questions like What governs distribution of evolutionary lineages in Australia? How and why did distributions change in the past? How might distributions change in the future? We will develop a comprehensive network bringing together experts in geochronology, geomorphology, climatology, biogeography, palaeobiology, functional anatomy and physiology, phylogenetics, biodiversity assessment, ecosystem dynamics, and population biology and modeling. This network will provide deeper understanding of and more accurate and influential management advice for Australia's biotic resources. The public outreach program to be developed will be significant given the high profile of many participants.

University of South Australia

Project Title	Project Id	Network Convenor	Allocation in 2003
Reimagining the ecosocial sustainability of the Murray-Darling Basin	SR0354558	Prof AG Mackinnon	\$10,000

Project Abstract

Urgent work is required to prevent the ecological, social and economic collapse of the Murray-Darling Basin. Ecosocial sustainability, as a long-term goal for the Murray-Darling, requires dealing with complex patterns of settlement, production, consumption and governance. Traditional disciplines are too narrowly defined to deal with this complexity. This research network will advance Australia's interdisciplinary research on sustainability of the Murray-Darling by creatively bringing into dialogue notable groups of scholars whose work traverses the natural sciences, social sciences and the humanities. This network will integrate new interdisciplinary research with bold policy analysis and creative representations, to build informed public engagement.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Communications Research Network (ACoRN)	SR0354675	Prof L Rasmussen	\$20,000

Project Abstract

Information and Communication Technology is a key contributor to national productivity and growth. ACoRN aims to stimulate creativity, innovation and breakthrough science, leading to technological advancement in telecommunications. The focus is on development of fundamental theories for application to emerging wired and wireless communications technologies. Specific objectives include consolidation of existing linkages; facilitation of multidisciplinary research; formation of new links; stimulation of commercial activity; improved post-graduate education; and increased International prominence. Our current vision involves a range of programs including: undergraduate occupational training, postgraduate internships, national and international visiting programs, and seed funding for collaborative proposals.

Project Title	Project Id	Network Convenor	Allocation in 2003
Mathematics for Government, Industry and Community -- The *Magic* Network	SR0354727	Prof PG Howlett	\$20,000

Project Abstract

The *Magic* network will promote the use of mathematics by government, industry and community to analyse real problems and implement practical solutions. It will connect the most promising young Australian mathematicians to experienced researchers with strong research teams linked directly to the broader community. Our program will demand research excellence, emphasise a sustainable society, support outstanding young mathematicians and create opportunities for promising postgraduate students. We will offer scholarships for professional development and fund research visits and exchanges. *Magic* will provide tangible incentives for young Australian mathematicians and a new generation of researchers and research leaders.

Project Title	Project Id	Network Convenor	Allocation in 2003
ARC Research Network on Degraded Environment Assessment and Remediation	SR0354804	Prof R Naidu	\$10,000

Project Abstract

There are over 80,000 contaminated sites in Australia and >750,000,000 hectares of land impacted by soil acidity, sodicity, heavy-metals, nutrients and agricultural chemicals. The research network advances assessment, management and remediation of degraded environments (land, water, and air) through collaboration of the research programs developing sustainable solutions. The collective focus is minimising disposal and impacts of contaminated soil and wastes, and land remediation. By facilitating communication, the network enhances national and international research coordination, interaction with regulators, end-users, industry, and other stakeholders, achievement of critical mass for new initiatives, enhances research training and contributes to a critical National Priority.

Tasmania

University of Tasmania

Project Title	Project Id	Network Convenor	Allocation in 2003
Social research network for sustainable rural communities	SR0354531	Prof FM Vanclay	\$10,000

Project Abstract

The triple bottom line of social, economic and environmental imperatives forms the accepted ingredients of sustainability. While the economic and environmental dimensions have been relatively well researched, there is insufficient understanding of the socio-cultural dimensions and how these determine environmental and health outcomes. The interactions between the dimensions are also poorly understood. While there are some researchers in this field, they have tended to work in isolation. The development of a resourced interdisciplinary network to facilitate collaboration will increase the contribution and innovativeness of their collective research and contribute to understanding socio-economic determinants of dynamic regions and healthy rural communities.

