

**Number of Successful Proposals for Linkage - Projects to Commence in 2010 by  
FoR Division**

<b>010000</b>	<b>Mathematical Sciences</b>	
0102	APPLIED MATHEMATICS	1
0103	NUMERICAL AND COMPUTATIONAL MATHEMATICS	1
0104	STATISTICS	1
<b>010000</b>	<b>Mathematical Sciences</b>	<b>3</b>
<b>020000</b>	<b>Physical Sciences</b>	
0201	ASTRONOMICAL AND SPACE SCIENCES	1
0205	OPTICAL PHYSICS	2
<b>020000</b>	<b>Physical Sciences</b>	<b>3</b>
<b>030000</b>	<b>Chemical Sciences</b>	
0301	ANALYTICAL CHEMISTRY	3
0303	MACROMOLECULAR AND MATERIALS CHEMISTRY	2
0304	MEDICINAL AND BIOMOLECULAR CHEMISTRY	2
0306	PHYSICAL CHEMISTRY (INCL. STRUCTURAL)	1
<b>030000</b>	<b>Chemical Sciences</b>	<b>8</b>
<b>040000</b>	<b>Earth Sciences</b>	
0401	ATMOSPHERIC SCIENCES	1
0402	GEOCHEMISTRY	1
0403	GEOLOGY	4
0406	PHYSICAL GEOGRAPHY AND ENVIRONMENTAL GEOSCIENCE	1
<b>040000</b>	<b>Earth Sciences</b>	<b>7</b>
<b>050000</b>	<b>Environmental Sciences</b>	
0501	ECOLOGICAL APPLICATIONS	2
0502	ENVIRONMENTAL SCIENCE AND MANAGEMENT	8
0503	SOIL SCIENCES	3
<b>050000</b>	<b>Environmental Sciences</b>	<b>13</b>
<b>060000</b>	<b>Biological Sciences</b>	
0601	BIOCHEMISTRY AND CELL BIOLOGY	2
0602	ECOLOGY	3
0603	EVOLUTIONARY BIOLOGY	1
0604	GENETICS	2
0607	PLANT BIOLOGY	2
<b>060000</b>	<b>Biological Sciences</b>	<b>10</b>

**Number of Successful Proposals for Linkage - Projects to Commence in 2010 by  
FoR Division**

<b>070000</b>	<b>Agricultural and Veterinary Sciences</b>	
0702	ANIMAL PRODUCTION	1
0703	CROP AND PASTURE PRODUCTION	4
0704	FISHERIES SCIENCES	1
0706	HORTICULTURAL PRODUCTION	1
0707	VETERINARY SCIENCES	1
<b>070000</b>	<b>Agricultural and Veterinary Sciences</b>	<b>8</b>
<b>080000</b>	<b>Information and Computing Sciences</b>	
0801	ARTIFICIAL INTELLIGENCE AND IMAGE PROCESSING	5
0802	COMPUTATION THEORY AND MATHEMATICS	1
0803	COMPUTER SOFTWARE	1
0805	DISTRIBUTED COMPUTING	2
0806	INFORMATION SYSTEMS	4
<b>080000</b>	<b>Information and Computing Sciences</b>	<b>13</b>
<b>090000</b>	<b>Engineering</b>	
0903	BIOMEDICAL ENGINEERING	4
0904	CHEMICAL ENGINEERING	8
0905	CIVIL ENGINEERING	4
0906	ELECTRICAL AND ELECTRONIC ENGINEERING	10
0907	ENVIRONMENTAL ENGINEERING	1
0908	FOOD SCIENCES	4
0909	GEOMATIC ENGINEERING	1
0910	MANUFACTURING ENGINEERING	2
0911	MARITIME ENGINEERING	1
0912	MATERIALS ENGINEERING	9
0913	MECHANICAL ENGINEERING	2
0914	RESOURCES ENGINEERING AND EXTRACTIVE METALLURGY	4
0915	INTERDISCIPLINARY ENGINEERING	2
<b>090000</b>	<b>Engineering</b>	<b>52</b>
<b>100000</b>	<b>Technology</b>	
1002	ENVIRONMENTAL BIOTECHNOLOGY	1
1004	MEDICAL BIOTECHNOLOGY	1
1005	COMMUNICATIONS TECHNOLOGIES	1
1007	NANOTECHNOLOGY	1
1099	OTHER TECHNOLOGY	1
<b>100000</b>	<b>Technology</b>	<b>5</b>

**Number of Successful Proposals for Linkage - Projects to Commence in 2010 by  
FoR Division**

<b>110000</b>	<b>Medical and Health Sciences</b>	
1103	CLINICAL SCIENCES	1
1107	IMMUNOLOGY	1
1109	NEUROSCIENCES	3
1113	OPTOMETRY AND OPHTHALMOLOGY	1
1114	PAEDIATRICS AND REPRODUCTIVE MEDICINE	1
1115	PHARMACOLOGY AND PHARMACEUTICAL SCIENCES	1
1117	PUBLIC HEALTH AND HEALTH SERVICES	21
<b>110000</b>	<b>Medical and Health Sciences</b>	<b>29</b>
<b>120000</b>	<b>Built Environment and Design</b>	
1201	ARCHITECTURE	2
1205	URBAN AND REGIONAL PLANNING	3
1299	OTHER BUILT ENVIRONMENT AND DESIGN	1
<b>120000</b>	<b>Built Environment and Design</b>	<b>6</b>
<b>130000</b>	<b>Education</b>	
1301	EDUCATION SYSTEMS	4
1302	CURRICULUM AND PEDAGOGY	2
1303	SPECIALIST STUDIES IN EDUCATION	3
1399	OTHER EDUCATION	1
<b>130000</b>	<b>Education</b>	<b>10</b>
<b>140000</b>	<b>Economics</b>	
1402	APPLIED ECONOMICS	4
<b>140000</b>	<b>Economics</b>	<b>4</b>
<b>150000</b>	<b>Commerce, Management, Tourism and Services</b>	
1503	BUSINESS AND MANAGEMENT	3
<b>150000</b>	<b>Commerce, Management, Tourism and Services</b>	<b>3</b>
<b>160000</b>	<b>Studies in Human Society</b>	
1601	ANTHROPOLOGY	1
1602	CRIMINOLOGY	3
1605	POLICY AND ADMINISTRATION	3
1606	POLITICAL SCIENCE	2
1607	SOCIAL WORK	1
1608	SOCIOLOGY	7
1699	OTHER STUDIES IN HUMAN SOCIETY	2
<b>160000</b>	<b>Studies in Human Society</b>	<b>19</b>

**Number of Successful Proposals for Linkage - Projects to Commence in 2010 by  
FoR Division**

<b>170000</b>	<b>Psychology and Cognitive Sciences</b>	
1701	PSYCHOLOGY	7
<b>170000</b>	<b>Psychology and Cognitive Sciences</b>	<b>7</b>
<b>180000</b>	<b>Law and Legal Studies</b>	
1801	LAW	3
<b>180000</b>	<b>Law and Legal Studies</b>	<b>3</b>
<b>190000</b>	<b>Studies in Creative Arts and Writing</b>	
1901	ART THEORY AND CRITICISM	1
1902	FILM, TELEVISION AND DIGITAL MEDIA	2
1904	PERFORMING ARTS AND CREATIVE WRITING	1
<b>190000</b>	<b>Studies in Creative Arts and Writing</b>	<b>4</b>
<b>200000</b>	<b>Language, Communication and Culture</b>	
2001	COMMUNICATION AND MEDIA STUDIES	1
2002	CULTURAL STUDIES	3
2004	LINGUISTICS	2
<b>200000</b>	<b>Language, Communication and Culture</b>	<b>6</b>
<b>210000</b>	<b>History and Archaeology</b>	
2101	ARCHAEOLOGY	1
2103	HISTORICAL STUDIES	4
<b>210000</b>	<b>History and Archaeology</b>	<b>5</b>
<b>Total Number of Grants</b>		<b>218</b>

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0102 APPLIED MATHEMATICS**

**The University of Sydney**

**LP100200245** A/Prof Holger R Dullin, Dr Peter J Sinclair, Dr Surya Singh, Dr Damien M O'Meara

**Approved Bodies in space**

**Project Title**

2010	\$27,500.00
2011	\$55,000.00
2012	\$55,000.00
2013	\$27,500.00
2014	\$.00
2015	\$.00

APAI 2

**Partner/Collaborating Organisation(s)**

NSW Institute of Sport

**Administering Organisation** The University of Sydney

**Project Summary**

By investigating how a change in shape of the human body can produce a change in spatial orientation, the project will bring a fundamental advance of knowledge in the intersection of applied mathematics, sports science and mechanical engineering. These knowledge advances will lead to a novel theory regarding the control of the aerial dynamics of athletes, specifically springboard and platform divers. When applied in collaboration with world class Australian athletes, this theory will result in innovative platform and springboard diving techniques and improved performance. The reach of new insights generated by this work extends to many other fields, including robotics, spacecraft dynamics and nano technology.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0103          NUMERICAL AND COMPUTATIONAL MATHEMATICS**

**The University of Melbourne**

**LP100200112**          Prof Doreen A Thomas, Dr Marcus N Brazil, Prof Joachim H Rubinstein

**Approved**          **Maximisation of value in underground mine access design**

**Project Title**

2010	\$32,500.00
2011	\$65,000.00
2012	\$65,000.00
2013	\$32,500.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Rand Mining N L, Tribune Resources N L

**Administering Organisation**          The University of Melbourne

**Project Summary**

This project represents a major advance in the problem of optimising the mine value associated with the access infrastructure of underground mines and providing powerful planning tools for management. The usefulness to the mining industry of the methods and algorithms the project is pioneering lies in their accuracy, flexibility and generality. Not only can they be used for benchmarking value in the design of specific mines, but they can also determine the profitability or viability of mines under the use of new technologies. This is an important project for ensuring that Australia's mining industry remains efficient and internationally competitive. Given Australia's economic dependence on mineral resources, it will also benefit the country as a whole.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0104        STATISTICS**

**Monash University**

**LP100200865**        A/Prof David L Dowe, Dr Tristan J Barnett , Mr Arun Khanna

**Approved**        **Rating and ranking sports players and teams using minimum message length**

**Project Title**

2010	\$13,334.50
2011	\$26,669.00
2012	\$26,669.00
2013	\$13,334.50
2014	\$ .00
2015	\$ .00

APAI\_IT            1

**Partner/Collaborating Organisation(s)**

Cadability Pty Ltd

**Administering Organisation**        Monash University

**Project Summary**

All sorts of games and sports could use better systems for rating and ranking teams. This is as true in sports-mad Australia as any other country. Improved and more accessible rating systems across a variety of activities should encourage the general public to take a greater interest in the mathematics, statistics, information theory and machine learning behind the systems. With Cadability as our Australia-based international industry partner, the global use of these systems will be to Australia's economic advantage. Having a more accurate rating system which is wider-reaching both in the number of sports and games and the number of participants per sport and game should also encourage greater participation from the general public.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0201          ASTRONOMICAL AND SPACE SCIENCES**

**The University of Sydney**

**LP100200742**          Prof Iver H Cairns, Prof Peter A Robinson

**Approved**          **Space weather prediction via automated data analysis systems**

**Project Title**

2010	\$50,000.00
2011	\$105,000.00
2012	\$122,500.00
2013	\$67,500.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

IPS Radio and Space Services

**Administering Organisation**          The University of Sydney

**Project Summary**

The project will build world-recognised capabilities in forecasting space weather events at Earth, in time to take protective measures, identifying and analysing solar drivers of space weather, and modelling interplanetary space. Australia's scientific standing, expertise, and infrastructure will be strengthened in space science, complex systems, and multiple fields of physics. Better predictions will increase the utility of Ionospheric Prediction Service services to customers in government, industry, and society, leading to better communications, more assured access to space services, and reduced risks of damage to critical infrastructure. The project will enhance Australia's human capital and its role in global space efforts.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0205 OPTICAL PHYSICS**

**The Australian National University**

**LP100200604** Dr Jong H Chow, Prof David E McClelland, Dr Daniel A Shaddock, Dr Malcolm B Gray, Dr Richard B Warrington, Dr Michael Collins, Dr Edward H Roberts

**Approved Project Title** **Quantum noise limited molecular spectrometry**

2010	\$75,000.00
2011	\$127,500.00
2012	\$112,500.00
2013	\$60,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

National Measurement Institute

**Administering Organisation** The Australian National University

**Project Summary**

This project will develop a new technology for chemical analysis using lasers. The research will produce more accurate instruments for analysing samples containing carbon dioxide and water. This technology has a surprisingly wide array of applications. For example, sensitive analysis of carbon dioxide will help law enforcement agencies identify the location of illicit drug manufacturing, test for performance enhancing drug use by elite athletes, and monitor greenhouse gases. The instrument for analysing water will improve water resource management in Australia. This program will result in commercial instruments that are sensitive, portable and affordable.

**The University of New South Wales**

**LP100200801** Prof Anthony D Kelleher, Dr Daniel Christ, Prof Peter H Karuso, Dr Tri G Phan, Mr Peter M Delaney, Dr Lutz Jermutus

**Approved Project Title** **In vivo molecular imaging using engineered affinity reagents and fluorescent laser scanning confocal endomicroscopy**

2010	\$47,500.00
2011	\$101,000.00
2012	\$114,500.00
2013	\$61,000.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

MedImmune Ltd, Optiscan Pty Ltd

**Administering Organisation** The University of New South Wales

**Project Summary**

The goal of this project is to develop laser scanning confocal endomicroscopy as a tool for basic scientific discovery and rapid detection of disease biomarkers. The cutting-edge instrument and associated technologies will provide scientists with unprecedented access to dynamic biological processes as they occur in real-time. In addition, it will enable the development of virtual biopsies and instant diagnosis without the need for costly and time-consuming histopathological reports. Thus, it will not only drive transformative research but also transform health care delivery. It will also be a major boost to the Australian biotechnology industry with potential for enormous economic benefits.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0301 ANALYTICAL CHEMISTRY**

**Monash University**

**LP100200206** Prof Alan M Bond, Dr Michael B Esler

**Approved Project Title** **Rapid amperometric measurement of chemical oxygen demand in polluted water based on electrochemical and photocatalytic properties of nanoparticulates**

2010	\$50,000.00
2011	\$105,000.00
2012	\$115,000.00
2013	\$60,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Aqua Diagnostic Pty Ltd

**Administering Organisation** Monash University

**Project Summary**

The project will enhance a newly developed technology for measuring aggregate organic pollution in wastewater. The conventional wet chemistry method is disadvantaged by being slow (2 hr) and requiring toxic heavy metal (mercury, chromium) and hazardous reagents. Aqua Diagnostic's method, by contrast, is rapid (5-10 minutes) and uses only safe chemical reagents. It will be further improved to facilitate unprecedented near-real-time (less than 1 minute) online pollution monitoring and greater analytical robustness. The project will directly benefit the wastewater management community, enrich Australian industry's expertise in nanotechnology applications and grow high-tech exports as this innovative technology continues to penetrate international markets.

**RMIT University**

**LP100200859** Prof Suresh K Bhargava, A/Prof Kouros Kalantar-zadeh, Dr Anthony P O'Mullane, Dr Vipul Bansal, Dr Samuel J Ippolito, Dr Steven Rosenberg, Dr Ian R Harrison

**Approved Project Title** **A highly sensitive and selective nano-engineered sensor for the online monitoring of mercury vapour emissions from harsh industrial processes**

2010	\$50,000.00
2011	\$97,500.00
2012	\$95,000.00
2013	\$47,500.00
2014	\$.00
2015	\$.00

APDI Dr Samuel J Ippolito

**Partner/Collaborating Organisation(s)**

Alcoa of Australia Ltd, BHP Billiton Worsley Alumina Pty Ltd

**Administering Organisation** RMIT University

**Project Summary**

The Australian alumina and aluminium industries contribute over \$11 billion export income annually. All refineries, except one, operate in rural areas and are the main economic drivers in these regions. In order to maintain the industry's commitment to reduce the environmental impact of its processes and remain economically sustainable, innovative technologies are required to monitor mercury emissions. The aim of this project is to develop robust sensors, for online monitoring of mercury vapours, that operate under challenging industrial environments. This project will also provide excellent training for young researchers in established international industrial research groups, thereby meeting skill shortages in the Australian resource sector.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**The University of New South Wales**

**LP100200593** Prof John J Gooding, Dr Sridhar Iyengar

**Approved Project Title** **New strategies for characterising and monitoring protein-surface interactions: application to a biosensor for diabetic's blood glucose regime effectiveness**

2010	\$57,500.00
2011	\$110,000.00
2012	\$115,000.00
2013	\$62,500.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

AgaMatrix, Inc.

**Administering Organisation** The University of New South Wales

**Project Summary**

This project aims to develop an antibody based biosensor for the detection of glycosylated haemoglobin (HbA1c) which serves as a marker of the effectiveness of a diabetic's blood glucose treatment regime. Monitoring HbA1c is important as many of the long term health effects of diabetes are a consequence of high blood glucose levels. The simple to use technology will be a general detection strategy for proteins and hence will be applicable for the detection of a wide range of diseases and biomarkers. The research will also benefit Australia by training the new generation of scientists for Australia's biomedical diagnostics industry.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0303            MACROMOLECULAR AND MATERIALS CHEMISTRY**

**Monash University**

**LP100200500**        Prof Chris J Porter, Dr Lisa M Kaminskas, Dr Benjamin J Boyd, Dr Elizabeth D Williams, Dr David J Owen

**Approved Project Title**        **Designing dendrimer-based lymphatic drug vectors as improved treatments for metastatic cancer**

2010	\$75,000.00
2011	\$140,000.00
2012	\$130,000.00
2013	\$65,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Starpharma Ltd

**Administering Organisation**        Monash University

**Project Summary**

This project builds on areas of research strength in Australia (nanotechnology and biotechnology/biomaterials) and will add considerably to the expanding Australian expertise-base in dendrimer technology (in which it is a world leader). The project will advance the fundamental science base that underpins dendrimer design and has the potential to deliver substantial benefits in improved drug delivery and therefore health outcomes for Australia. The interdisciplinary nature of this project will also result in a unique training program for the researchers involved. Such experience is in great demand in Australia where the developing biotechnology and nanotechnology industry is critically short of scientists with skills in drug delivery.