Project Title	Project Id	Network Convenor	Allocation in 2003
AUSTRALIAN RESEARCH NETWORK IN ANALYTICAL SCIENCE (ARNAS)	SR0354560	Prof PR Haddad	\$10,000

Project Abstract

The initiative will provide the foundations for the establishment of an Australian Research Network in Analytical Science (ARNAS), which will bring together fundamental researchers and practitioners working in quantitative chemical analysis and related areas. ARNAS will provide national coordination of research in analytical science, coverage of the newest developments, pooling of expertise and research facilities and resources, and rapid dissemination of outcomes. ARNAS will significantly advance the national research agenda for analytical science by improving awareness of research activities and expertise, providing enhanced education and opportunities for the next generation of analytical scientists, and by stimulating new international collaborations.

Project Title	Project Id	Network Convenor	Allocation in 2003
Developing a multidisciplinary international research network focussed on maximizing the social and health benefits to Australia of human genetic technologies	SR0354765	Prof DR Chalmers	\$10,000

Project Abstract

The initiative will build upon the Centre for Law and Genetics existing informal networks, resources and infrastructure with the aim of constructing an Australian based multidisciplinary research network, with extensive functional global links. The network will be designed to facilitate and coordinate collaboration across disciplines, institutions and geographic boundaries to address the legal, ethical, social, and policy implications of human genetic technologies. It will aim to maximise the social and health benefits in the most effective, efficient and economic manner; avoiding duplication and promoting the free exchange of ideas and information, and fostering cooperative effort on a global scale.

Project Title	Project Id	Network Convenor	Allocation in 2003
Interdisciplinary Network for Aquatic Animal Health	SR0354798	Dr BF Nowak	\$10,000

Project Abstract

The value of Australian fisheries and aquaculture is increasing significantly and, whilst this has resulted in an increase in R&D spending in the area, stifled collaboration amongst isolated scientists sometimes results in slow research progress. This network will enhance research on aquatic animal health. Our main aim is to provide a stimulating environment, encourage collaboration and ensure fast flow of interdisciplinary information between researchers. We will adapt methods and technologies from medical research and other disciplines to increase our understanding of aquatic animal health and at the same time ensure that our results are applied in other disciplines.

Victoria

Australian Catholic University

Project Title	Project Id	Network Convenor	Allocation in 2003
Network for Innovation in Research and Public Policy to Promote the Health and Wellbeing of Australia's Children and Young People	SR0354489	Reader JC Bessant	\$10,000

Project Abstract

The network will build research enterprises that promote the health and well-being of children and young people through the enhancement of relevant public policy and civic institutions. It will bring together researchers from universities, government agencies, non-government organisations and peak bodies in recognition of the important research being done in and across these sectors. It will build on existing established, formal and informal relationships between researchers, as well as seek to forge new relationships. Finally, the network will produce new research agendas that address issues of pressing importance for the health and well-being of children and young people.

Deakin University

Project Title	Project Id	Network Convenor	Allocation in 2003
An Educational Research Alliance for the 21st Century: exploring the interconnected relationships between new identities, new technologies and new pedagogies	SR0354625	Dr JE McLeod	\$20,000

Project Abstract

This Initiative creates an Educational Research Alliance (ERA) between three strong research domains in order to address the problem of how best to educate current and future generations in contemporary times. These domains have previously focused independently on new identities, new technologies, and new pedagogies and each has achieved significant but localised results. Examining the interconnections and relationships between these domains is necessary to promote the kind of scholarly innovation able to facilitate the creation of truly relevant, responsive, futures-oriented educational systems. In taking up this challenge ERA adopts a cross-generational and cross-disciplinary approach to assembling an international research network.

Project Title	Project Id	Network Convenor	Allocation in 2003
Sustainable Water Reuse Network	SR0354632	Prof F Stagnitti	\$10,000

Project Abstract

Declining water quality and supply is of national concern, threatening Australia's economic, social and environmental sustainability. Water reuse is a smart option to reduce primary water consumption, but if it is to be sustainable, fundamental and applied knowledge gaps must be addressed. The proposed sustainable water reuse network enables Australian researchers to engage with end users under an integrated, multi-disciplinary framework. This will allow future research activities to address knowledge gaps and priorities, thereby contributing to a paradigm shift in how Australians use all sources of water and a reframing of our understanding of sustainable water cycles.

Project Title	Project Id	Network Convenor	Allocation in 2003
Contemporary Australian Identity, Memory and Heritage	SR0354680	Dr CD Long	\$10,000

Project Abstract

This Network brings together key researchers and practitioners interested in the nature and evolution of Australian identity, memory and heritage, including heritage and museum professionals, and scholars in environmental studies, history, geography, cultural studies, Aboriginal studies, architecture, urban policy, archaeology and materials conservation. It comes under two Commonwealth Research Priority Areas: Environmentally Sustainable Australia, and Safeguarding Australia. The Network enables broader understanding of these Priority Areas by examining cultural and historical factors, providing the basis of more far-reaching and effective solutions to current problems. The Network facilitates sharing of information and research including specific collaborative projects in these research areas.

La Trobe University

Project Title	Project Id	Network Convenor	Allocation in 2003
Network Asia: Maximizing Australia's National Capacity in Inter-Disciplinary Research on Asia	SR0354512	Prof RB Jeffrey	\$30,000

Project Abstract

Australia has an international reputation for innovative and high impact research into the states, societies, and economies of Asia. The Initiative will survey the volume, range, impact, and international status of Asian area research in Australia, identify themes with high potential for achieving significant outcomes through transnational research and research-training, and develop a strategy for maximizing national research capacity in targeted areas through a national inter-disciplinary network for Asia-area research Network Asia. Outcomes include a published report on the state of the field and a strategic plan for a viable and sustainable research network.

Monash University

Project Title	Project Id	Network Convenor	Allocation in 2003
Studies on Islam and Muslim Societies	SR0354469	Dr S Akbarzadeh	\$20,000

Project Abstract

This is a stock-taking initiative to examine the strength and limitations of Australian-based research on Islam and Muslim Societies. It will survey current research activity across social science disciplines and explore its contribution to our understanding of issues and challenges that are often attributed to Islam and Muslims. The compiled research profile will also test the degree to which current research on Islam and aspects of Muslim lives has informed the policy-making process in the 'war on terror'. This initiative brings together researchers from 11 Australian universities and will culminate in a final report, also forming the basis of a full Network application.

Project Title	Project Id	Network Convenor	Allocation in 2003
The Self and its Disorders: Humanistic, Psychiatric, and Neural Perspectives	SR0354503	Dr I Gold	\$10,000

Project Abstract

Mental disorder fragments the self, distorts its development in adolescence, and obliterates it in old age. Because no one discipline can adequately understand the self and its pathologies, this Initiative aims to bring together researchers from the humanities and the sciences of the mind to investigate what mental disorder can reveal about the nature of the self, and what humanistic approaches to the self can contribute to its scientific study. A better understanding of diminished selfhood in mental disorder will lead to improvements in social policy and thereby to social and financial benefits for the community at large.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Microbial Genomics Research Network	SR0354619	Prof B Adler	\$10,000

Project Abstract

The Australian Microbial Genomics Research Network aims to bring together Australian scientists with complementary expertise in microbial genomics within two ARC Centres, a Ramaciotti Centre and four institutions across three states. This initiative will involve the strategy and planning of the proposed Network.

Project Title	Project Id	Network Convenor	Allocation in 2003
Networking environmental science to achieve integrated management of Australian terrestrial biodiversity in an era of environmental change	SR0354789	Dr AC Taylor	\$10,000

Project Abstract

Human activities impact Australian ecosystems profoundly and compound natural complexity by superimposing environmental changes. Thus, understanding, conserving and enhancing Australian biodiversity demands interdisciplinary research and management strategies. These activities lack overarching strategic coordination, being conducted mainly by groups with focused interests. We will develop a Network uniting the skills, resources and energies of excellent and productive researchers and managers of natural resources across the relevant disciplines and organizations, and so work synergistically towards the National Research Priority of an Environmentally Sustainable Australia.