**The Flinders University of South Australia**

**LP100200624**        A/Prof Janis G Matisons, A/Prof Raman Singh, Dr Cameron M Dinnis

**Approved Project Title**        **New silane anti-corrosion coatings for steel surfaces**

2010	\$70,000.00
2011	\$150,000.00
2012	\$145,000.00
2013	\$65,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Orrcon Operations Pty Ltd

**Administering Organisation**        The Flinders University of South Australia

**Project Summary**

Steel products are a major export for Australia. Orrcon is one of Australia's largest suppliers of steel pipe and tubing. This study of how to stop steel from corroding will produce new breakthroughs in understanding silane chemistry, which is safer, cheaper and more effective in reducing rust, than what is being used today. This new science will benefit Australia's research into corrosion and help us to be more competitive in the export of steel. Our proof of concept studies on the corrosion resistance of new silanes on aerospace aluminium alloys has helped Australian products enter markets where chromium(VI) is now banned. Silicon chemistry is also little researched in Australia and this project will train four new researchers in this field.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0304 MEDICINAL AND BIOMOLECULAR CHEMISTRY**

**The University of New South Wales**

**LP100200037** A/Prof Naresh Kumar, Prof David S Black, Prof Alan J Husband

**Approved Project Title** **Synthesis of novel biologically active isoflavones**

2010	\$50,000.00
2011	\$90,000.00
2012	\$85,000.00
2013	\$45,000.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Novogen Ltd

**Administering Organisation** The University of New South Wales

**Project Summary**

Cancer and heart disease are two of the main diseases that affect our society indiscriminately and put enormous drains on our health-care resources. Therefore, discovery and development of drugs that can treat these diseases are of utmost importance. Given the established success of Novogen Ltd in the development of drugs through to human clinical trials, novel isoflavones proposed in this study may lead to the discovery of new drug leads or therapeutic agents. The project has the potential to deliver enormous commercial benefits to Australian industry and social benefits to our ageing population through provision of new, locally produced therapeutics.

**The University of Queensland**

**LP100200504** Prof Matthew A Cooper, Dr Catriona L McElnea, Dr Chang-Yi Huang

**Approved Project Title** **Next generation dengue diagnostics**

2010	\$35,000.00
2011	\$75,000.00
2012	\$77,500.00
2013	\$37,500.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Inverness Medical Innovations Australia Pty Ltd

**Administering Organisation** The University of Queensland

**Project Summary**

The 2009 dengue epidemic was widespread and the largest in North Queensland for 50 years. The outbreak was not quickly contained despite an extensive education program and a mosquito control taskforce. All four types of Dengue were detected, greatly increasing the chance of more severe complications such as Dengue haemorrhagic fever and Dengue shock syndrome. This project will improve our knowledge of Dengue proteins used in tests to diagnose the virus. The new knowledge will be used to develop an easy to use test to diagnose Dengue infection early, rapidly and accurately. Effective diagnosis of Dengue will then allow timely implementation of intervention strategies (mosquito control, public advice, isolation and care).

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0306            PHYSICAL CHEMISTRY (INCL. STRUCTURAL)**

**University of Wollongong**

**LP100200711**            Dr Attila J Mozer, Prof David L Officer, Dr Tracey M Clarke, Dr Gilles Dennler

**Approved Project Title**            **Hot exciton dissociation in donor / acceptor organic solar cells: breaking the efficiency limit of organic photovoltaics**

2010	\$54,000.00
2011	\$105,591.00
2012	\$108,182.00
2013	\$56,591.00
2014	\$.00
2015	\$.00

APDI                      Dr Tracey M Clarke

**Partner/Collaborating Organisation(s)**

Konarka Technologies Inc

**Administering Organisation**            University of Wollongong

**Project Summary**

Australia will benefit from this project in several key areas with immediate impact. The development of an innovative solar cell architecture through the use of hot exciton dissociation will deliver a potential increase in the maximum achievable power conversion efficiency. The experimental results will significantly advance fundamental knowledge of organic solar cells. This has significant economic benefits by making these solar cells more affordable and also opening up the opportunity to use new materials unconstrained by existing proprietary interests. The training of personnel will contribute towards solving the biggest challenge facing the solar industry in Australia: lack of skilled personnel in a highly specialised industry.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0401          ATMOSPHERIC SCIENCES**

**The University of New South Wales**

**LP100200690**          Dr Lisa V Alexander, Prof David J Karoly, Dr Russell Vose, Dr Francis Zwiers

**Approved Project Title**          **Transforming our research capacity in the analysis of climate extremes**

2010	\$47,500.00
2011	\$97,500.00
2012	\$100,000.00
2013	\$50,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Canadian Climate Centre, Department of Climate Change, National Oceanographic and Atmospheric Agency

**Administering Organisation**          The University of New South Wales

**Project Summary**

Given their devastating impacts, there is now a critical urgency to understand what drives extreme climate events and make timely predictions of their future risk. The analysis of comprehensive extremes datasets, comprising global observations and output of multi-model simulations, will greatly improve our ability to answer fundamental questions about the nature and variability of extreme climatic events. This project also ensures the government's continued commitment to managing the risks associated with extreme events as an urgent national priority. It represents a landmark opportunity for Australian leadership of an international collaboration between some of the world's leading climate scientists and climate data and modelling centres.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0402        GEOCHEMISTRY**

**The University of Adelaide**

**LP100200102**        Dr Frank Reith, A/Prof Joel Brugger, Prof Joseph G Shapter, Dr Claire E Lenehan, Prof Allan Pring, Dr Nigel W Radford, Mr Simon Griffiths, Dr Steven A Wakelin, Asst Prof Gregor B Grass, Prof Dr Dietrich H Nies

**Approved Project Title**        **Development of biosensors and bioindicators for gold exploration and processing in Australia**

2010	\$70,000.00
2011	\$140,000.00
2012	\$145,000.00
2013	\$75,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Barrick Gold of Australia Limited , Newmont Asia Pacific, South Australian Museum

**Administering Organisation**        The University of Adelaide

**Project Summary**

In times of increasing demand for gold and shrinking rates of discovery in Australia, biosensor and bioindicator techniques deliver significant advantages to the Australian mining industry and allow it to retain its international competitiveness. The new understanding of the biogeochemical behaviour of gold in soils and other weathered materials developed in a previous ARC Linkage Project enables the development of biosensor and bioindicator technology that will allow mineral explorers to differentiate mineralised from non-mineralised zones using specific (meta) genomic community responses. The new technology will provide cost-efficient and environmentally sustainable techniques for improving exploration success and optimising ore processing.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0403 GEOLOGY**

**The University of Adelaide**

**LP100200127** Dr David E Kelsey, Prof Martin P Hand, A/Prof Alan S Collins, Dr Fred Jourdan, Dr Robert H Smithies, Dr Christopher Kirkland

**Approved Project Title** **Constraining conditions and timing of orogeny and reworking in the west Musgrave Province**

2010	\$35,000.00
2011	\$63,000.00
2012	\$61,000.00
2013	\$33,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Geological Survey of Western Australia

**Administering Organisation** The University of Adelaide

**Project Summary**

The remote Musgrave Province is one of Australia's prime areas of mineral exploration interest, with about 30 companies holding more than 120 leases over the region. A major factor determining the economic prospectivity of a terrane is the availability of high quality geoscientific data. This project will produce pre-competitive structural, petrological, isotopic, geochemical and geophysical datasets for the west Musgrave Province that will rival or surpass that available for other regions of Australian crust. This project directly aligns with the National Research Priority goal, developing deep Earth resources, and will reduce the risk to mineral explorers and facilitate economic development within the Ngaanyatjarra Native Title Lands of Western Australia.

**The University of New South Wales**

**LP100200486** Prof Michael Archer, Dr Suzanne Hand

**Approved Project Title** **Uncovering ancient landscapes with emerging technologies: integrating complex geospatial and fossil data to explore late Cenozoic environmental change**

2010	\$35,000.00
2011	\$70,000.00
2012	\$75,000.00
2013	\$40,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

QLD Department of Environment and Resource Management, Scientific & Information Technology Consulting Pty Ltd

**Administering Organisation** The University of New South Wales

**Project Summary**

This project aims to use emerging technologies to unravel relationships between prehistoric climate changes and environmental impacts in northern Australia. Given current uncertainty about impacts of contemporary climate change on our biota, it is important to document the outcomes of past climatic changes and, in particular, the globally critical period between 15 and five million years ago that shaped modern Australian environments. Fossil-rich deposits in the Riversleigh World Heritage Area of northern Queensland span this period. Interpretation of their fine-grained record of impact and change will improve our ability to predict and hence better manage impacts of future climate change on our unique national natural heritage.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Queensland

**LP100200730** Prof Suzanne D Golding, Prof Victor Rudolph, Prof Joan S Esterle, Dr Paul Massarotto, Dr Gene W Tyson, Dr Patrick C Gilcrease

**Approved Project Title** **Coals as methane bioreactors: significance of microbial methane generation in coal seams for coal seam gas (CSG) production and carbon dioxide (CO<sub>2</sub>) geosequestration**

2010	\$65,000.00
2011	\$110,000.00
2012	\$100,000.00
2013	\$55,000.00
2014	\$.00
2015	\$.00

APAI 1

#### **Partner/Collaborating Organisation(s)**

QGC, Santos Ltd (Qld), South Dakota School of Mines and Technology

**Administering Organisation** The University of Queensland

#### **Project Summary**

Australian coal seam gas, for domestic and export use, potentially rivals coal mining in national wealth creation. This project aims to demonstrate that coal seams can function as bioreactors, using naturally present micro-organisms to generate methane. The methane could come from injection of carbon dioxide (CO<sub>2</sub>) into the coal, creating a sustainable supply of clean burning gas by converting the CO<sub>2</sub> into methane. A successful outcome will permit the reuse of wells and associated infrastructure, significantly increasing coal seam methane production and reserves, possibly several fold, as well as reducing the cost of their recovery. The project will investigate the geological, microbiological and engineering requirements to accomplish this.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Western Australia

**LP100200785** A/Prof Klaus Gessner, Prof Thompson C McCuaig, Prof Bruce E Hobbs, Prof Peter A Cawood, Dr Weronika A Gorczyk, Prof Dr James A Connolly, Prof Taras Gerya, Dr Philippa L O'Neill, Dr Daniel R Lester

**Approved Project Title** **Multiscale dynamics of ore body formation**

2010	\$95,000.00
2011	\$180,000.00
2012	\$180,000.00
2013	\$95,000.00
2014	\$.00
2015	\$.00

APAI 1

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APDI Dr Weronika A Gorczyk

#### Partner/Collaborating Organisation(s)

Geocrust Pty Ltd, Geological Survey of Western Australia, Golden Phoenix International Pty Ltd , Mineral Mapping Pty Ltd, Primary Industries and Resources South Australia (PIRSA), Silver Swan Group Ltd, Swiss Federal Institute of Technology Zurich, Vearncombe & Associates Pty Ltd, Western Mining Services (Australia) Pty Ltd

**Administering Organisation** The University of Western Australia

#### Project Summary

Future discoveries of giant ore-bodies will undoubtedly be under surface cover. Modelling of new data from South Australia and Western Australia will define targeting criteria for new major ore-bodies, thus exploiting Australia's deep earth resource potential. New understanding of controls on mineralisation decrease exploration risk. Ore-bodies, such as Olympic Dam, have made major contributions to Australia's economy over past decades and promise to add increased value over future decades. This project enhances the probability that at least one other ore-body of this type will be discovered. Such discoveries contribute directly to the wealth of Australia through export earnings and accelerate the development of regional infrastructure and new technological development.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0406            PHYSICAL GEOGRAPHY AND ENVIRONMENTAL GEOSCIENCE**

**The University of Newcastle**

**LP100200665**        Prof George A Kuczera, Dr Dmitri Kavetski, Dr Mark A Thyer, A/Prof Stewart W Franks, Dr Benny Selle, Dr Faith Githui, Dr Thabo Thayalakumaran

**Approved Project Title**        **An integrated modelling approach for efficient management of irrigated landscapes**

2010	\$32,500.00
2011	\$65,000.00
2012	\$60,000.00
2013	\$27,500.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Department of Primary Industries (Victoria)

**Administering Organisation**        The University of Newcastle

**Project Summary**

Northern Victoria's irrigators use a substantial portion of water from the Murray-Darling Basin, which is under mounting pressure to satisfy competing economic, social and environmental needs for water in the face of climate change. Up to 20 per cent of this water may be on-farm surface runoff and deep percolation, with poorly known spatial distributions. This project will provide reliable temporally and spatially distributed information on surface runoff and deep percolation for Northern Victoria irrigation regions. This will inform decisions which improve water use efficiency, agricultural productivity and environmental values through optimisation of irrigation infrastructure and by better management of groundwater resources and salinity.



**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**The University of New South Wales**

**LP100200080** Dr Daniel Ramp, Dr David I Warton, Dr Kim M Jenkins, Dr Michael B Ashcroft, Dr John R Gollan,  
Dr Patrick Driver

**Approved Project Title** **Innovative approaches to identifying regional responses of biodiversity to climate change**

2010	\$60,000.00
2011	\$110,000.00
2012	\$100,000.00
2013	\$50,000.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Central West Catchment Management Authority, NSW Department of Environment, Climate Change and Water (DECCW), The Australian Museum

**Administering Organisation** The University of New South Wales

**Project Summary**

Australia is facing a biodiversity extinction crisis that is likely to be exacerbated by climate change. Existing models of climate at regional scales require significant advancement, not only to better understand impacts on biodiversity, but also to assist with decision making and adaptation strategies. The project will produce innovative and robust climate maps that are at a scale that is relevant for regional management, enabling predictions of how management actions interact with climate change to affect climate and biodiversity. The project will innovatively identify climate refugia and quantify the effectiveness of existing processes of conservation decision making, whilst engaging the community in climate science and providing considerable scientific training.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0502 ENVIRONMENTAL SCIENCE AND MANAGEMENT**

**Griffith University**

**LP100200218** Prof Grant H McTainsh, Prof Nigel J Tapper, Mr Philip N Shinkfield

**Approved Project Title** **Finding lost dust storms: re-evaluation of the last 20 years of meteorological records to advance wind erosion mapping in Australia**

2010	\$40,000.00
2011	\$70,000.00
2012	\$30,000.00
2013	\$.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Australian Bureau of Meteorology

**Administering Organisation** Griffith University

**Project Summary**

The Dust Event Database (DEDB) at Griffith University is the only long term (1960 - present) record of wind erosion in Australia. It is used in many studies of the impact of dust on the terrestrial, atmospheric and marine environments as well as in studies of urban and regional air pollution and environmental health. Through this project, the revision of the DEDB will provide new knowledge on these impacts of wind erosion processes and will inform environmental policy through its contributions to the Caring for Our Country Program, the national State of the Environment, and the Australian Centre for Rangeland Information Systems.

**LP100200033** Dr Rodney A Stewart, Prof Sherif A Mohamed, Dr Simon A Fane, Dr Ashok Sharma

**Approved Project Title** **Smart metering founding a holistic evidence-based performance evaluation framework and demand forecasting model for diversified water supply schemes**

2010	\$45,000.00
2011	\$90,000.00
2012	\$90,000.00
2013	\$45,000.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Gold Coast Water

**Administering Organisation** Griffith University

**Project Summary**

The Australian water industry faces the challenge of catering for the potable water demand of a rapidly expanding population with reduced reliability on supply imposed by an increasingly variable climate. Diversified water supply schemes (DWSS) incorporating decentralised systems or reuse sources are touted as a means to handle the inherent weaknesses of centralised urban water supply schemes by potentially drawing 30-50 per cent less demand on their reserves. This research study will provide evidence to support the implementation of best practice DWSS based on an evidence based holistic assessment of their performance considering potable water savings, capital and operation costs, energy demand, as well as environmental and community impacts.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### Murdoch University

**LP100200014** A/Prof Susan A Moore, Prof Betty V Weiler, A/Prof David Newsome, Prof Ross H Taplin, A/Prof Edward J Hall, Mr Dino Zanon, Dr Amanda Smith

**Approved Project Title** Promoting and managing national parks into the 21st century

2010	\$35,000.00
2011	\$68,500.00
2012	\$68,500.00
2013	\$35,000.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Department of Environment and Conservation, Western Australia, Parks Forum Ltd, Parks Victoria

**Administering Organisation** Murdoch University

#### Project Summary

National parks protect two thirds of Australia's biodiversity. If society does not regard parks as important, biodiversity loss through neglect is inevitable. This project aims to improve our understanding of the place of parks in society. Methods from marketing research, assessing and shifting the 'market position' of parks and managing the quality of visitors' experiences in parks to increase visitor loyalty, will be refined and applied in two Australian states; Victoria and Western Australia. The project will build on and improve theories, methodologies and instruments for positioning and managing parks and visitors to parks in these two states and beyond, to achieve better knowledge and support for parks in 21st century society.

### Southern Cross University

**LP100200732** Prof Bradley D Eyre, Dr Isaac R Santos, Dr Dirk V Erler, Prof Ling Li, A/Prof Caroline P Slomp

**Approved Project Title** Resolving nitrogen and phosphorus transformations along subterranean estuary - sediment/water interface continuums in carbonate sands

2010	\$59,500.00
2011	\$103,000.00
2012	\$92,000.00
2013	\$48,500.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Australian Agency for International Development, Cook Islands Ministry of Infrastructure and Planning

**Administering Organisation** Southern Cross University

#### Project Summary

Humans are modifying global nitrogen (N) and phosphorus (P) cycles at an alarming rate. The release of N and P into the environment drives eutrophication, one of the greatest threats to coastal ecosystems worldwide. Globally, there is little effort being made to control increasing N and P emissions. The transport of contaminated groundwater is a major source of N and P to the coastal zone and an overlooked driver of eutrophication. Yet, research into the processes that influence N and P transformation in groundwater are scarce, they neglect carbonate sand systems and have ignored the processes in key groundwater transition zones. This project will generate new knowledge that will help us understand the role that groundwater plays in coastal eutrophication.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of New South Wales

LP100200259

Dr Rita K Henderson, Prof Andy Baker, Dr John Bridgeman

Approved

**Monitoring organic matter in drinking water systems using fluorescence spectroscopy:**

Project Title

**improved early warning, process optimisation and water quality**

2010	\$26,000.00
2011	\$51,000.00
2012	\$50,000.00
2013	\$25,000.00
2014	\$.00
2015	\$.00

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#### Partner/Collaborating Organisation(s)

Hunter Water Corporation, Melbourne Water Corporation, Queensland Bulk Water Authority, Water Quality Research Australia Ltd

**Administering Organisation**

The University of New South Wales

#### Project Summary

Climate change is contributing to elevated organic matter (OM) concentrations in drinking water supplies. If insufficiently treated, OM can lead to unacceptable concentrations of disinfection by-products, considered to be potential carcinogens, as well as taste and odour problems and bacterial re-growth in the distribution system. Currently available on-line monitoring techniques give limited information regarding the nature of OM; however, fluorescence spectroscopy has shown promise in this regard. Hence, this project aims to provide an on-line monitoring protocol utilising fluorescence to aid utilities in their provision of safe drinking water, thus addressing the National Research Priority goal water - a critical resource.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Queensland

**LP100200482** Prof Damian J Barrett, Prof Stuart R Phinn

**Approved Project Title** **Restoring ecosystem function in altered landscapes to achieve ecologically sustainable development goals**

2010	\$40,000.00
2011	\$80,000.00
2012	\$40,000.00
2013	\$.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Australian Coal Research Ltd

**Administering Organisation** The University of Queensland

#### Project Summary

Mining and agriculture contribute approximately 10 per cent of Australia's gross domestic product. Hence the sustainable development of these sectors is critical to our long term economic growth and well being. However, this growth is leading to degradation of landscape ecosystem function and loss of ecosystem services. Community reaction will curtail production in these sectors where function and services continue to be lost. This project addresses the demand for accurate scientific information, needed by industry and government, to understand ecosystem responses to change, and to develop optimal conservation interventions that take account of the costs and benefits in landscapes where the intensive mining industry intersects with extensive land uses for food and fibre production.