RMIT University

Project Title	Project Id	Network Convenor	Allocation in 2003
An Integrated Intelligent Bio-machines Network.	SR0354599	A/Prof SJ John	\$10,000

Project Abstract

The increasing use of computing, advanced materials, electronic control with biological or human applications has provided the need to strengthen the nexus of these discipline areas. This proposal is expected to identify the critical areas of integration that can be realistically developed into meaningful technologies and products in the short-to-medium term. The significance of this network is to enhance the science and technology required for systems and products such as bionic eyes, legs, muscles and larynxes. These products and systems characterize the essence of this network: The integration of hardware and software with wetware (Humans).

Project Title	Project Id	Network Convenor	Allocation in 2003
Sources of Insecurity: Local, National and Global	SR0354600	Prof PW James	\$10,000

Project Abstract

Globalizing violence and the War on Terror have brought with them an acute sense of insecurity. The present study is intended to map and understand sources of that insecurity, both from below and above . From below, the project analyses the cultural-political and socio-economic conditions of violence on the ground, focusing on the Asia-Pacific region. From above, it documents Western representations of recent arenas of violence. The aim of the project is to research the commonplace claim that it is reassertions of older forms of traditionalism or cultural and civilizational difference that are the well-spring of contemporary global violence, including terrorism.

The University of Melbourne

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Panel Data Users Network	SR0354461	Prof MP Wooden	\$10,000

Project Abstract

Recent years have seen increased concern about how economic, social and technological changes interact with experiences occurring within families, workplaces and communities. Understanding these forces, however, requires panel data that track agents over time. Australia has only recently begun investing heavily in such data, raising concerns about our capacity to capitalize on this investment. The aims of this network therefore include: enhancing the capacity of researchers to undertake panel data research; promoting cross-disciplinary research using panel databases; facilitating opportunities for contact between panel data researchers; and promoting the use of appropriate methods for analysing panel data. It is expected that large benefits will flow to the community, especially through improved and better informed public debate and government policy-making.

Project Title	Project Id	Network Convenor	Allocation in 2003
The Economic Design Network	SR0354472	Prof P Bardsley	\$10,000

Project Abstract

The Economic Design Network will integrate research, communication, education, and policy development in the rapidly emerging discipline of Economic Design in complex systems. Based on the core disciplines of Economic Theory and Experimental Economics, but with extensive links into other areas of economics and interdisciplinary policy, it is concerned with the design of institutions and policies when rational economic agents (individuals or firms) are embedded in complex biological, social or technological systems. Examples of such systems include the bioeconomic and biophysical systems of the Murray Darling Basin, telecommunication networks and the internet, power distribution grids and markets, health and insurance networks, and information networks (including systems of intellectual property). Economic design principles are fundamental to many current policy debates.

Project Title	Project Id	Network Convenor	Allocation in 2003
Intelligent vehicles and road infrastructure (IVRI)	SR0354488	A/Prof SK Halgamuge	\$10,000

Project Abstract

The aims of the network are to integrate the activities of researchers and practitioners in the areas of vehicles and road infrastructure and through cross-disciplinary collaboration apply intelligent control systems to deliver mobility, which is safer for all users, reduces driver stress and environmental impact with increased local manufactured content and improved cost effectiveness. It is of great significance to provide a cohesive solution to the transport problem considering all modes, environmental impacts, and economical and social considerations. This project should lead to a report identifying Australia's capability in this sector and a roadmap for a future research network integrating university and industry based research.

Project Title	Project Id	Network Convenor	Allocation in 2003
Network on Control, Dynamics and Systems (NCDS)	SR0354553	A/Prof D Nestic	\$30,000

Project Abstract

Control systems theory provides principles and methods for design of complex engineering systems that automatically maintain desired performance despite changes in their environment (e.g. autopilot in an aircraft). This field is facing many new exciting challenges at the dawn of new millenium, such as design of complex engineering systems in possibly networked, asynchronous and distributed environments. The network will play a major role in addressing these challenges by providing a national research focus, facilitating collaboration and the sharing of people and ideas. By delivering a National Graduate School, the network will enhance learning conditions for graduate students. Moreover, it will provide an important catalyst between Australian universities and industry. This initiative will be essential in assessing the present state of control research in Australia and drafting a detailed plan for the network s leading research role in the future.

Project Title	Project Id	Network Convenor	Allocation in 2003
Integrated Nanoscale Biosystems Network (INBN)	SR0354588	Prof F Caruso	\$10,000

Project Abstract

The INBN will integrate high-priority research, already identified by the ARC, in materials nanoscience and engineering with nanoscale biology. The INBN will provide the means to consolidate world-class multidisciplinary Australian research groups in existing Centres of Excellence, including several Federation Fellows, into a nanobiotechnology focus. The significant outcomes of INBN are the critical mass of outstanding researchers in the nanobiosciences, facilitation of innovative research to produce novel intellectual property and provision of pathways into collaborative research with international scientists and industry, and the training and development of the next generation scientists for this emerging discipline.

Project Title	Project Id	Network Convenor	Allocation in 2003
New Techniques using X-rays, Electrons and Quantum Optics in Physics & Chemistry and key developments for biomedicine & industry.	SR0354591	A/Prof CT Chantler	\$10,000

Project Abstract

This network will develop theoretical, experimental and computational techniques addressing key issues in physics, chemistry, biology and geosciences. Scope will be wide-ranging and inclusive. We anticipate making major developments in the design and understanding of absolute X-ray Absorption Fine Structure, X-ray, Neutron and Electron Diffraction, Electron Density Mapping, Molecular and Cluster computations and Powder Diffraction for fundamental research, biomedical and industrial applications. These breakthroughs will be invaluable for the development of Australia s major research infrastructure (the synchrotron, electron microscopes, and the research reactor). This will develop Australian expertise and collaboration at the cutting edge of a variety of interdisciplinary fields.

Project Title	Project Id	Network Convenor	Allocation in 2003
The Nanoparticle Network	SR0354658	A/Prof PC Mulvaney	\$10,000

Project Abstract

Nanoscale materials are objects with one dimension less than about 20nm in size. Such exotic materials display unique, size-dependent properties (called "quantum size effects"). These materials will form the basis for many of the technological advances of the 21st Century. "The Nanoparticle Network" is a consortium dedicated to the exploration of different nanoscale materials and the origin of quantum size effects. The Network aims to enhance the uptake of all types of nanoparticle based technologies through an integrated network of scientists and engineers in conjunction with industry partners and government research institutions.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Initiative for Malaria (AIM)	SR0354678	Dr GI McFadden	\$20,000

Project Abstract

Malaria is a major global health problem with 500 million people infected and 2-3 million deaths per year. Australia has an extraordinary capacity in malaria research publishing more papers per capita than any other country. The Australian Initiative for Malaria will weld this critical mass into a stronger and more cohesive unit better able to capitalise on new developments in malaria research and will allow us to tackle the enormous problem malaria presents to our region. We will integrate our research expertise with regional laboratories in PNG, E Timor, Solomon Is, Indonesia and Thailand.

Project Title	Project Id	Network Convenor	Allocation in 2003
Digital Endangered Cultural Materials Network: Working group on digital research methodologies for endangered ethnographic material of the Asia-Pacific Region	SR0354738	Mr NA Thieberger	\$10,000

Project Abstract

The initiative aims to develop new synergies and improved methods to record, archive and give access to endangered cultural material by bringing together practitioners in information technology, field research and regional stakeholders. Through e-publication of our workshop results, the compilation of an online resource guide and provision of working metadata model for networked digital media archives, we will promote the best existing tools and approaches for analysis of media content and develop new tools and approaches as required for practical outcomes.

Project Title	Project Id	Network Convenor	Allocation in 2003
CaGaWaLo: regulation of carbon gain and water loss by woody vegetation.	SR0354740	Prof MA Adams	\$10,000

Project Abstract

Trees and shrubs are widely perceived as central to solving problems of national and international significance. Seed funding is sought to facilitate establishment of a research network focused on their ability to sequester carbon and transmit water to the atmosphere. The proposed network is broadly based in plant physiology and ecology and contains a strong cross-section of leading international expertise in relevant sub-disciplines. By leveraging the huge pool of international expertise and focusing on a range of scales (from molecular to biosphere scales), this network will yield new ideas and

approaches that will produce outputs and outcomes of national significance.