**LP100200276** Prof Beate I Escher, Dr Peta A Neale, Dr Wolfgang Gernjak, Dr Alice A Antony, A/Prof Gregory L Leslie, A/Prof Jorg E Drewes, Dr Cedric Robillot, Mr Yvan P Poussade

**Approved Project Title** **Fate of micropollutants in water recycling: influence of dissolved organic matter**

2010	\$41,000.00
2011	\$89,000.00
2012	\$88,091.00
2013	\$40,091.00
2014	\$.00
2015	\$.00

APDI Dr Peta A Neale

#### Partner/Collaborating Organisation(s)

Queensland Manufactured Water Authority, Veolia Water Australia, Water Quality Research Australia Ltd

**Administering Organisation** The University of Queensland

#### Project Summary

Access to safe drinking water is essential for the economic and social development of Australia. There is increasing interest in applying advanced water treatment processes, such as membrane filtration or ozonation, to treat secondary effluent to a potable standard. This project promotes improved organic pollutant removal and monitoring during advanced water treatment and will contribute to the National Research Priority goal, water - a critical resource, by providing the increased protection of receiving waters including rivers and seawater. Further, as very few studies consider the role of dissolved organic matter for organic pollutant fate in water reuse internationally, this project will help to advance Australia's position in science.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

**LP100200418** Dr Richard A Fuller, Dr Howard B Wilson, Prof Hugh P Possingham, A/Prof Bruce E Kendall

**Approved Project Title** **Understanding and reversing the rapid declines in Australia's shorebirds**

2010	\$75,000.00
2011	\$147,500.00
2012	\$130,000.00
2013	\$57,500.00
2014	\$.00
2015	\$.00

APAI 1

### **Partner/Collaborating Organisation(s)**

Birds Queensland, Department of the Environment, Water, Heritage and the Arts, Port of Brisbane Corporation, QLD Department of Environment and Resource Management

**Administering Organisation** The University of Queensland

### **Project Summary**

Migratory shorebirds are recognised under the Environment Protection and Biodiversity Conservation Act as nationally important assets, and these birds are iconic elements of many coastal landscapes, yet they are declining at an alarming rate. Due to their migratory nature, part of the reason for their decline might lay in Australia, but part might lay elsewhere across the 23 countries in the migratory flyway. This project will discover what Australia can do within its territory to reverse shorebird declines, and how international agreements and policy positions could be strengthened to achieve shorebird conservation in the East Asian flyway. This research will deliver the science necessary to recover a matter of national environmental significance.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0503 SOIL SCIENCES**

**La Trobe University**

**LP100200757** Prof Caixian Tang, Prof Deli Chen, Dr Roger D Armstrong, Dr Nicole J Mathers

**Approved Project Title** **Below-ground processes: filling the missing gap in predicting the response of grain production to elevated carbon dioxide (CO2) in southern Australia**

2010	\$54,000.00
2011	\$108,000.00
2012	\$118,000.00
2013	\$64,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

VIC Department of Primary Industries

**Administering Organisation** La Trobe University

**Project Summary**

Climate change is expected to have major impacts on the Australian grains industry, which is worth \$7 billion annually. Although increases in atmospheric carbon dioxide (CO2) are expected to initially increase plant productivity, the realisation of these productivity benefits is expected to be limited by water and/or nutrient deficiencies. Given our low rainfall and infertile soils, there is considerable uncertainty about the applicability of overseas data used to model how Australian grain systems will respond to climate change (especially elevated CO2). This project will lead to better predictions of the impact of climate change on Australian grain systems so that appropriate adaptation responses can be developed by government and industry.

**The University of Sydney**

**LP100200825** Prof Mark A Adams, Dr Tina L Bell, Dr Christopher J Weston, Mr Jaymie R Norris

**Approved Project Title** **Fires, black carbon, greenhouse gas emissions and the carbon balance of southern sclerophyll forests**

2010	\$70,000.00
2011	\$135,000.00
2012	\$130,000.00
2013	\$125,000.00
2014	\$60,000.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Department of Sustainability and Environment, Victoria

**Administering Organisation** The University of Sydney

**Project Summary**

Ecologically sustainable forest management requires an understanding of the role of fire in the carbon balance of native forests, and in Australia's overall carbon balance. Fires are crucial to both this carbon balance and to the ecology of the forests. This project will help forest managers make decisions about using prescribed fire to manage fuels while at the same time managing carbon. An aim of management is to identify fire regimes that will optimise the carbon outcome as well as provide protection to life and property. This project will help managers meet that aim by developing a quantitative understanding of how much stable, black carbon (charcoal) is produced and how it affects other soil processes.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Western Australia

**LP100200584** Prof Martin V Fey, Prof Christoph B Hinz, Prof Andries B Fourie, Prof Richard W Bell, Dr Ian R Phillips

**Approved Project Title** **Anticipating closure of bauxite refineries in Western Australia: the water quality implications of a proposed new design in residue storage areas**

2010	\$47,500.00
2011	\$87,500.00
2012	\$77,500.00
2013	\$37,500.00
2014	\$.00
2015	\$.00

APAI 1

#### **Partner/Collaborating Organisation(s)**

Alcoa of Australia Ltd, Worsley Alumina Pty Ltd

**Administering Organisation** The University of Western Australia

#### **Project Summary**

Refining bauxite is a major industrial activity in Australia, with economic benefits and a high potential for environmental impact. Many bauxite refineries are sited in rural areas. Community interests are given high priority in developing strategies for long-term storage of residue. These community interests include minimal impact on farmland, water, health and natural ecosystems. Some of the refinery residue can be re-used in applications such as road construction, thus reducing the need to find other materials for this purpose. This project will investigate new residue management practices which could lead to better ways of establishing a sustainable vegetation cover and avoiding the impact of drainage water on the environment.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0601            BIOCHEMISTRY AND CELL BIOLOGY**

**The University of New South Wales**

**LP100200021**            A/Prof Katharina Gaus

**Approved Project Title**            **Life at the nanometre scale: imaging immunological synapses with a novel super-resolution fluorescence microscope**

2010	\$72,500.00
2011	\$142,500.00
2012	\$140,000.00
2013	\$70,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Carl Zeiss MicroImaging

**Administering Organisation**            The University of New South Wales

**Project Summary**

This project aims to image individual proteins in activated white blood cells in order to understand how lymphocytes participate in an immune response. The problem is that current imaging modalities either lack resolution or are unsuitable for live cell and three-dimensional (3D) imaging. With the project's industry partner, Carl Zeiss MicroImaging, the project will build and apply a novel microscope that is capable of visualising single proteins in 3D and live cells. This technology will provide insights into signalling and lymphocyte function on a true molecular scale.

**University of Technology, Sydney**

**LP100200254**            Prof Philip A Doble, Dr Dominic J Hare, A/Prof David I Finkelstein, Prof Ashley I Bush, Dr Paul A Adlard, A/Prof Robert A Cherny, Mr Rodney Minett

**Approved Project Title**            **Single cell imaging of trace elements by laser ablation - inductively coupled plasma - mass spectrometry**

2010	\$67,500.00
2011	\$126,500.00
2012	\$104,000.00
2013	\$45,000.00
2014	\$.00
2015	\$.00

APDI                      Dr Dominic J Hare

**Partner/Collaborating Organisation(s)**

Agilent Technologies, Kenelec Scientific

**Administering Organisation**            University of Technology, Sydney

**Project Summary**

The precise mechanism of how many diseases function on the cellular level is not well understood. Trace elements are important to normal cellular function and have the potential to cause significant damage if delicate levels are disturbed. This project will introduce a new, cost-effective alternative to the synchrotron for mapping of trace elements in single cells. This breakthrough science will transform a common analytical instrument into a powerful new tool for probing the cellular mechanisms of chronic illness. This frontier technology will help determine the role of trace metals in the development of neurodegenerative disease.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0602      ECOLOGY**

**The University of Melbourne**

**LP100200158**      Dr Kirsten M Parris, Dr Jane E Melville, Dr Jeremy J Austin, Dr Murray J Littlejohn

**Approved Project Title**      **The impact of severe bushfires on the ecology, demography and genetics of frogs in the Victorian Kinglake region**

2010	\$30,000.00
2011	\$65,000.00
2012	\$75,000.00
2013	\$40,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Goulburn Broken Catchment Management , Melbourne Water, Museum Victoria

**Administering Organisation**      The University of Melbourne

**Project Summary**

The February 2009 bushfires in Victoria devastated many communities, and also had a profound impact on wildlife species. This research is aimed at measuring the impact of these fires on frogs in the Kinglake region. It will provide a range of national benefits, including a better understanding of the effects of wildfire on native species and their habitats, information to help plan conservation efforts for frogs, and a vital connection with local landowners; some of whom lost their homes in the fires but were still concerned about the wellbeing of frogs in the area. Australia is a fire-prone country, and this project will help develop responses to the threats posed by the expected increase in the frequency and intensity of fires in southern Australia.

**LP100200170**      Dr Michael J Stewardson, Prof Nathan L Poff, Dr Ian D Rutherford, Dr Andrew K Sharpe

**Approved Project Title**      **How effective are environmental flows? Novel approaches for monitoring and assessing ecological responses to large-scale flow alteration**

2010	\$75,000.00
2011	\$145,000.00
2012	\$140,000.00
2013	\$70,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Department of Sustainability and Environment, Victoria., Environmental Evidence Australia Pty Ltd, Glenelg Hopkins CMA, Goulburn Broken Catchment Management , Melbourne Water Corporation, Murray-Darling Basin Authority, North Central Catchment Management Authority, Sinclair Knight Merz, West Gippsland Catchment Management Authority, Wimmera Catchment Management Authority

**Administering Organisation**      The University of Melbourne

**Project Summary**

Australia has begun a multi-billion dollar program to return water to stressed rivers as environmental flows. However, during times of unprecedented water scarcity, such an investment in the environment can be controversial because the ecological benefits of released water are mostly poorly understood. This project will demonstrate the effectiveness of environmental flows, and promote greater understanding of the links between flow patterns and river health. The project will build upon existing knowledge to create a sound framework for planning, monitoring, and evaluation of environmental watering decisions across regional Australia, greatly improving our ability to sustainably manage rivers into the future.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### University of Tasmania

**LP100200122** A/Prof Graham J Edgar, Dr Rick D Stuart-Smith, Prof David J Booth, Dr Alan R Jordan, Prof David J Ayre, A/Prof Jonathan M Waters, Dr Timothy D O'Hara, Dr Gary C Poore  
**Approved Project Title** **Biotic connectivity within the temperate Australian marine protected area network at three levels of biodiversity, communities, populations and genes**

2010	\$100,000.00
2011	\$227,500.00
2012	\$275,000.00
2013	\$240,000.00
2014	\$192,500.00
2015	\$100,000.00

APAI 1  
APDI Dr Rick D Stuart-Smith

#### Partner/Collaborating Organisation(s)

NSW Department of Environment, Climate Change and Water (DECCW), Parks and Wildlife Service, Tasmania, Parks Victoria, People and Parks Foundation , SA Department of Environment and Heritage

**Administering Organisation** University of Tasmania

#### Project Summary

Project outcomes will improve management of coastal biodiversity through a multi-state collaboration of managers, marine ecologists, population geneticists and taxonomists. Sites most needed within marine protected area (MPA) networks for maintaining resilience of populations across seascapes will be identified, including sites with exceptional endemism or key roles in dispersal of larvae. The ecological efficacy of the temperate Australian MPA network will be assessed through analysis of long-term ecological datasets and further development of a novel 'remote sensing' methodology, whereby surveys are undertaken by volunteer divers across much greater spatial and temporal scales than could be studied by dedicated scientific dive teams.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0603            EVOLUTIONARY BIOLOGY**

**The University of Adelaide**

**LP100200494**      Prof Andrew D Austin, Dr Steven J Cooper, Dr William F Humphreys, Dr Mark S Harvey, Dr Mark I Stevens

**Approved Project Title**      **Biodiversity and population genetics of groundwater calcrete ecosystems of central Western Australia**

2010	\$55,000.00
2011	\$107,500.00
2012	\$105,000.00
2013	\$52,500.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Minara Resources Limited, South Australian Museum, Western Australian Museum

**Administering Organisation**      The University of Adelaide

**Project Summary**

This project will lead to documentation of a unique subterranean ecosystem of world acclaim, representing a significant component of the biodiversity of the Australian arid zone. It will further contribute to sustainable management of groundwater ecosystems and provide information that can be used to predict and monitor how future water use and climate change may impact on these ecosystems. Results generated will provide the knowledge base required to improve the efficiency and scientific rigour of the environmental review process for major resource projects, leading to economic benefits to the mining and environmental consultancy industries, and to Australia in general.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0604 GENETICS**

**The Flinders University of South Australia**

**LP100200409** A/Prof Luciano B Beheregaray, Dr James O Harris, Mr Mark A Adams

**Approved Project Title** **Restoration genetics of five endangered fish species from the Murray-Darling Basin**

2010	\$75,000.00
2011	\$142,500.00
2012	\$127,500.00
2013	\$60,000.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Native Fish Australia (SA) Inc, Primary Industries and Resources South Australia (PIRSA), SA Department of Environment and Heritage, South Australian Murray Darling Basin Natural Resource Management Board, South Australian Museum

**Administering Organisation** The Flinders University of South Australia

**Project Summary**

Extended drought and environmental degradation have caused unprecedented loss of aquatic biodiversity in the Murray-Darling Basin (MDB), Australia's most important agricultural region. This project will reduce the risk of extinction of two endangered and three critically endangered freshwater fish species from the lower MDB. It will provide major benefits to the broader Australian community by addressing government policies regarding sustainable water management in rural areas, biodiversity protection and recovery of threatened species. The study will also increase the research profile of Australia in the international scientific community by improving our understanding about genetic diversity in captive breeding and restoration programs.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Western Australia

**LP100200429** Prof Gary A Kendrick, Dr Siegfried L Krauss, Prof Kingsley W Dixon, A/Prof Michelle Waycott

**Approved Project Title** **Establishing genetic guidelines for the effective ecological restoration of seagrass meadows**

2010	\$47,000.00
2011	\$89,000.00
2012	\$89,000.00
2013	\$47,000.00
2014	\$.00
2015	\$.00

### Partner/Collaborating Organisation(s)

Cockburn Cement Ltd, Department of Environment and Conservation, Western Australia, WA Botanic Gardens and Parks Authority

**Administering Organisation** The University of Western Australia

### Project Summary

Industry and coastal development in Australia are of national importance for economic growth and prosperity, but they threaten benthic habitats, like seagrasses. Loss of seagrass meadows without mitigation results in greater coastal impacts from damaging storms and waves and a reduction in the health and productivity of marine environments globally. Thus the ecological restoration of seagrass meadows is an urgent national priority action that involves industry, government and the community. Through the detailed assessment of population genetic variation and key population processes in seagrasses, this project will establish genetic guidelines for a more effective seagrass restoration industry.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0607 PLANT BIOLOGY**

**Murdoch University**

**LP100200808** Prof Giles E Hardy, Dr Treena I Burgess, Dr Paul A Barber, Asst Prof Pieter Poot, Dr Li Li, Dr Frank R Honey, Dr Christopher P Dunne

**Approved Project Title** **Is water deficit the predisposing factor associated with *Agonis flexuosa* (WA peppermint) decline in Western Australia?**

2010	\$35,000.00
2011	\$75,000.00
2012	\$80,000.00
2013	\$40,000.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Department of Environment and Conservation, Western Australia, SATTERLEY PROPERTY GROUP PTY LTD, SpecTerra Services Pty Ltd

**Administering Organisation** Murdoch University

**Project Summary**

The incidence and severity of tree decline across species is now widespread in southern Western Australia. There is increasing concern about their management by agencies, landowners and the community, due to the loss of aesthetics, biodiversity and ecosystem services. This project will provide remote sensing tools to monitor peppermint health and relate declines to abiotic and biotic factors. An understanding of how water abstraction for urban development and declining rainfall predispose trees to decline, and the application of thinning regimes, fungicides and nutrient implants will provide potential tools to the wider community that can be used to manage tree health.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Western Australia

**LP100200016** Prof Julie A Plummer, A/Prof Emilio L Ghisalberti, Dr Treena I Burgess, Dr Elizabeth L Barbour, Prof Joerg C Bohlmann

**Approved Project Title** **Molecular characterisation of the fungal disease defence response in tropical sandalwood (Santalum album)**

2010	\$58,500.00
2011	\$108,500.00
2012	\$100,000.00
2013	\$50,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Forest Products Commission WA, Integrated Tree Cropping Ltd

**Administering Organisation** The University of Western Australia

#### Project Summary

The tropical sandalwood industry in Australia is a highly profitable and expanding enterprise; however this cannot be taken for granted. Fungal diseases in tropical plantations are of increasing concern to growers and left unchecked could result in substantial economic loss and an unsustainable industry. This research seeks to understand the defence response of the tree in order to develop tools to combat fungal disease by rapid selection of highly resistant trees. Essential oil production is also linked to the defence response. Understanding this response as well as exploring chemical means of increasing both disease resistance and oil production will deliver a substantial economic benefit to the expanding tropical sandalwood industry.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0702 ANIMAL PRODUCTION**

**The University of Melbourne**

**LP100200224** Dr Simon R Bailey, Dr Patricia A Harris

**Approved Project Title** Relationships between insulin resistance, diet and obesity in ponies and horses

2010	\$27,034.50
2011	\$47,619.00
2012	\$40,919.00
2013	\$20,334.50
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

WALTHAM Centre for Pet Nutrition

**Administering Organisation** The University of Melbourne

**Project Summary**

There are an estimated 1.2 million horses in Australia, and the horse industry is estimated to contribute over \$6.3 billion to the economy. Laminitis is a significant health and welfare problem in Australia, as it is worldwide, causing pain and lameness, loss of use, and sometimes necessitating euthanasia. Laminitis is one of the most common reasons for horse owners to seek veterinary attention, and diet and obesity increasingly predispose to this condition. Since treatment of laminitis is difficult, prevention is crucial. The outcomes from this project will include the provision of more specific advice on dietary and exercise management to vets and horse owners to reduce the incidence and impact of laminitis on the horse industry.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0703 CROP AND PASTURE PRODUCTION**

**Monash University**

**LP100200685** Dr Jane G Muir, Prof Peter Gibson, Dr Dai A Suter, Dr Ferenc (Frank) Bekes

**Approved Project Title** **Development of novel cereal grain products for wheat and gluten intolerant Australians.**

2010	\$45,000.00
2011	\$90,000.00
2012	\$90,000.00
2013	\$45,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

George Weston Foods Ltd

**Administering Organisation** Monash University

**Project Summary**

Many Australians claim to have wheat or gluten intolerances and this has led to the growing demand for wheat and gluten free grain products. The most common problems reported by individuals relate to gut symptoms and chronic fatigue. There are a number of dietary factors in cereal products that may be responsible for triggering these symptoms including the presence of poorly absorbed carbohydrates and wheat gluten itself. This partnership between Monash University and George Weston Foods will develop novel food products that will be better tolerated by Australians reporting wheat and gluten intolerances. This will help provide the cereal industry with a competitive edge and improve the sustainability of the Australian agriculture sector.