Project Title	Project Id	Network Convenor	Allocation in 2003
Intelligent Sensors, Sensor Networks and Information Processing	SR0354767	A/Prof M Palaniswami	\$20,000

Project Abstract

Recent emergence of very large number of diverse sensors and sensor networks has the potential to impact on the quality of all areas of life. Scientific challenges in realizing this potential is significant because of the multidisciplinary nature and complexities involved. This research network builds on the best scientific talent available in the interdisciplinary areas (biology, mathematics, statistics, computing, electrical engineering and mechanical engineering) with the best overseas scientific teams to solve the underlying scientific problems to enable the Australian industry to exploit and apply this technology in areas of defense, health care and environment.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Synchrotron Sciences Network	SR0354775	Prof FP Larkins	\$10,000

Project Abstract

A synchrotron light source is a critical piece of infrastructure for a modern technological nation. In 2001, the Victorian government announced that it would contribute \$157M towards the establishment of a national synchrotron facility, becoming operational in 2007. The research performed at such a facility is exceedingly diverse, and often the underpinning technology is the only point of contact for users. A vibrant and productive facility requires a transparent interface between the scientist and the technology. This Network will set up the communication channels within the user base, and between the users and the facility development program.

Project Title	Project Id	Network Convenor	Allocation in 2003
Research Network for Engineering a Secure Australia (RNESA)	SR0354781	A/Prof PA Mendis	\$40,000

Project Abstract

The Research Network for Engineering a Secure Australia (RNESA) is a multi-disciplinary collaboration established to strengthen Australia's science and technology capacity for protecting the Nation's critical infrastructure from natural or human-caused disasters. RNESA will facilitate a knowledge sharing network for government, universities and the private sector to produce innovative engineering solutions to the emerging security problems relating to the safety of critical infrastructure. This initiative will draw together researchers across disciplines to identify a roadmap for future R&D in this area. RNESA's final outcomes will lead to multi-hazard mitigation strategies and a real-time crisis support network to enable the nation to manage potential disasters.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian e-Astronomy	SR0354794	Prof RL Webster	\$10,000

Project Abstract

Australian e-Astronomy will provide a pre-eminent example of an integrated e-Science program. The Australian e-Astronomy Research Network will build on and extend the LIEF-funded national program to participate in the International Virtual Observatory. The network includes key members of most Australian astronomy research groups, a strong group representing grid research and advanced computing partnerships and an extensive group of international experts. The network developed by

Australian e-Astronomy will service the entire Australian astronomical research community (eg theory codes, databases, software telescopes) and provide new programs for postgraduate research training.

Project Title	Project Id	Network Convenor	Allocation in 2003
Complex networked social systems	SR0354799	Prof PE Pattison	\$10,000

Project Abstract

A recurring contemporary theme across many social science disciplines is the significant role of social networks in shaping the course of interpersonal interactions and their cascading social consequences. The aim of this Initiative is to build a multi- disciplinary Research Network spanning the social and mathematical sciences that can develop a new interdisciplinary science of networks and network-based social processes. The Network s aims will be twofold: first, an interactive and accessible state-of-the-art research capacity in theory, methods and models for network processes; and, second, the capacity to apply new forms of network understanding to the design and evaluation of innovative intervention strategies for system-level community change.

Project Title	Project Id	Network Convenor	Allocation in 2003
Brain and Behaviour Network	SR0354800	Dr M Murphy	\$10,000

Project Abstract

The Brain and Behaviour Network is concerned with understanding the underlying mechanisms which determine how we behave. It encompasses many disciplines including anthropology, education, ethology, neurology, neuroscience, philosophy and psychology. The Network will bring these disciplines together to create a forum to discuss and integrate the knowledge into a framework for understanding the mechanisms of behaviour and to stimulate cross-disciplinary research. The framework of knowledge will lead to a greater understanding of how we behave and will improve knowledge in areas which have a major behavioural component, such as in human development and education, psychological well-being, psychiatric problems and ageing.