**Murdoch University**

**LP100200267** Prof John G Howieson, Dr Kemanthi G Nandasena, A/Prof Graham W O'Hara, Prof Dr Ann M Hirsch

**Approved Project Title** **The Betaproteobacteria: could they play a key role in nitrogen fixation on infertile soils with legumes adapted to climate change?**

2010	\$25,000.00
2011	\$50,000.00
2012	\$50,000.00
2013	\$25,000.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Alosca Pty Ltd, Department of Agriculture and Food WA

**Administering Organisation** Murdoch University

**Project Summary**

Microbial biosecurity is often overlooked when introducing agricultural species to Australia. As we research new legume species to make our \$44 billion agricultural industries robust in the face of a changing climate, we need to be aware of the implications of the associated introduction of (beneficial) microbes. By exploring the globe for plants from regions that already have the climate we are transitioning towards, we have discovered new perennial forage legumes from which we can build a robust agriculture in the arid regions of southern Australia. This will have enormous national benefit in rural regions. This project will research the essential microbial inoculants associated with these new plants.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Western Australia

**LP100200085** Prof William Erskine, A/Prof Philip E Vercoe, Prof Rudi Appels, Dr Phillip G Nichols, Dr Andrew N Thompson, Dr Clinton K Revell, Mr Richard Snowball, Ms Fiona M Jones

**Approved Project Title** **Exploiting subterranean clover genetic variation for methane mitigation and ruminant health challenges to the Australian livestock industries**

2010	\$35,000.00
2011	\$70,000.00
2012	\$70,000.00
2013	\$35,000.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Department of Agriculture and Food WA

**Administering Organisation** The University of Western Australia

#### Project Summary

Subterranean clover is the most widely sown annual pasture legume species in southern Australia. It is native to the Mediterranean basin and has been sown over an estimated area of 22 million hectares. This project will provide breeders with a genomic resource for future breeding programs focused on methane emission mitigation and ruminant health. The focused marker assisted breeding will lead to more efficient and effective breeding of elite cultivars for sustainable and profitable farming systems to benefit the wool and meat industries. Low methanogenic pastures with low isoflavone content offer an exciting avenue for agriculture to reduce its carbon footprint whilst maintaining or improving profitability.

### University of Tasmania

**LP100200456** A/Prof Sergey Shabala, Prof Dr Timothy J Flowers, Mr Gabriel G Haros

**Approved Project Title** **Halophytes for high-saline agriculture: optimising performance and understanding physiology**

2010	\$42,500.00
2011	\$80,000.00
2012	\$72,500.00
2013	\$65,000.00
2014	\$30,000.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

PundaZoie Company Pty. Ltd

**Administering Organisation** University of Tasmania

#### Project Summary

The recent drought has shaved off up to 1 per cent of Australia's economic growth and resulted in losses of over \$6 billion in crop and livestock production. At the same time, very large volumes of water with impaired chemical quality are generated by industry and municipal water treatment processes. In most cases, these cannot be used directly for crop irrigation and have to be disposed of at extreme cost and waste. This project will utilise halophytes as 'alternative cash crops' to use the saline water produced by the coal seam gas operations in the Surat Basin area in Queensland. This will result in a saving of at least \$48 million over the five years of operation.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0704 FISHERIES SCIENCES**

**James Cook University**

**LP100200561** Prof Geoffrey P Jones, Dr David H Williamson, Dr Jeffrey M Leis, Prof Garry R Russ, Dr Lynne van Herwerden, Dr Glenn R Almany, Dr David R Wachenfeld, Dr Laurence J McCook

**Approved Project Title** **Do marine reserve networks work? Larval connectivity, sustainable harvesting and ecological resilience**

2010	\$62,500.00
2011	\$117,500.00
2012	\$107,500.00
2013	\$52,500.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Great Barrier Reef Marine Park Authority

**Administering Organisation** James Cook University

**Project Summary**

The Great Barrier Reef is a globally iconic marine ecosystem and benefits from the world's largest network of no-take reserves. While we know reserves contain more and bigger fish, several key questions about how reserves contribute to sustainable harvesting, protecting biodiversity and resisting climate change remain unanswered. Answers depend on a new understanding of the degree to which fish population on different reefs are connected, and whether or not reserve networks help sustain these linkages. This project will use new technologies to measure the transport of fish larvae between reefs, to assess strengths and weaknesses of the reserve network, and examine ways to improve species protection and sustainable harvesting in a changing climate.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0706 HORTICULTURAL PRODUCTION**

**The University of Western Australia**

**LP100200113** Prof Martin Barbetti, Prof Dr Krishnapillai Sivasithamparam

**Approved Project Title** **Factors responsible for host resistance to the pathogen *Sclerotinia sclerotiorum* for developing effective disease management in vegetable brassicas**

2010	\$50,000.00
2011	\$105,000.00
2012	\$130,000.00
2013	\$75,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Department of Agriculture and Food WA

**Administering Organisation** The University of Western Australia

**Project Summary**

Through successful identification of host resistance in vegetable Brassicas to *Sclerotinia sclerotiorum* and determining the factors associated with this resistance, breeders, for the first time, will be able to develop varieties with resistance against this difficult-to-manage pathogen. Benefits include prevention of severe losses in vegetable Brassicas from *Sclerotinia*, and more viable and sustainable production with less reliance upon fungicides and toxic or ineffective fumigants. This research addresses the National Research Priority, an environmentally sustainable Australia, and the priority goal transforming existing industries, and will particularly benefit Australian horticultural communities.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0707 VETERINARY SCIENCES**

**The University of Sydney**

**LP100200110** Prof Michael P Ward, Dr Brendan D Cowled, Dr Shawn W Laffan, Prof Stephen Sarre, Dr Andrew P Woolnough, Dr Michael G Garner, Dr Ian B Marsh

**Approved Project Title** **What role does wildlife play in emergency disease? The case of the feral pig**

2010	\$50,000.00
2011	\$100,000.00
2012	\$70,000.00
2013	\$20,000.00
2014	\$.00
2015	\$.00

APDI Dr Brendan D Cowled

**Partner/Collaborating Organisation(s)**

Cattle Diseases Contingency Fund Pty Ltd , Department of Agriculture and Food WA, Department of Agriculture, Fisheries and Forestry, Department of Industry and Investment NSW

**Administering Organisation** The University of Sydney

**Project Summary**

Wildlife populations have been responsible for many disease emergencies with economic and human health impacts, but our current understanding limits their management. This project focuses on the feral pig, an introduced wildlife species. It will develop an understanding of disease spread in feral pigs and from feral pigs to cattle. Using feral pig disease genetics, climate and environmental data, disease spread models will be developed. These models will be used to better manage emergency disease outbreaks in feral pigs and other wildlife species. This project will deliver practical outcomes, such as the best method of discovering disease and the most effective methods to control emergency animal diseases in wildlife and domestic animals.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0801 ARTIFICIAL INTELLIGENCE AND IMAGE PROCESSING**

**Monash University**

**LP100200405** Prof Ingrid Zukerman, A/Prof Robin A Russell, Dr Gwyn Rees, A/Prof Ecosse L Lamoureux, Dr Jan Alexandersson

**Approved Project Title** **A progressive study of user and sensor models for monitoring and assisting elderly people, focusing on the visually impaired**

2010	\$47,500.00
2011	\$90,000.00
2012	\$92,500.00
2013	\$50,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Meticube, Lda, VicHealth

**Administering Organisation** Monash University

**Project Summary**

This research will contribute to the well-being of our ageing population by extending their independence, and hence their ability to remain safely in their homes. This will benefit them, their carers and the rest of society. The synergy between user modelling, language technology and sensor networks, grounded in psychological findings, will yield high quality, novel scientific advances. The deployed prototypes will provide proof of concept of an application that improves our daily living, creating commercialisation opportunities.

**The Australian National University**

**LP100200079** Dr Peter J Christen, Dr Peter E Strazdins, Dr Ross W Gayler, Prof David A Hawking

**Approved Project Title** **Exposing the anonymous attacker: detecting identity crimes using real-time entity resolution on large dynamic databases**

2010	\$40,000.00
2011	\$80,000.00
2012	\$80,000.00
2013	\$40,000.00
2014	\$.00
2015	\$.00

APAI\_IT 1

**Partner/Collaborating Organisation(s)**

Funnelback Pty Ltd, Veda Advantage Information Services and Solutions Limited

**Administering Organisation** The Australian National University

**Project Summary**

Given the increasingly large costs of identity crimes in Australia, developing improved electronic identity verification techniques is highly significant in reducing losses from such crimes, making the Australian economy more competitive, and increasing consumer confidence in Australian financial institutions. Veda Advantage is widely used for identity verification by Australian financial service providers, so the benefits of the techniques developed in this project will automatically flow through to the Australian community. These techniques will be sufficiently generic to be of use for real-time identity verification in a broad range of applications, including e-Government portals, electronic banking, online stores, or national security systems.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Melbourne

<b>LP100200430</b>	Prof Marimuthu Palaniswami, A/Prof Ba-Ngu Vo, Dr Jayavardhana Rama Gubbi Lakshminarasimha
<b>Approved Project Title</b>	<b>Design of adaptive learning visual sensor networks for crowd modelling in high-density and occluded scenarios</b>
2010	\$42,500.00
2011	\$85,000.00
2012	\$85,000.00
2013	\$42,500.00
2014	\$.00
2015	\$.00

APDI Dr Jayavardhana Rama Gubbi Lakshminarasimha

#### Partner/Collaborating Organisation(s)

Arup Pty Ltd , Melbourne Cricket Club, SenSen networks Pty Ltd

**Administering Organisation** The University of Melbourne

#### Project Summary

Partnering University of Melbourne researchers, with video surveillance experts SenSen, engineering consultants ARUP and the Melbourne Cricket Club, the project addresses research enabling a system-integrating, existing surveillance, infrastructure to model crowd behaviour and exit strategies, providing real-time analysis, prediction and response capabilities for venue managers and emergency services. This new capability enhances utilisation of security resources to prevent injury and fatalities in evacuation scenarios, applicable to existing venues and influencing the development of new facilities around the country. The project delivers researcher training, global clientele for local technology and a platform for local industry growth.

### The University of Queensland

<b>LP100200422</b>	Prof Stuart Crozier, Dr Craig M Engstrom, A/Prof Olivier Salvado, Dr Lars O Lauer, Dr Raphael Schwarz, Dr Jurgen Fripp
<b>Approved Project Title</b>	<b>Automatic cartilage segmentation in magnetic resonance imaging</b>
2010	\$100,000.00
2011	\$185,000.00
2012	\$170,000.00
2013	\$85,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Siemens Aktiengesellschaft

**Administering Organisation** The University of Queensland

#### Project Summary

Osteoarthritis (OA) is the most common form of arthritis, affecting nearly 1.4 million Australians. This research aims at engineering new tools for use in Magnetic Resonance Imaging systems to enable automated analyses of the cartilage and bones in joint images. The goals of the work are to assist with improved diagnosis and treatment planning for both chronic disease, such as OA, and acute injuries, such as cartilage and ligament tears in sporting injuries and other traumas.

The software developed will be provided on the project's partner (Siemens) platform and will therefore be available worldwide and have a consequently large impact on the field.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### University of Technology, Sydney

**LP100200774** Prof Longbing Cao, A/Prof Xingquan Zhu, Prof Chengqi Zhang, Mr Hans M Bohlscheid, Dr Huaifeng Zhang, Mr Brett D Clark, Dr Yanchang Zhao, Mr Peter G Newbiggin

**Approved Project Title** **Detecting significant changes in organisation-customer interactions leading to non-compliance**

2010	\$50,000.00
2011	\$100,000.00
2012	\$100,000.00
2013	\$50,000.00
2014	\$.00
2015	\$.00

APAI\_IT 1

#### Partner/Collaborating Organisation(s)

Centrelink

**Administering Organisation** University of Technology, Sydney

#### Project Summary

The instant detection of risky customer and/or group dynamics and business policy and/or process changes dispersed in normal interactions can avoid immense losses and inconsistent policies for Government and industries, such as preventing Centrelink customer debt. This project will deliver novel analytical techniques and smart information use to effectively detect the above-mentioned changes leading to non-compliance. It will enhance service quality, compliance, payment accuracy and policy design for the Australian Government and industries such as Centrelink, the Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA), banking and insurance. The resulting systems, the researchers trained and resulting publications will significantly enhance Australia's leading role in tackling change-driven non-compliance.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0802 COMPUTATION THEORY AND MATHEMATICS**

**Queensland University of Technology**

**LP100200476** Prof Ian W Turner, Dr Scott W McCue, Dr James S Hanan, Dr Geoffrey N Mercer, Adj/Prof John A Belward, Dr Wilhelmina A Forster, Dr Jerzy A Zabkiewicz, Dr Joseph A Young

**Approved Project Title** **Modelling interactions of spray droplets with plants**

2010	\$80,000.00
2011	\$150,000.00
2012	\$140,000.00
2013	\$70,000.00
2014	\$.00
2015	\$.00

APAI 2

**Partner/Collaborating Organisation(s)**

Bill Gordon Consulting, Nufarm Australia Limited , Plant Protection Chemistry NZ, Syngenta Crop Protection

**Administering Organisation** Queensland University of Technology

**Project Summary**

This project addresses the National Research Priority of an environmentally sustainable Australia by developing sophisticated mathematical models and interactive software that will identify environmentally friendlier technologies to efficiently deliver agrichemicals while minimising large scale water usage. National benefits will accrue from the provision for postdoctoral, PhD and IT staff training, while direct links with industry will provide technology transfer to end-users to ensure community uptake. The project will benefit rural and regional communities by providing long-term solutions in the areas of water use and quality, pesticide pollution reduction, and improved environment and human health care.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0803          COMPUTER SOFTWARE**

**University of Wollongong**

**LP100200208**          Prof Willy Susilo, Prof Tsong Y Chen, Dr Zhiquan Zhou, Dr Fei-Ching Kuo, Prof T.H. Tse, Dr Wing K Tam

**Approved Project Title**          **Eat and Dream: effective automatic testing and debugging for real-life embedded wireless communications software**

2010	\$37,500.00
2011	\$77,500.00
2012	\$82,500.00
2013	\$42,500.00
2014	\$.00
2015	\$.00

APAI\_IT                                  1

**Partner/Collaborating Organisation(s)**

China Elite Communication Company Ltd

**Administering Organisation**          University of Wollongong

**Project Summary**

Embedded software is a key enabling technology for the majority of Australian manufacturing industries, including strategically important sectors such as the automotive industry. Embedded wireless communication technologies are playing an increasingly significant role in Australia with a wide range of critical applications ranging from natural disaster early warning to personal health monitoring. Embedded wireless communications software, however, is difficult to test and debug owing to the complexity of the operational environment and complications arising from the interplay between software and hardware. This project will develop an effective and automatic technology to alleviate these difficulties and achieve higher quality software.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0805          DISTRIBUTED COMPUTING**

**Monash University**

**LP100200417**          A/Prof Shonali Krishnaswamy, Dr Mohamed M Gaber, Dr Shivkumar Kalyanaraman, Mr Deva Seetharam, Dr Dipanjan Chakraborty

**Approved Project Title**          **Wattzup - a context-aware residential demand-response system for smart energy management**

2010	\$25,950.00
2011	\$51,900.00
2012	\$55,241.50
2013	\$29,291.50
2014	\$.00
2015	\$.00

APAI\_IT                                  1

**Partner/Collaborating Organisation(s)**

IBM India Research Lab

**Administering Organisation**          Monash University

**Project Summary**

This project falls within the National Research Priorities an environmentally sustainable australia and frontier technologies for building and transforming Australian industries. This project will develop an innovative context aware smart energy management system that will effectively reduce consumption and wastage in residential energy usage among individual homes. It will also be an important new technology that will be able to support the Australian utility industry in terms of incorporating context-sensitive demand-response strategies. The key innovation of the system will be to leverage a range of rich contextual information that is easily accessible and available for effective residential energy management.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### RMIT University

**LP100200538** A/Prof Jiankun Hu, Prof Zahir Tari, Prof Xinghuo Yu, Dr Fengling Han

**Approved Project Title** Developing smart embedded host-based intrusion detection systems

2010	\$60,000.00
2011	\$117,500.00
2012	\$122,500.00
2013	\$65,000.00
2014	\$.00
2015	\$.00

APAI\_IT 1

### Partner/Collaborating Organisation(s)

All Table Sports Australia Pty Ltd, Seculand Pty Ltd

**Administering Organisation** RMIT University

### Project Summary

Computer intrusion is a major concern in many places. It is estimated that cybercrime cost firms US\$1 trillion globally in 2008. Many serious cyber attacks, including cyber espionage, do not generate significant network traffic and can easily penetrate network-based intrusion detection systems (NIDS). Such attacks often attempt to compromise individual hosts and hence they are best detected at the host level. We aim to design innovative host-based IDS, as a complement to the NIDS, to address this issue. The outcomes of this project will strengthen the national capability to resist attacks by criminals and terrorists on Australian networked critical infrastructures and also enhance the global competitiveness of Australia's information technology industry.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0806 INFORMATION SYSTEMS**

**The University of Adelaide**

**LP100200114** Dr Michael Q Sheng, Dr Damith C Ranasinghe, Prof Peter H Cole

**Approved Project Title** **Managing uncertainty in RFID traceability networks**

2010	\$50,000.00
2011	\$100,000.00
2012	\$65,000.00
2013	\$15,000.00
2014	\$.00
2015	\$.00

APAI\_IT 1

**Partner/Collaborating Organisation(s)**

International Linen Services

**Administering Organisation** The University of Adelaide

**Project Summary**

Australia suffers 5.4 million cases of food-borne illness every year, which leads to 2.1 million days of lost work, 1.2 million people visiting a doctor, and 120 deaths annually. This has revealed the urgent need for improved ways of locating and recalling problematic products that have been released into the community. The project will develop novel techniques driven by Radio Frequency Identification (RFID) technology for improving the efficiency and accuracy of product tracking in distribution networks. This project will place Australia at the forefront of RFID research. It will also be an excellent vehicle for educating young researchers and engineers in Australia.