Project Title	Project Id	Network Convenor	Allocation in 2003
Development of the Foundations for a Research Network for Schooling the Knowledge Society	SR0354816	Prof PF Cuttance	\$10,000

Project Abstract

This initiative will develop the foundations for a network of researchers and practitioners by identifying and establishing directions for research required for schooling the knowledge society. The initiative will engage research leaders across a number of fields, early career researchers and trainee researchers in a collaborative strategy that harnesses the power of information and communications technologies (ICT) to make smart use of research knowledge and to make it available to innovation teams in schools as they respond to the emerging challenges. The initiative will use a leading-edge learning communities Internet platform that is itself the product of an international collaborative effort for which the Commonwealth Government has provided funding of \$1.3 million over the last 3 years. The outcome of the initiative will be the development of the foundation for a fully-fledged Research Network, identification of the key research questions and directions for the next decade, a web-based resource to support the Research Network, and an archive of relevant research for researchers, policy makers and educational practitioners to utilise in enhancing the impact of research on everyday practice and the economic productivity of the nation.

Project Title	Project Id	Network Convenor	Allocation in 2003
National network for the study of cognitive processes and treatment across the phases of Schizophrenia	SR0354823	Prof HJ Jackson	\$10,000

Project Abstract

Schizophrenia is associated with great costs to the community and individual. Controlled studies have demonstrated Cognitive Behaviour Therapy (CBT) is efficacious in treating symptoms of schizophrenia. Studies of cognitive processes have also advanced understanding of psychotic phenomena. This initiative affords the opportunity to 1) Improve treatment efficacy by developing, testing and applying theoretically-driven models of psychotic symptoms. 2) Disseminate the findings of research on CBT for psychotic disorders in clinical settings by (a) training the work-force, and (b) facilitating CBT delivery in routine practice. 3) Apply CBT in various settings with a variety of psychotic populations to test its effectiveness in routine clinical settings.

Project Title	Project Id	Network Convenor	Allocation in 2003
Transforming Knowledge Spaces: Open Technologies for Research Collaboration and Research Communication	SR0354839	Prof AF Christie	\$10,000

Project Abstract

Technology has the potential to transform the means for scholarly collaboration and communication. Our proposal will achieve this potential, by deploying open source infrastructures to create new communication platforms. The Initiative will itself use collaborative writing systems to construct and energise the Network, which will match researchers requiring these new technologies with those who have the skills to build them. The outcomes will be an increase in the efficiency of traditional research collaborations as well as new kinds of collaboration and communication, for researchers and consumers of research across a range of disciplines.

Western Australia

Curtin University of Technology

Project Title	Project Id	Network Convenor	Allocation in 2003
Australia Research Network: Integrating and Value Adding Australian Research through Production, Enhancement and Communications Capacities, across the Humanities, Social Sciences and Arts.	SR0354463	Prof RA Nile	\$10,000

Project Abstract

The proposed SRI brings together research leaders from across 22 Universities and multiple disciplines including history, politics, anthropology, international relations, law, education and studies in culture, society, media, communications, migration, gender, regionalism, heritage, and Indigenous societies. Outcomes include masterclasses and workshops aimed at training team members and mentoring graduate and postdoctoral researchers. The project involves the migration of the management of the Australian Public Intellectual Network <http://www.api-network.com> to the SRI, which will become its primary stakeholder and developer. It is justified in terms of its delivery of new technologies for the innovative advancement of research into Australia.

Project Title	Project Id	Network Convenor	Allocation in 2003
The ARC Cleaner Energy and Hydrogen Research Network	SR0354872	Prof D Zhang	\$10,000

Project Abstract

The importance of clean energy is well recognised, and it is important to recognise, leverage and exploit Australian needs in the context of world progress in the area. The first task of the initiative will be to identify and focus research in the knowledge of existing trends. The Network will bring together Australia's finest research groups to provide an Australian focus on cleaner energy and hydrogen research, participate in major international programs, and provide a framework for relevant researchers to interact. It will develop an advisory role for Government and industry on technological options for sustainable energy development.

Murdoch University

Project Title	Project Id	Network Convenor	Allocation in 2003
International Network for Genomics of the Root-Soil Interface (INGORSI)	SR0354745	Prof MG Jones	\$20,000

Project Abstract

INGORSI brings together a new group of leading Australian and International researchers with common interests in the application of bioinformatics and genomics to understanding the root-soil interface, particularly the microbiology of this interface. The Network will communicate via a novel virtual seminar room, with a research focus on molecular signals between organisms and plants of the rhizosphere that promote or prevent plant growth, and also potentially impact human health. The network will facilitate high quality basic science, with linked programs that promote its application, to produce outcomes of benefit to plant crops, human health and sustainable agriculture.

Project Title	Project Id	Network Convenor	Allocation in 2003
Research Network for Biotechnological and Environmental Applications of Microalgae (BEAM)	SR0354787	A/Prof MA Borowitzka	\$10,000

Project Abstract

The network will facilitate interdisciplinary and collaborative research into the limitations on microalgal growth leading to the development of new, commercial-scale microalgae culture systems, the production of fine chemicals, bioactive compounds and renewable fuels (hydrogen), as well as environmental applications such as monitoring the physiological state of phytoplankton in the environment, CO₂ bioremediation and algal/bacterial systems for the bioremediation of contaminated soils. This will be achieved by applying research on photosynthetic light utilisation efficiency and carbon fixation, chlorophyll fluorescence, biochemistry of secondary metabolites, molecular biology and photobioreactor design and engineering, informed by an understanding of the ecology of these algae.

The University of Western Australia

Project Title	Project Id	Network Convenor	Allocation in 2003
Network for Research Development in Medieval and Early Modern European Social and Cultural Studies	SR0354657	A/Prof AL Lynch	\$10,000

Project Abstract

Funding is sought to establish the framework for an Australian-based international research network of scholars in medieval and early modern studies (MEMS). The MEMS network will develop collaborative, cross-institutional and interdisciplinary lines of enquiry in three main areas: family, gender and social history; war, peace and conflict; Australian reception of European culture. The objectives are: a bibliometric survey of relevant Australian resources; meetings to coordinate and integrate the efforts of existing Australasian MEMS organisations, early career researchers, and isolated scholars; exchanges of postgraduates; development of a web-base to act as a virtual workshop and conference facility linking Australian and international research.

Project Title	Project Id	Network Convenor	Allocation in 2003
Australian Network on Microelectronics, Optoelectronics and Microelectromechanical Systems	SR0354735	Prof L Faraone	\$10,000

Project Abstract

The Network will encompass semiconductor microelectronics, optoelectronics, sensors and microelectromechanical systems (MEMS). Fundamental research in these areas enables the technological advances that underpin rapidly developing industries such as information and telecommunications technologies, defence, aerospace, medicine, and remote sensing. Exciting challenges exist in designing new devices that exploit unique semiconductor systems and technologies. By sharing capabilities and resources (both capital and human), the network will enable the issues associated with such novel materials and devices to be addressed in a targeted manner. The network will also guarantee the ongoing future of research in the area by actively involving early career researchers and postgraduate students.

Project Title	Project Id	Network Convenor	Allocation in 2003
Deep Earth Resource Characterisation and Extraction - An Integrated Geoscience Approach	SR0354778	Prof AV Dyskin	\$30,000

Project Abstract

Sustainability, economy and safety in resource recovery require a high level of understanding of the mechanics of geomaterials in their natural conditions and a multidisciplinary approach to the geotechnical issues involved. This initiative aims to bridge gaps between geotechnical disciplines, to combine the testing, analytical skills and experience of the research groups and to incorporate expertise and ideas from the cognate disciplines of geology and geophysics so that innovative engineering practice will develop. This approach should achieve breakthroughs in understanding the behaviour of, and the safe economic extraction from deep resources including minerals, coal, gas drainage, petroleum and geothermal energy.