**The University of Sydney**

**LP100200280** Prof Dagan Feng, Dr Weidong Cai, Prof Michael J Fulham, A/Prof Stefan Eberl, Dr Lingfeng Wen

**Approved Project Title** **Integrated multi-level interpretation and its applications for intelligent multimodality biomedical image navigation, retrieval and tracking**

2010	\$75,000.00
2011	\$145,000.00
2012	\$140,000.00
2013	\$70,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Royal Prince Alfred Hospital

**Administering Organisation** The University of Sydney

**Project Summary**

The 64- and 128-slice positron emission tomography - computed tomography (PET-CT) devices at the Royal Prince Alfred Hospital were the first in the country. These scanners, with the medical cyclotron and radiochemistry facilities, represent an investment of over A\$13 million. This project will address pressing issues in optimising the utilisation of the information and systems to provide better service to patients and referring clinicians. This research will add considerable value to Australia's medical imaging infrastructure and healthcare delivery; and advance scientific research in better understanding of system biology, physiology and pathology. The research outcomes will strengthen Australia's leading position in biomedical information technology research and Australian medical imaging expertise.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### University of Southern Queensland

**LP100200227** A/Prof Aileen P Cater-Steel, Dr Wui-Gee Tan, Prof Mark A Toleman, A/Prof Terence P Rout

**Approved Project Title** **Software mediated process assessment in IT service management: development and evaluation of standards-based tools to facilitate continual improvement**

2010	\$20,000.00
2011	\$50,000.00
2012	\$50,000.00
2013	\$20,000.00
2014	\$.00
2015	\$.00

APAI\_IT 1

#### Partner/Collaborating Organisation(s)

Assessment portal Pty Ltd, CITEC, SPARQ Solutions Pty Ltd

**Administering Organisation** University of Southern Queensland

#### Project Summary

Improvements in information technology (IT) services will benefit the Australian business community as organisations today are almost totally dependent on IT to survive. The implementation of IT service management standards reduces IT downtime as well as improving IT service quality and customer satisfaction. Private and public sector organisations will benefit as the developed tool will enable self-assessment of capability in line with international standards. In addition, the project will validate and transition emerging standards into industry, placing Australia at the forefront of adoption and use. Results will be fed back to the international standards community further enhancing Australia's reputation as a leader in IT standards development.

### Victoria University

**LP100200682** Prof Yanchun Z Zhang, A/Prof Xun Yi, Dr Jing He, Dr Chaoyi Pang, A/Prof Michael Steyn

**Approved Project Title** **Real-time and self-adaptive stream data analyser for intensive care management**

2010	\$57,500.00
2011	\$115,000.00
2012	\$115,000.00
2013	\$57,500.00
2014	\$.00
2015	\$.00

APAI\_IT 1

#### Partner/Collaborating Organisation(s)

Australian e-Health Research Centre, Royal Brisbane and Women's Hospital Research Foundation (RO)

**Administering Organisation** Victoria University

#### Project Summary

The clinical benefit of this project will be in improved success rates and reduced mortality and risk in surgery and intensive care units. The Information and communication technology (ICT) benefit of this project is associated with the novel online algorithms and models aligned with the stream data research, and will be enhanced by our stream compression techniques. The stream data analyser developed in this project will be suitable for more than medical surveillance data; it will also improve the processing of other kinds of massive stream data (for example data from remote sensors, communication networks and other dynamic environments). The project involves a scientifically rich collaboration that will enhance the skills of PhD students and staff and drive the field forward.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0903 BIOMEDICAL ENGINEERING**

**Queensland University of Technology**

**LP100200084** Prof Dietmar W Hutmacher, Dr Maria A Woodruff, Dr Siamak Saifzadeh, Prof Ross W Crawford, Prof Robert E Guldberg, Prof David Mooney, Dr Simon G Pearce

**Approved Project Title** **Bone tissue engineering using innovative tubular dual-layered nanofiber meshes**

2010	\$64,500.00
2011	\$109,500.00
2012	\$87,500.00
2013	\$42,500.00
2014	\$.00
2015	\$.00

APDI Dr Maria A Woodruff

**Partner/Collaborating Organisation(s)**

Georgia Tech Research Corporation, Queensland Orthopaedic Research Trust, Surgical Research Australia Pty Ltd

**Administering Organisation** Queensland University of Technology

**Project Summary**

Lifetime risks for long-bone fractures in Caucasians over the age of 50 are 17 per cent for women and 6 per cent for men. A clear therapeutic need exists to address the ever-increasing problems of diminished productivity and reduced quality of life associated with bone disorders as the population ages. To address this challenge, the project's multidisciplinary, international team will develop technologies to heal tibial defects. Furthermore, it will establish Australia's prominence in the tissue engineering field, training the next generation of young scientists and engineers. This technology will be of interest to numerous research groups and companies worldwide and will foster international collaboration, placing Australia at the forefront of this emerging field.

**The University of Melbourne**

**LP100200184** Prof Marimuthu Palaniswami, Dr Ahsan H Khandoker, Prof Yoshitaka Kimura

**Approved Project Title** **New techniques to detect fetal heart abnormalities**

2010	\$40,000.00
2011	\$80,000.00
2012	\$80,000.00
2013	\$40,000.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Atom Medical Corporation, Royal Women's Hospital, Tohoku University

**Administering Organisation** The University of Melbourne

**Project Summary**

Australia's national fetal death rate is 6.7 per one thousand births. In Australia's Indigenous community it surges to 12.3 deaths per one thousand births. Early diagnosis (and management) of abnormal fetuses with cardiac defects will go a long way in reducing these numbers. The proposed technology will help set up easy-to-use systems for fetal cardiac abnormality screening and reduce fetal deaths and congenital heart disease burden in adult life. This project will also provide domain trained researchers with cutting edge international academic and industry expertise.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of New South Wales

**LP100200770** A/Prof Gregg J Suaning, Dr Torsten Lehmann, Prof David B Hibbert, Dr Paul M Carter, Mr Charles R Leigh, Mr Pdraig J Hurley

**Approved Project Title** **Chip-scale implantable bionics for next generation therapeutic neural prostheses**

2010	\$95,000.00
2011	\$187,500.00
2012	\$185,000.00
2013	\$92,500.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Cochlear Limited

**Administering Organisation** The University of New South Wales

#### Project Summary

Australia has an unmatched reputation as a world leader in neuroprostheses. Most notable of these is the bionic ear and, more recently, leading edge research towards a bionic eye. This project will combine the research strengths and experiences from both the hearing and visual bionics fields to address the main obstacles that prevent the number of electrical stimulation channels (equating to the number of frequencies heard by the deaf, and the number of spots of light seen by the blind) from increasing. The study will improve our understanding of the electrode-tissue interface, the life-long implantability, and electrical circuitry that will allow future bionic devices to significantly improve their performance.

### The University of Queensland

**LP100200427** Prof Stuart Crozier, A/Prof Stephen J Wilson, Dr Peter T Myers, Dr Patrick T Bergin, Dr Benjamin Kelley, Dr Timothy Demetriades

**Approved Project Title** **Dynamic magnetic resonance imaging in orthopaedics**

2010	\$65,000.00
2011	\$127,500.00
2012	\$125,000.00
2013	\$62,500.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

X Radiology Australia

**Administering Organisation** The University of Queensland

#### Project Summary

The research in this proposal aims at developing new imaging systems that enable joints to be imaged while they are moving. This is an Australian first technology and will change the way in which diagnosis of joint diseases is done. The applications of this new technique include the diagnosis and monitoring of treatment in Osteoarthritis and related chronic joint diseases. Also, acute injuries to knees, hips, shoulders and other joints will be able to be better diagnosed and hence improve treatment planning as a result.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0904 CHEMICAL ENGINEERING**

**The University of Adelaide**

**LP100200366** Dr Carl Q Howard, Prof Colin H Hansen, A/Prof Anthony C Zander, A/Prof Michael D Burch, Dr Peter P Hobson

**Approved Project Title** **Ultrasound for control of cyanobacteria**

2010	\$65,000.00
2011	\$125,000.00
2012	\$135,000.00
2013	\$75,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Australian Water Quality Centre, Melbourne Water Corporation, United Water International Pty Ltd, Water Corporation of WA, Water Quality Research Australia Ltd

**Administering Organisation** The University of Adelaide

**Project Summary**

Blue-green algae, also known as cyanobacteria, forms in drinking water supplies in Australia and can cause water-quality problems. Current methods to treat blue-green algae involve the use of Copper Sulphate, which is not an environmentally friendly compound. A potential alternative environmentally friendly water-treatment method involves the use of ultrasound to disrupt the cyanobacteria. The aim of this project is to determine the physical properties of the cyanobacteria when excited with ultrasound for the purpose of finding an efficient method to treat large volumes of water.

**LP100200616** Dr David M Lewis, Dr Stephen R Clarke, A/Prof Peter J Ashman

**Approved Project Title** **Energy from microalgae: industrial scale development and downstream processing of co-products**

2010	\$75,000.00
2011	\$150,000.00
2012	\$155,000.00
2013	\$80,000.00
2014	\$.00
2015	\$.00

APAI 2

**Partner/Collaborating Organisation(s)**

SQC Pty Ltd

**Administering Organisation** The University of Adelaide

**Project Summary**

In this project Australian researchers will develop processes to produce renewable energy and commodity chemicals from microalgae grown in open saline ponds, enabling sustainable production of commercial quantities of clean biofuels and commodity products for the future. Renewable energy is an essential part of Australia's low greenhouse gas emissions energy target and is central to energy security. The development of microalgal energy will help Australia's determination to meet its Kyoto target. Additional benefits will include the development of value-added co-products from microalgal biomass, which is one route to commercial success of the novel technology.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Newcastle

LP100200872 Prof Behdad Moghtaderi

Approved Project Title A novel approach for chemical looping gasification of municipal solid waste

2010	\$62,500.00
2011	\$142,500.00
2012	\$125,000.00
2013	\$45,000.00
2014	\$.00
2015	\$.00

### Partner/Collaborating Organisation(s)

N Moit and Sons NSW

Administering Organisation The University of Newcastle

### Project Summary

Conventional methods of municipal solid waste disposal, such as landfill and incineration, face strong community opposition because of their adverse environmental impacts. The proposed gasification process with its features, such as low energy demand, inexpensive manufacture, and simplicity, will offer an effective and alternative solution to the problem of municipal solid waste disposal. If deployed across the country, the volume reduction of waste will be 5 million tonnes per year. The corresponding reduction in greenhouse gases will be 15 Mega tonnes of carbon dioxide equivalent or 2.7 per cent of the net national emissions. About 9 Terra Watt hours of electricity (3 per cent of the national demand) can also be produced, generating \$700 million per annum.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Queensland

**LP100200223** Prof Jurg Keller, Dr Rene A Rozendal, Dr Korneel Rabaey, Mr Yvan P Poussade, Dr Cedric Robillot

**Approved Project Title** Iron and phosphorus recovery from ferric precipitation sludge

2010	\$45,000.00
2011	\$95,000.00
2012	\$105,000.00
2013	\$55,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Queensland Manufactured Water Authority, Veolia Water Australia

**Administering Organisation** The University of Queensland

#### Project Summary

To minimise health risks and environmental pollution, water and wastewater treatment processes often use iron salts to eliminate phosphate and other pollutants. This generates large amounts of chemical sludge that is typically sent to landfill. The benefits of this new process will be the recovery of both the iron, which can be reused in the process, and the phosphate, which is a key component in fertiliser. Since phosphate is a limited natural resource with an increasingly high value, the recovery and recycling of this critical element in food production is highly important. The process will also avoid a large part of the sludge production and will make the water treatment processes more cost-effective.

**LP100200002** Prof John Zhu, Dr Wei Zhou

**Approved Project Title** Scale up of direct carbon fuel cells

2010	\$95,000.00
2011	\$175,000.00
2012	\$165,000.00
2013	\$85,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

CARBON SYNERGY PTY

**Administering Organisation** The University of Queensland

#### Project Summary

As a modern society, Australia is highly reliant on energy which is derived predominantly from coal using pulverised fuel technology with low efficiency (35-40 per cent) and high greenhouse gas emissions. This project will develop a new method for the more efficient utilisation of Australia's coals. Consequently, the power generation industry in Australia will be able to export energy in the 80 per cent efficiency range, while pure carbon dioxide can be easily sequestered.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Western Australia

**LP100200135** Prof Dongke Zhang, Prof Zhihong Xu, Prof John W Cairney, Dr Chengrong Chen, A/Prof Hong Yang, A/Prof Ian C Anderson, Prof Vishnu K Pareek

**Approved Project Title** **Synthetic natural gas and biochar from biomass for energy services in remote communities and soil carbon sequestration**

2010	\$250,000.00
2011	\$500,000.00
2012	\$500,000.00
2013	\$550,000.00
2014	\$500,000.00
2015	\$200,000.00

APAI 4

#### Partner/Collaborating Organisation(s)

ANSAC Pty Ltd, BHP Billiton Iron Ore Pty Ltd, Department of Agriculture and Food WA, ENN

**Administering Organisation** The University of Western Australia

#### Project Summary

Resources, industry and rural communities, the backbone of Australian economy, are confronted by unprecedented challenges of carbon pollution reduction, land conservation and eco-sustainability to combat global climate change. This exciting, highly integrated and multidisciplinary project will develop a scientific basis and technological options for the resources industry and remote communities to respond to these challenges. The outcomes of this research will enable the deployment of renewable biomass energy technology, bio-char for carbon storage, and affect the restoration of marginal lands and salinity levels in an environmentally and economically sustainable way, thus contributing to the development of an environmentally sustainable Australia.

**LP100200136** Prof Dongke Zhang

**Approved Project Title** **Methanol to diesel**

2010	\$100,000.00
2011	\$185,000.00
2012	\$180,000.00
2013	\$95,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Chevron Energy Technology Pty Ltd

**Administering Organisation** The University of Western Australia

#### Project Summary

Australia has large remote gas reserves which are not accessible to markets via pipeline and cannot be effectively utilised using liquefied natural gas technology. Fischer-Tropsch conversion of gas to liquid (GTL), being capital intense, is uneconomical for these stranded gas resources. This project will develop a new GTL technology to produce sulphur-free, clean combustion diesel. The outcomes of this research will be a frontier technology that allows more effective utilisation of Australian remote gas resources to meet rising global demand for transport fuels, adding enormous value to Australian natural resources and contributing to Building and Transforming Australian industries.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

<b>LP100200137</b>	Prof Dongke Zhang, Prof Jinhu Wu
<b>Approved Project Title</b>	<b>An innovative two-phase anaerobic process for biogas production from green waste and animal droppings for remote communities</b>
2010	\$27,500.00
2011	\$57,500.00
2012	\$57,500.00
2013	\$27,500.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Qingdao Institute of Bioenergy and Bioprocessing Technology, South Coast Natural Resource Management Inc

**Administering Organisation**      The University of Western Australia

**Project Summary**

Australia's remote communities, including agricultural and Indigenous communities, are an important part of Australian society and a significant contributor to the Australian economy, yet their access to cheap, secure, reliable and clean energy remains a significant challenge. Building on recent scientific advancement in anaerobic digestion, this project will develop a new technology for biogas production using locally available resources such as green waste and animal droppings. The outcome of this project will provide clean energy services to regional communities while minimising greenhouse gas emissions associated with waste disposal and thus contribute to the development of an environmentally sustainable Australia.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0905 CIVIL ENGINEERING**

**Swinburne University of Technology**

**LP100200306** Prof Emad Gad, Prof John L Wilson

**Approved Project Title** **Minimisation of damage to residential structures due to ground movement**

2010	\$57,500.00
2011	\$115,000.00
2012	\$115,000.00
2013	\$57,500.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Association of Consulting Structural Engineers Victoria , Building Commission Victoria, Housing Engineering Design, Research Association , The Foundation and Footings Society (Vic) Inc, Victorian Department of Health

**Administering Organisation** Swinburne University of Technology

**Project Summary**

In Australia some 150,000 new houses are built every year with a total value of approximately \$40 billion; making it one of the most significant industries affecting consumers and industries. With a quadrupling of the cost of building new houses in the last 20 years, an increase in the levels of expectations of owners, a high rate of reported damage in new and existing houses, and predications of worsening conditions under climate change scenarios; there is an urgent need to evaluate the causes of damage. The outcomes from this project will assist in minimising damage to houses from ground movement and in adopting new performance-based design methods for new homes to better match owner expectations. This will lead to cost effective and innovative solutions to meet adverse conditions.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Newcastle

**LP100200717** Dr Olivier P Buzzi, Prof Scott W Sloan, A/Prof Stephen G Fityus, Prof Terry F Wall

**Approved Project Title** Combined strategies to extinguish underground coal fires and to extract geothermal energy

2010	\$77,500.00
2011	\$167,500.00
2012	\$152,500.00
2013	\$62,500.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Near Surface Geothermal Energy Pty Ltd

**Administering Organisation** The University of Newcastle

#### Project Summary

This project addresses two serious environmental issues that occur worldwide. Firstly, it aims to develop strategies to combat underground coal fires which are a serious environmental problem. It has been estimated that underground coal fires in China alone contribute 2 to 3 per cent of the total world output of carbon dioxide (CO<sub>2</sub>) from burning fossil fuel. Concentrations of CO<sub>2</sub> and CO (carbon monoxide) of up to 2200 ppm and 1000 ppm, respectively, have been measured in gases produced by underground coal fires. Secondly, the project is a proof of concept to validate the feasibility of production of geothermal energy from burning coal seams. This aspect has the potential to harvest large amounts of geothermal energy which is currently wasted.

**LP100200488** A/Prof Kristian Krabbenhoft, Prof Scott W Sloan

**Approved Project Title** Remediation of groundwater using permeable reactive barriers

2010	\$90,000.00
2011	\$185,000.00
2012	\$200,000.00
2013	\$105,000.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Hydro Aluminium Kurri Kurri

**Administering Organisation** The University of Newcastle

#### Project Summary

Permeable reactive barriers are passive subsurface installations that remove contamination from groundwater as it flows through a reactive substrate. This project will develop new permeable reactive barriers that will benefit the nation by building skills and knowledge in an area of growth in Australian industry, namely the rehabilitation of industrial lands and the protection and remediation of Australia's critical groundwater sources. The project is aimed at remediating an industrially contaminated site in the Hunter Valley, New South Wales, thereby contributing to the environmental improvement of that region. The technology developed will have wide application to other sites, both nationally and internationally.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**University of Wollongong**

**LP100200265** Prof Buddhima N Indraratna, Dr Cholachat Rujikiatkamjorn, Dr Jayan Vinod, A/Prof Jian Chu, Mr Andrew R Dunne, Dr Jayantha J Ameratunga, Mr Daniel Berthier, Mr Geoffrey W McIntosh, Dr Bruce G Blunden

**Approved Project Title** **Geotechnical properties and compaction characteristics of granular wastes as potential port reclamation fill**

2010	\$75,000.00
2011	\$142,500.00
2012	\$140,000.00
2013	\$72,500.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Austress Menard Pty Ltd (Sustainable Technology), BHP Billiton Ltd, Coffey Geotechnics Pty. Ltd., Douglas Partners Pty Ltd, Port Kembla Port Corporation

**Administering Organisation** University of Wollongong

**Project Summary**

In moving towards sustainable waste management, the Australian mining and steel industry is proactively seeking large scale recycling schemes for coal wash and slag. If the construction potential of these wastes is favourable for reclamation, then the environmental and socio-economic benefits will be substantial due to less quarrying of fresh rock and reduced volume of waste tips on otherwise usable land. The research outcomes will be published in peer-reviewed journals and conferences, raising Australia's scientific profile in granular waste management. The geotechnical community will benefit through the rigorous training of professionals, while industry hosted seminars will promote the dissemination of knowledge gained to practitioners.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0906 ELECTRICAL AND ELECTRONIC ENGINEERING**

**Edith Cowan University**

**LP100200006** Prof Kamal Alameh, Mr John Rowe

**Approved Project Title** **Development of a pre-production prototype for a laser-based plant sensing weed control system**

2010	\$45,000.00
2011	\$90,000.00
2012	\$90,000.00
2013	\$45,000.00
2014	\$ .00
2015	\$ .00

**Partner/Collaborating Organisation(s)**

Photonic Detection System Pty Ltd

**Administering Organisation** Edith Cowan University

**Project Summary**

Australian farmers spend over \$800 million per annum on herbicides. The proposed technology can reduce herbicide usage by 80 per cent (i.e. over \$640 million per annum saving) and improve crop yields by 30 per cent. Precision application of herbicides, fertilisers and nutrients to weeds and crops has both economic and environmental benefits which will increase farm profits and boost Australia's export sales. Reduced chemical loads on ecosystems will benefit the environment and reduced chemicals in the food chain will benefit the health of Australians. This development will put Australia at the cutting edge of precision spray technology and has numerous spin-off applications in many sectors.

**Griffith University**

**LP100200205** A/Prof Junwei Lu

**Approved Project Title** **High efficiency magnetics for high frequency and high energy density power converters used in renewable energy systems**

2010	\$13,334.50
2011	\$26,669.00
2012	\$26,669.00
2013	\$13,334.50
2014	\$ .00
2015	\$ .00

APAI 1

**Partner/Collaborating Organisation(s)**

HBCC PTY LTD

**Administering Organisation** Griffith University

**Project Summary**

This project will result in the development of more efficient power conversion technologies for solar energy production and enable greater utilisation of renewable, solar-generated power in the national electricity supply. Technology developed from this proposal will provide the solar power industry with several new high frequency magnetics technologies utilised in solar power converters. These solar technology innovations will result in national benefits through reduced carbon emissions from a greater uptake of renewable (solar) power. It will enable Australia to rise to meet the renewable energy generation and utilisation standards of the United States of America and Europe.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### Macquarie University

**LP100200663** A/Prof Michael C Heimlich, Prof Anthony E Parker, Dr Wen-Kai Wang, Mr Richard Kuo, Dr Simon J Mahon, Mr Anthony P Fattorini, Dr Shinichiro Takatani

**Approved Project Title** **Circuit-based monitoring and characterisation of high performance semiconductor processes**

2010	\$85,000.00
2011	\$142,500.00
2012	\$130,000.00
2013	\$72,500.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Mimix Broadband Inc, WIN Semiconductor Corporation

**Administering Organisation** Macquarie University

#### Project Summary

As a frontier technology, this project extends Australia's leadership in wireless communications. Potentially this project provides the key enabling method for integrated circuits to take full advantage of future generations of semiconductor technology. National Research Priorities safeguarding Australia and promoting and maintaining good health will also be impacted through more capable circuits for defence electronics and anti-terrorism, medical remote sensing and networking. The innovations here will make Sapphicon, Australia's only commercial integrated circuit manufacturer, more competitive and indirectly benefit National ICT Australia (NICTA), Commonwealth Scientific and Industrial Research Organisation (CSIRO), Defence Science and Technology Organisation (DSTO), the National Broadband Network and a host of other high-performance electronics concerns.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Melbourne

**LP100200571** Dr David B Grayden, Prof Anthony N Burkitt, Prof Dragan Nestic, Prof Mark J Cook  
**Approved Project Title** **Optimisation of signal processing and electrical stimulation algorithms for the abatement of epileptic seizures**

2010	\$42,500.00
2011	\$86,000.00
2012	\$90,000.00
2013	\$46,500.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

St Vincent's Hospital Melb, The Bionic Ear Institute

**Administering Organisation** The University of Melbourne

#### Project Summary

Epilepsy is the second-most common neurological disorder behind stroke and ischemic attacks, affecting 1-2 per cent of the nation's population. Pharmaceutical therapies are ineffective in approximately one third of cases, the result being a large unmet need for novel treatments. The devices to be produced through this project will improve the quality of life of many patients in the future and alleviate their dependence on traditional medications. The devices will also reduce the patients' requirements for medical practitioners, hospital and ambulance services, and will therefore also reduce the financial burden that neurological and epilepsy patients place on the community.

**LP100200094** Prof Iven M Mareels, Prof Doreen A Thomas, Dr Marcus N Brazil, Dr Kevin Prendergast  
**Approved Project Title** **The impact of the mass-adoption of electric cars on the Australian electricity grid**

2010	\$62,500.00
2011	\$97,500.00
2012	\$79,000.00
2013	\$44,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Better Place, Senergy Econnect Australia

**Administering Organisation** The University of Melbourne

#### Project Summary

This project represents the first technical study in Australia into the impact on the electric utility system of the mass adoption of electric vehicles. At present, road transport accounts for 12 per cent of greenhouse gas (GHG) emissions in Australia. The mass adoption of electric vehicles could reduce GHG in transport by up to 24 per cent when charged from the current grid or by 100 per cent if using renewable power. As well as receiving environmental advantages, Australia will benefit from this project through: (1) advancements in the management of the electricity distribution system by the development of a smart grid; (2) the development of principles for the placement of charging stations suitable for unique local conditions, such as Australia's long distances.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of New South Wales

**LP100200532** A/Prof Francois Ladouceur, Dr Andrew M Michie, Prof Vladimir G Chigrinov

**Approved Project Title** Multipoint voltage sensor for high power distribution lines

2010	\$45,000.00
2011	\$90,000.00
2012	\$90,000.00
2013	\$45,000.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Smart Digital Optics PTY LTD

**Administering Organisation** The University of New South Wales

#### Project Summary

This project will develop a new electric field sensor array for electricity transmission systems. The project proposes novel sensor designs based on hybrid technology; fibre optics and liquid crystals. Investment in student and researcher training will provide the industry, still in its early growth phase, with future human resources and strengthen research and development programs. The outcomes of this project will benefit our Australian-based Partner Organisation, Smart Digital Optics PTY LTD and will also increase Australian research expertise in the field of photonics materials.

**LP100200756** Dr Iain F MacGill, Dr Paul J Twomey, Dr Regina A Betz

**Approved Project Title** The economic value of smart integration of electric vehicles into the Australian electricity industry

2010	\$32,500.00
2011	\$77,500.00
2012	\$77,500.00
2013	\$32,500.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Better Place

**Administering Organisation** The University of New South Wales

#### Project Summary

The project will facilitate the potentially rapid and widespread deployment of Electric Vehicles (EV) in Australia with considerable social, economic and environmental benefits. The economics of our current road transportation sector are adversely impacted by rising and volatile oil prices. The near total reliance of the sector on an inherently limited and increasingly imported resource also has energy security implications. Road transport is also responsible for a significant proportion of Australian greenhouse emissions. EVs represent an extraordinary opportunity to address these challenges. However, widespread uptake will hinge on our ability to effectively integrate EV charging into the Australian electricity industry.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

<b>LP100200142</b>	Dr Geoffrey S Morrison, Dr Julien R Epps, Prof Eliathamby Ambikairajah, Prof Gary Edmond, Prof Joaquin Gonzalez Rodriguez, Dr Daniel Ramos, A/Prof Cuiling Zhang
<b>Approved Project Title</b>	<b>Making demonstrably reliable forensic voice comparison a practical everyday reality in Australia</b>
2010	\$55,000.00
2011	\$97,000.00
2012	\$84,000.00
2013	\$42,000.00
2014	\$.00
2015	\$.00

APDI                      Dr Geoffrey S Morrison

### **Partner/Collaborating Organisation(s)**

Australasian Speech Science and Technology Association, Australian Federal Police, Forensic and Data Centres, Guardia Civil, Departamento de Ingeniería - Área de Acústica, National Institute of Forensic Science Australia, Universidad Autonoma de Madrid (UAM), Victoria Police Forensic Services Centre, Western Australian Police, Forensic Division

**Administering Organisation**              The University of New South Wales

### **Project Summary**

To assist Australian law-enforcement agencies and courts in the process of the conviction of the guilty and the exoneration of the innocent, this project will develop and test a practical and demonstrably reliable forensic voice comparison system for use with Australian voices. This will allow forensic scientists to produce reliable strength of evidence statements for presentation in court using the same evaluative framework as used with DNA. In addition, application of the system during criminal investigations may lead to the refocussing of investigations on other suspects, or may help leverage guilty pleas, thus saving substantial time and money.

### **The University of Sydney**

<b>LP100200275</b>	Dr Floris A van Schaik, Dr Tara J Hamilton
<b>Approved Project Title</b>	<b>Novel circuits and design strategies for sub-65 nanometre complementary metal oxide semiconductor technologies</b>
2010	\$26,669.00
2011	\$53,338.00
2012	\$53,338.00
2013	\$26,669.00
2014	\$.00
2015	\$.00

APAI                      2

### **Partner/Collaborating Organisation(s)**

Perceptia Devices Australia Pty Ltd

**Administering Organisation**              The University of Sydney

### **Project Summary**

This project will develop novel, state-of-the-art circuits and design strategies that overcome the challenges of current and future Integrated Circuit (IC) fabrication technologies. The extremely small sizes of transistors in these technologies offer advantages in speed, but at the price of a number of drawbacks, which the project will aim to overcome in this work. This research will make a significant contribution to the field of IC design as well as providing training for students to fill the present and future needs of Australia's IC design companies. Some of the most advanced cochlear implants, mobile phone ICs, and Wireless Internet ICs have been designed in Australia, and companies in Australia desperately need graduates skilled in designing in the latest technologies.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### University of Wollongong

**LP100200461** Dr Jeffrey W Moscrop, Prof Christopher D Cook, A/Prof Sarath Perera, Dr Tee G Tang, Dr Jose R Lopez-Roldan

**Approved Project Title** **Harmonic, force and eddy current analysis of high voltage compact saturated core superconducting fault current limiters in electricity grids**

2010	\$80,000.00
2011	\$145,000.00
2012	\$150,000.00
2013	\$85,000.00
2014	\$.00
2015	\$.00

### Partner/Collaborating Organisation(s)

Powerlink Queensland, Zenergy Power Pty Ltd

**Administering Organisation** University of Wollongong

### Project Summary

This project is a clear example of applied research that utilises a frontier technology (superconductors) in an application with both national and community benefits. Superconducting fault current limiters are designed to protect and improve the availability of electricity grids in an energy efficient manner, since negligible impedance is applied to the network during normal load conditions. Efficient improvements to the reliability of electricity networks are of national interest, with any failures affecting industry and individuals. The proposed research team, which includes Powerlink (an Australian electricity utility), is in a leading position to further develop this technology for the national grid and a potential world market.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0907 ENVIRONMENTAL ENGINEERING**

**University of Wollongong**

**LP100200526** A/Prof Peter W Wypych, Dr Leong Mar, Ms Anita Hajetian, Mr David B Bennie

**Approved Project Title** Development and modelling of dust suppression technology

2010	\$22,500.00
2011	\$45,000.00
2012	\$52,500.00
2013	\$30,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

DuPont Australia Ltd

**Administering Organisation** University of Wollongong

**Project Summary**

Over 50 per cent of Australia's export income is derived from industries that rely on bulk materials handling and processing. With greater throughputs and increasing integration of transport routes, ports and residential communities, more pressure is being placed on industry to control its dust emissions. There is an urgent need for Australia to invest in a more unified and scientific approach to develop and optimise dust suppression technology for mining and export infrastructure. This project will help secure the sustainability of Australia's bulk exports by ensuring that products can be handled, conveyed and loaded safely and reliably. It will also reduce the risk of exposing workers and the community to unsafe concentrations of airborne dust.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0908 FOOD SCIENCES**

**Curtin University of Technology**

**LP100200125** Dr Stuart K Johnson, Prof Linda C Tapsell, Prof William E Price, A/Prof John F Ashton

**Approved Project Title** **Slowly digestible, high antioxidant sorghum: a new wholegrain food paradigm to help combat type 2 diabetes**

2010	\$30,000.00
2011	\$60,000.00
2012	\$60,000.00
2013	\$30,000.00
2014	\$ .00
2015	\$ .00

APAI 1

**Partner/Collaborating Organisation(s)**

George Weston Foods Ltd, Sanitarium Health Food Ltd

**Administering Organisation** Curtin University of Technology

**Project Summary**

This project has the potential to lead to benefits to several sectors of the community. Government and consumers will benefit by new sorghum foods helping to reduce diabetes, heart disease and obesity and the economic and quality of life burden of these diseases; health professionals will benefit through availability of new food products to recommend for disease risk-reduction and control; food processors will benefit through new value-added healthy food products for both the domestic and export markets and sorghum growers will benefit through a new opportunity to produce sorghum grain for higher value markets.

**Monash University**

**LP100200579** Prof Xiao Dong Chen, Dr Cordelia Selomulya

**Approved Project Title** **Breakthrough technologies for energy-efficient manufacture of dairy powders**

2010	\$55,000.00
2011	\$105,000.00
2012	\$105,000.00
2013	\$55,000.00
2014	\$ .00
2015	\$ .00

APAI 1

**Partner/Collaborating Organisation(s)**

Dairy Innovation Australia Ltd

**Administering Organisation** Monash University

**Project Summary**

The outcomes of this project will form a significant change for the dairy industry in Australia (as represented by Dairy Innovation Australia Ltd.). In particular, the enormous cost-saving and environmental benefits due to a more efficient drying process are attractive for the competitiveness of the industry internationally. The innovation gained is also applicable to food and pharmaceutical industries where spray drying and fluidised bed drying are integral parts of the manufacturing process. The project will train graduates to be able to make a high-level contribution to these industries.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### RMIT University

**LP100200617** Prof Stefan Kasapis, A/Prof John F Ashton

**Approved Project Title** **Creation of a new branch of food research by utilising whey protein in the development of novel products of low calorie content and glycemic response**

2010	\$35,000.00
2011	\$72,500.00
2012	\$77,500.00
2013	\$40,000.00
2014	\$ .00
2015	\$ .00

APAI 1

#### Partner/Collaborating Organisation(s)

Sanitarium Health Food Ltd

**Administering Organisation** RMIT University

#### Project Summary

Australian consumers are demanding healthy foods, yet our society is suffering from 'diseases of choice' such as obesity that largely result from our lifestyle. One particular problem is the low intake of nutrients in contemporary diet. Growing consumer interest in readily available and affordable foods with good nutrition has focused the industry on the merits of whey protein in processed products. This project will address the issue of consumer acceptability of whey-protein based products by rationalising at the molecular level the interactions of the protein with soluble dietary fibre and starch leading to added value formulations of appealing texture, low-calorie content and low glycemic load.

### University of South Australia

**LP100200597** Dr Alison M Coates, Dr Narelle M Berry, Prof Peter R Howe, A/Prof Jonathan D Buckley, Dr Janet Bryan

**Approved Project Title** **Evaluation of peanuts as a source of bioactive nutrients for enhancement of endothelial function and cognitive performance**

2010	\$13,334.50
2011	\$26,669.00
2012	\$26,669.00
2013	\$13,334.50
2014	\$ .00
2015	\$ .00

APAI 1

#### Partner/Collaborating Organisation(s)

Peanut Company of Australia

**Administering Organisation** University of South Australia

#### Project Summary

Functional foods represent one of the fastest growing food markets in the world, particularly foods which can offset adverse health conditions. The Partner Organisation, Peanut Company of Australia (PCA), is committed to developing peanut varieties, such as the high oleic peanut, that are nutritionally superior to the traditional varieties. By investing in research PCA aims to substantiate the nutritional benefits of these products and position itself in functional foods. Scientific evaluation of the health benefits that can be derived from consuming foods will enhance the national food industry through the growth of domestic and international licensing and export markets, and provide new employment opportunities in both rural and manufacturing sectors.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0909            GEOMATIC ENGINEERING**

**The University of Melbourne**

**LP100200199**        A/Prof Stephan Winter, Dr Matt R Duckham, A/Prof Timothy J Baldwin, Dr Allison N Kealy, Dr Lawrence Cavedon, A/Prof Lesley F Stirling, A/Prof Abbas Rajabifard

**Approved Project Title**        **Talking about place: tapping human knowledge to enrich national spatial data sets**

2010	\$50,000.00
2011	\$100,000.00
2012	\$100,000.00
2013	\$50,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Emergency Services Telecommunications Authority, Land and Property Management Authority NSW, PSMA Australia Ltd, Surveyor-General of Victoria

**Administering Organisation**        The University of Melbourne

**Project Summary**

Place descriptions are a common way for people to describe a location, but no current tools are smart enough to understand them. Emergency call centres are risking lives, users of navigation or web services are frustrated and addressing these problems costs billions of dollars per year. This project comes with a novel, interdisciplinary approach to automatically interpret human place descriptions and will develop novel methods to capture placenames with their meaning for smarter databases and automatic interpretation procedures. This acquired knowledge will be an important step forward for Australia's data custodians and users. Australia's location information industry will gain a significant advantage on a highly competitive global market.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0910 MANUFACTURING ENGINEERING**

**The University of Queensland**

**LP100200689** A/Prof Paul A Meehan, Dr William J Daniel, Dr Gui Wang, Dr Matthew S Dargusch

**Approved Project Title** **Predictive modelling of the incremental sheet forming process**

2010	\$17,500.00
2011	\$35,000.00
2012	\$35,000.00
2013	\$17,500.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Boeing Research and Technology Australia , QMI Solutions Limited

**Administering Organisation** The University of Queensland

**Project Summary**

This project will benefit Australia with the gain of fundamental understanding of an advanced manufacturing process leading to a step change from an 'art of expertise' to a scientific understanding and improvement. The innovative design software kernel developed will facilitate a step change in manufacture of complex sheet formed product, such as aircraft and vehicle panelling. This seed collaborative research with QMI Solutions and global partner, Boeing, will enhance national modelling capability in advanced metal forming, a niche market for Australian manufacturing. The new technology and research support capabilities for its adoption, will lead to new national business and export opportunities.

**University of Technology, Sydney**

**LP100200750** A/Prof Dikai Liu, Prof Kenneth J Waldron, Prof Gamini Dissanayake

**Approved Project Title** **Biologically inspired robotic system for steel bridge condition assessment**

2010	\$72,500.00
2011	\$142,500.00
2012	\$137,500.00
2013	\$67,500.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Roads and Traffic Authority of New South Wales

**Administering Organisation** University of Technology, Sydney

**Project Summary**

Australia has many thousands of steel bridges which form a key infrastructure supporting urban and rural communities. Periodic inspection is a vital undertaking that minimises risk of bridge failures and associated community impact. This project will develop a robotic inspection system capable of crawling over the structure, inspecting all areas, acquiring essential information and appropriately presenting these to a human operator to facilitate effective condition assessment. The project's outcomes will lay the foundation for the world-wide use of bio-inspired robots in civil infrastructure condition assessment, significantly increasing worker' safety and greatly reducing the costs and improving the efficiency of the inspection process.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0911 MARITIME ENGINEERING**

**The University of New South Wales**

**LP100200348** A/Prof Ian L Turner, A/Prof Ian D Goodwin, Dr Mark A Davidson, Prof Andrew D Short

**Approved Project Title** **Australian coastal observation network: monitoring and forecasting coastal erosion in a changing climate**

2010	\$65,000.00
2011	\$115,000.00
2012	\$105,000.00
2013	\$55,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

CoastalCOMS Pty Ltd, Gosford City Council, NSW Department of Environment, Climate Change and Water, University of Plymouth, Warringah Council

**Administering Organisation** The University of New South Wales

**Project Summary**

Australia's coastline is one of this country's greatest natural, economic and cultural resources. The asset value of existing beach-front infrastructure is immeasurable. Climate change is driving sea-level rise and changing regional wave climates, resulting in coastal erosion and increasing the threat to coastal sustainability. This research launches a strategic university-industry-government alliance to address the considerable and growing pressure for solutions to observe and forecast accelerating shoreline erosion. The new knowledge, greater cross-sector collaboration and international linkages to be fast-tracked by this project will inform and build the capacity of Australia's coastal managers to confront the challenges of a changing climate.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0912 MATERIALS ENGINEERING**

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### Monash University

**LP100200140** Dr Colleen J Bettles, Prof Barrington C Muddle, Dr Nick Birbilis, Prof Michael J Nicol, Mr Mauricio Chovar, Dr Alan D Stuart

**Approved Project Title** **Novel energy-efficient electrowinning anodes**

2010	\$25,000.00
2011	\$50,000.00
2012	\$50,000.00
2013	\$25,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

BHP Billiton Ltd, ORIGMA PTY LTD

**Administering Organisation** Monash University

#### Project Summary

Developed nations rely extensively on metallic materials to sustain modern society. This places a significant importance on delivery of base metals, and that delivery must be as efficient and clean as possible. The first step in the delivery chain is extraction from the ore, and much of this technology is based on electrowinning (EW), where the behaviour of the anode is critical to overall process efficiency. This project will deliver advances in EW anodes which will lead to energy savings, which in turn, will result in a cleaner overall production cycle, major emission reductions and cost savings. The expected outcomes of this project are targeted at the development of new and advanced anode materials.

**LP100200072** Prof Yuri S Estrin, Dr Rimma Y Lapovok, Prof Elena Ivanova, Mr Graham Johnson, Asst Prof Cornelia Kasper, Dr Terry C Lowe

**Approved Project Title** **Ultrafine grained titanium for bio-implant applications**

2010	\$90,000.00
2011	\$165,000.00
2012	\$165,000.00
2013	\$90,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Carpenter Technology Corporation, Cochlear Limited, Manhattan Scientifics, Incorporated

**Administering Organisation** Monash University

#### Project Summary

The project underpins the potential niche applications of ultrafine grained titanium for biomedical implants and establishes a knowledge base for expanding Australia's capacity for manufacturing titanium parts. The novel technology will lead to a broader usage of titanium by biomedical industry and promote the development of the titanium manufacturing industry in Australia. The development of ultrafine grained titanium specifically designed for bio-implants will increase Australia's competitiveness in the global market. The project targets at least three of the priority goals specified under National Research Priority breakthrough science, frontier technologies and advanced materials.



## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### RMIT University

**LP100200328** Prof Adrian P Mouritz, Prof Chun Hui Wang, Prof Dong Yang Wu

**Approved Project Title** Optimisation of self-healing repair systems in aerospace composite structures

2010	\$14,334.50
2011	\$28,719.00
2012	\$28,769.00
2013	\$14,384.50
2014	\$ .00
2015	\$ .00

APAI 1

#### Partner/Collaborating Organisation(s)

Boeing Research and Technology Australia

**Administering Organisation** RMIT University

#### Project Summary

Design and manufacture of composite structures for civilian and military aircraft is a multi-billion dollar export business for Boeing Aerostructures Australia and other Australian aerospace companies. To remain globally competitive, Australian industry must develop new expertise for next-generation composite aerostructures that are lighter, cheaper, more damage tolerant and easily repaired. Autonomic self-healing of composites is an innovative repair technology with many future potential applications for damaged aerostructures. This project will develop analytical tools and data to enable the Australian aerospace industry to take advantage of the economic benefits offered by self-healing repair systems in aircraft composite structures.

### The University of New South Wales

**LP100200607** Prof Donald W Kelly, Prof Alan G Crosky, Dr Jonathan H Gosse

**Approved Project Title** Experimental validation of the strain invariant failure theory for carbon/epoxy composites

2010	\$27,500.00
2011	\$47,500.00
2012	\$47,500.00
2013	\$27,500.00
2014	\$ .00
2015	\$ .00

#### Partner/Collaborating Organisation(s)

Boeing Defence Australia

**Administering Organisation** The University of New South Wales

#### Project Summary

The project will be of national and international benefit, through providing a validated, enhanced design capability for advanced composite materials. Greater depth of understanding of such materials will allow more efficient structures to be designed in applications requiring high strength and stiffness, low weight, and resistance to corrosion and fatigue. Such applications include the aerospace, offshore and mining industries. There are, therefore, far-reaching benefits in industries important to Australia. In addition, the reputation of the Australian aerospace research industry will be promoted through a collaborative association with Boeing, a world leader in development of commercial aircraft.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Queensland

**LP100200250** A/Prof Kazuhiro Nogita, A/Prof Han Huang

**Approved Project Title** **Development of new lead-free solders for use on aluminium conductors in photovoltaic systems and electric vehicles**

2010	\$25,000.00
2011	\$47,500.00
2012	\$50,000.00
2013	\$27,500.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

NIHON Superior Co. Ltd

**Administering Organisation** The University of Queensland

#### Project Summary

This project will tackle a longstanding environmental issue within electrical and electronic industries through developing lead-free solder alloys for use on relatively low cost aluminium substrates. As aluminium is a very light metal, this research will have significant impact on the development of photovoltaic devices and electric vehicles. The developed technology will also promote the use of aluminium alloys and bring direct benefit to Australian mining and light metal industries.

### The University of Sydney

**LP100200339** Prof Dr Thomas Maschmeyer, A/Prof Sebastien Perrier, A/Prof Anthony F Masters

**Approved Project Title** **Functionalised biopolymers - a new class of renewable nano-engineered materials**

2010	\$75,000.00
2011	\$170,000.00
2012	\$190,000.00
2013	\$95,000.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Ignite Energy Resources Pty Ltd

**Administering Organisation** The University of Sydney

#### Project Summary

Licella is an Australian start-up company, focusing on developing uses for the renewable resource lignocellulosic biomass; a fibrous material sourced principally from waste, such as that generated by forestry and agricultural operations. It is possible to use such waste and process it to separate the biomass components. This project proposes to modify these biomass fractions with living radical polymerisation (LPR) polymers to impart functionalities, such as antimicrobial properties, high tensile strengths and/or in-built photodegradability. New, high-performance sustainable materials like these will be the back-bone of the polymer/plastics industry of the future, replacing common plastics, sourced from non-renewable petrochemicals, with benign, sustainable plastics.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### Victoria University

**LP100200242** A/Prof Mikel C Duke, Prof Stephen R Gray, A/Prof Gayle E Morris, Mr Kenichi Nishizu, Dr Domun Choi, Prof Il-shik Moon

**Approved Project Title** **Development of advanced ceramic membranes: a robust solution to sustainable water treatment**

2010	\$45,000.00
2011	\$90,000.00
2012	\$90,000.00
2013	\$45,000.00
2014	\$.00
2015	\$.00

### Partner/Collaborating Organisation(s)

Chosun Refractory Co Ltd, C.I. CERAMICS (AUST.) PTY. LTD.

**Administering Organisation** Victoria University

### Project Summary

Australia is one of the driest nations on Earth. While available fresh water supplies dwindle, options to treat 'used' water for reuse are gaining rapid popularity. Membranes are now state-of-the-art for water treatment, including all new desalination plants, but as they are polymeric based, they must be routinely cleaned with chemicals and replaced. The outcomes of this research will demonstrate innovative functional ceramic membranes which last longer and have lower requirement for cleaning chemicals and expert maintenance. This, in turn, will deliver water at lower cost and reduced environmental burden (chemical and membrane disposal), giving industry more sustainable solutions to treat water, which has now become an essential practice in society.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0913 MECHANICAL ENGINEERING**

**RMIT University**

**LP100200034** Prof Sabu J John, Prof Simon Watkins

**Approved Project Title** **Energy capture from polymer based synthetic foliage**

2010	\$26,669.00
2011	\$53,338.00
2012	\$53,338.00
2013	\$26,669.00
2014	\$.00
2015	\$.00

APAI 2

**Partner/Collaborating Organisation(s)**

FCST (Fabrics and Composites Science and Technologies)

**Administering Organisation** RMIT University

**Project Summary**

Wind powered renewable energy technologies are rejected in urban or natural environments because of their noise and perceived danger to avian wildlife from conventional rotary wind turbines. The synthetic foliage will be used as a device for low energy applications which is expected to be more socially acceptable in urban settings. We anticipate that this will lead to increased adoption of renewable energy by the Australian public. Success of the project will lead to long term benefits for Australia including reduction of greenhouse gas emissions and the creation of jobs in the sustainable energy sector.

**The University of New South Wales**

**LP100200687** Dr Nicole J Kessissoglou, Dr Roger Kinns, Dr Steffen C Marburg, Dr Norman L Mulcahy

**Approved Project Title** **Optimal acoustic design of a composite marine propeller for signature management**

2010	\$13,334.50
2011	\$26,669.00
2012	\$26,669.00
2013	\$13,334.50
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Pacific Engineering Systems International Pty Ltd

**Administering Organisation** The University of New South Wales

**Project Summary**

Noise of maritime vessels affects passengers, crew and marine life. Composite marine propellers provide significant benefits over metallic propellers as they run more efficiently, thus consuming less fuel and run more smoothly, resulting in improved comfort for passengers and crew. From a military perspective, composite marine propellers provide reduced noise signature, resulting in vessels of greater stealth. Quieter propellers also significantly reduce the environmental impact of ships on marine life. This project will generate a new class of quiet composite propellers to be utilised by the maritime industry. The technologies developed by this project are applicable to rotors in other industries, such as aircraft, helicopters and wind turbines.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0914 RESOURCES ENGINEERING AND EXTRACTIVE METALLURGY**

**The University of New South Wales**

**LP100200238** Dr Serkan Saydam, Dr Paul C Hagan, Prof Alan G Crosky, Prof Bruce K Hebblewhite, Mr Peter H Craig

**Approved Project Title** **Avoiding catastrophic failure of rock bolts in underground coal mines**

2010	\$50,000.00
2011	\$100,000.00
2012	\$85,000.00
2013	\$35,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Anglo Coal Australia, Beltana Highwall Mining Pty Ltd, Jennmar Australia Pty Ltd, Narrabri Coal Operations Pty Ltd, Springvale Pty Ltd

**Administering Organisation** The University of New South Wales

**Project Summary**

This project will examine the factors responsible for the emerging problem of catastrophic failure of rock bolts in underground mines in order to develop strategies for resisting such failures. The consequences of rock bolt failure are potentially enormous from both a mine safety and economic standpoint. The strategies developed are expected to not only reduce the likelihood of injury and death from rock falls but to also reduce very expensive mine downtime and avoid costly replacement of broken rock bolts. Australian Rock Bolting Technology is now used internationally and the work will be of substantial significance both nationally and internationally. It will help maintain Australia's international prominence in this field.

**LP100200792** Prof Trevor D Waite, Dr Richard N Collins, Prof Brett A Neilan, Dr Greg Sinclair, Dr Robert J Ring

**Approved Project Title** **Biogeochemical controls on efficacy and sustainability of uranium heap leaching**

2010	\$50,000.00
2011	\$100,000.00
2012	\$100,000.00
2013	\$50,000.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Energy Resources of Australia Ltd

**Administering Organisation** The University of New South Wales

**Project Summary**

Improvement of the heap leaching process planned for Ranger Mine is of immense economic importance to Energy Resources of Australia Ltd. This project will benefit Australia, including Indigenous Australians who represent 18 per cent of the workforce at Ranger, through other flow-on effects, such as job creation in the Alligator Rivers regional economy and wealth generation to traditional landowners and all Australians through increased royalty payments to the Australian Government. This project will also provide insights into minimising the impacts arising from contaminant mobilisation in acid sulphate environments, such as acid mine drainage. As such, this project will greatly benefit the economic strength, health and environmental integrity of Australia.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Western Australia

LP100200173 Prof Andries B Fourie, Prof Martin Fahey

**Approved Project Title** Behaviour of a cementing slurry in a full-scale mining stope

2010	\$55,000.00
2011	\$110,000.00
2012	\$110,000.00
2013	\$55,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Barrick Gold of Australia Limited , Panoramic Resources Ltd

**Administering Organisation** The University of Western Australia

#### Project Summary

Any mining technique that allows improved extraction of ore from underground workings results in improved financial viability of the mining process concerned. Such improved extraction rates are being achieved by backfilling previously mined voids with cemented mine waste, which also improves stability of the underground workings. This research will further improve the financial viability of mines using this technique by reducing the amount of cement used, without compromising the safety of workers. In some otherwise marginal mines, these savings could be the difference between the mine staying open and being placed on care-and-maintenance, with the potential loss of jobs in mainly remote parts of the country.

### University of South Australia

LP100200533 A/Prof Daniel Fornasiero, Prof Stephen R Grano, Prof William M Skinner, Prof Lee R White, Dr Massimiliano Zanin, Dr Hamid Manouchehri, Prof Laurindo d Leal, Prof Allan Pring

**Approved Project Title** Collection of coarse, composite particles by bubbles in flotation

2010	\$50,000.00
2011	\$100,000.00
2012	\$100,000.00
2013	\$50,000.00
2014	\$.00
2015	\$.00

APAI 2

#### Partner/Collaborating Organisation(s)

AMIRA International Ltd, South Australian Museum, University of Sao Paulo

**Administering Organisation** University of South Australia

#### Project Summary

The minerals industry is of great importance to the Australian economy and flotation is an essential process for the separation of base metals, non-sulphide minerals, and coal. Community benefits will come through lower energy and water consumption in mineral processing. The industry partners will benefit also through increased process efficiencies including increased recovery and lower costs, as well as an exposure to unique methodologies that will maintain their technological edge, and the potential to significantly increase their profitability by optimising their mineral processing operations. This project will contribute to the maintenance of a critical mass of research infrastructure at the partner organisations.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**0915 INTERDISCIPLINARY ENGINEERING**

**Monash University**

**LP100200090** Prof John Sheridan, Prof Mark C Thompson, Prof Ivan Marusic, Dr Nicholas A Brown, Dr Jason P Monty, Dr Nicholas Hutchins, Dr David T Martin

**Approved Project Title** **Advancing unsteady bluff body aerodynamics: applications to elite cycling**

2010	\$60,000.00
2011	\$120,000.00
2012	\$125,000.00
2013	\$65,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Australian Institute of Sport

**Administering Organisation** Monash University

**Project Summary**

Delivering a better understanding of unsteady wakes has real potential to further our future capabilities of reducing bluff body parasitic drag. The national benefit derived from this project is the advancement of knowledge of a complex fluid mechanics problem, with secondary benefits arising from the specific and practical application to sports aerodynamics. By better understanding the wake structure and its interaction with a locally oscillating bluff body this knowledge can feed into the field of active flow control in the transport sector. The potential for emissions mitigation by lowering aerodynamic losses in the ground transportation section through active aerodynamic control is significant.

**The University of Newcastle**

**LP100200871** Prof Behdad Moghtaderi, Dr Elham Doroodchi, Mr Ian S Munro

**Approved Project Title** **Application of tuneable nanofluids in regenerative supercritical power generation**

2010	\$50,000.00
2011	\$95,000.00
2012	\$95,000.00
2013	\$50,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Granite Power Ltd

**Administering Organisation** The University of Newcastle

**Project Summary**

The proposed project combines the simplicity, flexibility, robustness and thermodynamic effectiveness of GRANEX™ cycle with the advances recently made in nanotechnology. If deployed across Australia to recover even 50 per cent of the 11,000 Gigawatt hour annual bioenergy potential, it will generate a revenue stream of approximately \$550 million per annum while reducing greenhouse emissions by 14 mega tonne, which is about 2.5 per cent of the annual national emissions. The proposed research will place Australia within the forefront of the research and development activities in the field of low grade heat recovery and will clearly contribute the Australian Government's National Research Priority an environmentally sustainable Australia.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1002 ENVIRONMENTAL BIOTECHNOLOGY**

**Murdoch University**

**LP100200380** Prof Dr Goen E Ho, Dr Ralf Cord-Ruwisch

**Approved Project Title** **Immobilized biocatalysts on selected filter media to control odour emissions from wastewater treatment and composting facilities**

2010	\$40,000.00
2011	\$70,000.00
2012	\$60,000.00
2013	\$30,000.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Southern Metropolitan Regional Council, Water Corporation of WA

**Administering Organisation** Murdoch University

**Project Summary**

Odour is one of the common problems faced by wastewater and solid waste industries as a result of public complaints about poor local air quality. Although odour removal technologies exist, they encounter a number of problems. The lack of harsh chemicals required for the proposed technology means there is no wastewater stream to treat. This will have an impact on the reduction of chemicals disposed to the environment, preventing unnecessary contamination of land and water resources. The lower space requirement of the technology will free up land, formerly required for large biofilters, for other uses including civic amenities.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1004 MEDICAL BIOTECHNOLOGY**

**The University of Sydney**

**LP100200680** Prof Rebecca S Mason, Dr Ramin Rohanzadeh, Prof Gary M Halliday

**Approved Project Title** Enhancing sunscreen DNA and photo-ageing protection

2010	\$52,500.00
2011	\$105,000.00
2012	\$120,000.00
2013	\$67,500.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Ultraceuticals Pty Ltd

**Administering Organisation** The University of Sydney

**Project Summary**

Skin damage from UV exposure is costly for individuals and the community, particularly in Australia, where the population has predominantly fair skin. While public campaigns to persuade the population to use sun protection and avoidance have been useful, this project will be the first to extend this approach to deliver a way to reduce sun damage from any UV exposure that does nevertheless occur, by incorporating the active agents into topical sunscreens or creams for after-sun use. The project will also build infrastructure for translational research on photo-damage, combining world-class facilities for this research with advanced formulation and manufacturing operations.



**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1007          NANOTECHNOLOGY**

**The University of Queensland**

**LP100200822**          Prof Paul Burn, Prof Paul Meredith

**Approved Project Title**          **A portable sensor for explosives**

2010	\$35,850.00
2011	\$75,000.00
2012	\$39,150.00
2013	\$.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Arborescent 2 Ltd

**Administering Organisation**          The University of Queensland

**Project Summary**

The National Research priority, safeguarding Australia, recognises that there is a real threat of terrorism and the need to protect Australians at home and abroad. Although there is often talk of dirty bombs, and biological and nuclear terrorism, the most easily sourced weapon of the terrorist is still the conventional explosive. The ability to detect trace amounts of explosives is therefore required. This means that there is a real need for a portable detection system with the ability to reliably sense a specific explosive selectively at low concentrations. This project concerns the development of a new handheld sensor that has the potential to increase the nation's security.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1099        OTHER TECHNOLOGY**

**University of Technology, Sydney**

**LP100200842**        Dr Saroj Lal, Mr David Burton, Dr Eugene Zilberg, Prof Dr Thomas Penzel

**Approved Project Title**        **Improving road safety: advanced hybrid vehicle-based technology for monitoring driver drowsiness**

2010	\$40,000.00
2011	\$80,000.00
2012	\$80,000.00
2013	\$40,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Compumedics Ltd

**Administering Organisation**        University of Technology, Sydney

**Project Summary**

Innovative technology geared towards reducing road accidents and fatalities (for improving public health) will constitute major socio-economic benefit to Australia. The Australian Transport Safety Bureau notes fatigue as a major cause of road accidents (2006). The World Health Organisation dedicated World Health Day 2004 to road safety and emphasized the importance of combating fatigue ('Road Safety is no Accident'). This research will develop an innovative driver drowsiness detecting technology. With drowsiness attributable to substantial road fatalities, this technology aims to reduce this emotional and socio-economic burden on the community, contributing to national and community benefit by providing a safer road environment.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1103 CLINICAL SCIENCES**

**The Flinders University of South Australia**

**LP100200413** Prof Mary A Luszcz, Asst Prof Denis Gerstorf, A/Prof Christiane A Hoppmann

**Approved Project Title** **Day-to-day life of adults after age 85: the interplay of mood, engagement, cognition and health in the context of prior functioning**

2010	\$75,315.50
2011	\$105,990.50
2012	\$61,350.00
2013	\$30,675.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Anglicare SA Inc, COTA Seniors Voice, ECH, Helping Hand Aged Care Inc, Office for the Ageing, SA Department of Health, The Pennsylvania State University, The University of British Columbia

**Administering Organisation** The Flinders University of South Australia

**Project Summary**

The research will offer considerable social benefits to the Australian community by providing a rare insight into how people over the age of 85 can continue to contribute actively to, and remain engaged with, society. It will improve knowledge and understanding of productive ageing by examining how everyday cognition and mood vary depending on different situational contexts and daily activities. It will offer information on the challenges and opportunities experienced by this group of older adults, and reveal the inter-relatedness of social networks, isolation, independence and health for this group of very old adults.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1107        IMMUNOLOGY**

**The University of Melbourne**

**LP100200728**        A/Prof Jean-Pierre Y Scheerlinck, A/Prof Philip Sutton

**Approved Project Title**        **Understanding immune mechanisms induced by pulmonary vaccination**

2010	\$55,253.50
2011	\$110,507.00
2012	\$110,507.00
2013	\$55,253.50
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

CSL Ltd

**Administering Organisation**        The University of Melbourne

**Project Summary**

This project aims to better understand the mechanisms of immune induction of a novel lung vaccination strategy. The ability to deliver vaccines that induce potent lung and body wide immune responses in a safe and efficient manner has wide implications for both human and animal health. Ultimately, the vaccine will be delivered to the lung as stable dry powders in an attempt to negate the need for a transport cold chain and therefore facilitate the distribution of the vaccines to remote areas. The project will not only benefit the Australian biotechnology industry but also the community at large and in particular those in remote areas without access to modern medical facilities.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1109 NEUROSCIENCES**

**Monash University**

**LP100200782** Prof Brian J Oldfield, A/Prof John B Dixon, Dr Joseph Raven

**Approved Project Title** **Use of an animal model to understand mechanisms underlying reductions in body weight associated with use of the laparoscopic adjustable gastric band**

2010	\$45,000.00
2011	\$90,000.00
2012	\$45,000.00
2013	\$ .00
2014	\$ .00
2015	\$ .00

**Partner/Collaborating Organisation(s)**

Allergan Inc

**Administering Organisation** Monash University

**Project Summary**

At least one in ten Australians is classified as morbidly obese and as such are eligible for bariatric surgery. Those undergoing the surgery will achieve an average excess weight loss of up to 60 per cent, they will have reduced or eliminated diabetes and will appreciably improve their prospects of survival. These experiments aimed at understanding the mechanisms underpinning this success have the potential to further improve surgical approaches and outcomes and provide insights that will better enable weight loss therapies for all overweight and obese Australians.

**RMIT University**

**LP100200710** A/Prof Peter Smooker, Prof Peter J Coloe, Dr Russell Conduit, Dr Anthony C Sasse

**Approved Project Title** **Increasing the utility of tetanus toxins by protein engineering**

2010	\$26,970.00
2011	\$54,470.00
2012	\$55,000.00
2013	\$27,500.00
2014	\$ .00
2015	\$ .00

**Partner/Collaborating Organisation(s)**

Nocturne Sleep Pty Ltd

**Administering Organisation** RMIT University

**Project Summary**

There are a variety of common diseases that are the result of muscular defects. Some of these may be able to be treated with an agent that increases muscle tone, thereby giving benefit to the patient in the alleviation of symptoms. This project aims to use some of the most potent substances known, bacterial toxins, and engineer them to be valuable agents for treatment of certain muscular disorders.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Melbourne

**LP100200129** Dr Bang V Bui, Prof Algis J Vingrys, Dr Christine T Nguyen, Dr Magnus Ivarsson  
**Approved Project Title** Using the eye as a window to the central nervous system for improved drug testing

2010	\$97,500.00
2011	\$202,500.00
2012	\$185,000.00
2013	\$110,000.00
2014	\$30,000.00
2015	\$.00

APAI 1

### Partner/Collaborating Organisation(s)

Pfizer Pty Ltd

**Administering Organisation** The University of Melbourne

### Project Summary

The annual cost of treating brain illnesses is US\$250 billion. Each new drug costs about US\$900 million to develop. This research will give Pfizer Pty Ltd, the project's industry partner, a more efficient and direct way of testing whether drugs can get into and affect the brain. This will reduce the cost of drug development, which ultimately means cheaper drugs. The project will develop new technologies to put Australia at the forefront of neuropharmaceutical and neuroscience research. A new research platform will foster collaborations with the pharmaceutical industry both within Australia and overseas. This industrial link will promote a unique post-graduate experience by providing exposure to academic and industrial environments for Australian scientists.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1113 OPTOMETRY AND OPHTHALMOLOGY**

**The University of Melbourne**

**LP100200662** A/Prof Ecosse L Lamoureux, Dr Mohamed Dirani, Dr Gwyn Rees, Prof Tien Y Wong

**Approved Project Title** **Personalising the management of diabetes care in non-English speaking Australian adults with diabetic retinopathy**

2010	\$50,000.00
2011	\$112,500.00
2012	\$115,000.00
2013	\$71,050.00
2014	\$18,550.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Diabetes Australia Victoria, Royal Victorian Eye and Ear Hospital

**Administering Organisation** The University of Melbourne

**Project Summary**

Reducing the public health burden of diabetes and diabetic retinopathy for non-English speaking Australians is a major challenge for health care providers, researchers, and health policy makers. In addition to improving self care, eye health, and quality of life, this intervention has considerable potential to deliver substantial savings to the Australian community. It will also provide a novel and valid diabetes management program and contribute to future health policies related to personnel, resources and funding allocated to diabetes, eye care, and rehabilitation. This project will raise the skill of existing diabetes educators and serve to generate closer coordination of care between tertiary eye care services and primary care settings.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1114 PAEDIATRICS AND REPRODUCTIVE MEDICINE**

**The University of Adelaide**

**LP100200800** A/Prof Frank S Gruetzner, Mr Robert M King, Dr Dean A Male

**Approved Project Title** **Development of a diagnostic microarray to detect aneuploidy in single cells**

2010	\$32,500.00
2011	\$65,000.00
2012	\$32,500.00
2013	\$.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

GeneWorks Pty Ltd, Reproductive Health Science Pty Ltd

**Administering Organisation** The University of Adelaide

**Project Summary**

Chromosomal abnormalities account for about 10 per cent of all babies born with a defect. The risk of chromosomal abnormalities increases with maternal age and in patients with fertility problems. It has been estimated that 50 per cent of all embryos are aneuploid. Chromosomal aberrations also occur in the vast majority of tumours in humans. Accurate and rapid detection of chromosomal defects is an important health service delivered to the Australian public. This project aims to develop better tests for application in prenatal diagnostics including non-invasive testing of fetal cells from maternal circulation or cervical samples at 6-13 weeks gestation, IVF and cancer diagnostics.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1115 PHARMACOLOGY AND PHARMACEUTICAL SCIENCES**

**The University of Sydney**

**LP100200156** Dr Daniela Traini, A/Prof Paul M Young, Prof Hak-Kim Chan

**Approved Project Title** **Engineering pressurized liquid droplets to generate high-efficiency aerosols for targeted respiratory delivery**

2010	\$50,000.00
2011	\$97,500.00
2012	\$95,000.00
2013	\$47,500.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Chiesi Limited

**Administering Organisation** The University of Sydney

**Project Summary**

Many macroscopic aspects of pressurised Metered Dose Inhaler (pMDI) for respiratory diseases are recognised, but are yet to be understood at the basic level and accordingly exploited. In particular, the droplet charge mechanism in non-aqueous pMDIs remains elusive. Currently, although a wide range of drugs are commercially available as pMDIs, the efficiency of these systems is poor, with most devices delivering less than 20 per cent to the lung. An insight into these systems is crucial to successfully enhance the performance of aerosol formulations in industry, ultimately translating into superior patient therapy. This project will create a theoretical model for pMDI formulation that can be applied to the development of a new generation of inhalation medicines.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1117 PUBLIC HEALTH AND HEALTH SERVICES**

**Curtin University of Technology**

**LP100200185** Prof Gill Lewin, Dr Christine M Toye, Prof Peter A Howat, Prof Moyez Jiwa, A/Prof Satvinder S Dhaliwal, Prof Duncan P Boldy, Miss Kristen M De San Miguel

**Approved Project Title** **Personal alarms - use, expectations and outcomes**

2010	\$42,484.50
2011	\$81,777.50
2012	\$74,802.00
2013	\$35,509.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Silver Chain Nursing Association Incorporated, Tunstall Healthcare Asia Pacific

**Administering Organisation** Curtin University of Technology

**Project Summary**

Personal alarms are designed to enable older people who are living alone to gain assistance in an emergency. Australia's population is ageing and the number of older people living alone is increasing. Although personal alarms have been available for many years there has been surprisingly little research and there are still many gaps in our knowledge. These limit our ability to maximise the potential of this technology in enabling older Australians to age well and productively at home. This project seeks to enhance our understanding of the adoption and appropriate use of this technology by older Australians and inform the development of strategies to achieve maximum benefit for both older individuals and the community at large.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### Griffith University

**LP100200446** Prof Paul A Scuffham, Dr Jennifer A Whitty, A/Prof Julie Ratcliffe, Prof Paul A Burton, Prof Elizabeth Kendall, Prof Donald A Wilson, Mr Ashley R Creighton, Prof Peter Littlejohns, Dr Kalipso Chalkidou

**Approved Project Title** **Engaging the public in healthcare decision making: quantifying preferences for healthcare through Citizens' Juries**

2010	\$69,269.00
2011	\$128,438.00
2012	\$114,375.50
2013	\$55,206.50
2014	\$.00
2015	\$.00

APAI 2

#### Partner/Collaborating Organisation(s)

National Institute for Health and Clinical Excellence, Population and Primary Health Care, Queensland Health

**Administering Organisation** Griffith University

#### Project Summary

This project promotes public engagement and quantifies preferences in key areas of relevance to the industry partners Queensland Health and South Australia Health. These areas identified are elective surgery priorities, optimising appropriate use of emergency care, and interventions for obesity. A series of choice experiments and citizens' juries will be used. The project will facilitate identification and application of optimal methods for engaging the public in healthcare decision-making, provide guidance on the appropriate population groups to consider when eliciting consumer preferences, and provide direct public input to guide health policy. The approach will be able to be applied to different policy areas.

### La Trobe University

**LP100200716** Dr Suzanne J Dyson, Dr Michael G Flood, A/Prof Moira M Carmody

**Approved Project Title** **Taking a stand: a case study of culture change addressing violence against women in a major sporting organisation in Australia**

2010	\$34,351.00
2011	\$61,202.00
2012	\$40,185.50
2013	\$13,334.50
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Australian Football League, VicHealth

**Administering Organisation** La Trobe University

#### Project Summary

This project will provide a focused investigation of settings-based primary prevention of violence against women, a contribution which has been absent thus far in Australian and international scholarship. This project will potentially contribute to improving women's health and wellbeing, and preventing crimes associated with violence against women. It will do this by informing policy development and identifying principles for good practice in institutional settings. It will also generate knowledge regarding the processes involved in changing attitudes and behaviours to achieve culture change within organisations and the wider community.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### Queensland University of Technology

**LP100200723** Prof Donna C Berthelsen, A/Prof Jan M Nicholson, Ms Kate E Williams, Ms Vicky S Abad

**Approved Project Title** Parental engagement in supported playgroups

2010	\$20,750.00
2011	\$20,750.00
2012	\$.00
2013	\$.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Playgroup Queensland

**Administering Organisation** Queensland University of Technology

#### Project Summary

Supported playgroups are an important strategy within Australia's current family policies. However, supported playgroups have been implemented in the absence of strong theoretical or empirical evidence about their effectiveness in promoting positive outcomes for parents and children in families with high support needs. This study undertakes an important step in establishing an evidence-base for supported playgroup programs, by determining the factors associated with variations in parent engagement. Findings have national benefit by providing key information for enhancing program design and program quality in order to improve the capacity of family support programs to retain vulnerable families in services.

**LP100200038** Prof Narelle L Haworth, A/Prof Herbert C Biggs, A/Prof Andry Rakotonirainy, Dr Mark J King

**Approved Project Title** Integrating technological and organisational approaches to enhance the safety of roadworkers

2010	\$90,000.00
2011	\$180,000.00
2012	\$185,000.00
2013	\$95,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Australian Workers Union, GHD Pty Ltd, Leighton Contractors, QLD Department of Transport and Main Roads

**Administering Organisation** Queensland University of Technology

#### Project Summary

Across Australia about 50 people are killed and 750 are injured in crashes at roadworks each year, costing hundreds of millions of dollars. Making roadworks safer is a complicated task, involving multiple organisations as well as the motoring public. This project will develop and evaluate an integrated program including research into new technologies, testing of strategies to improve organisational and safety culture, and investigation of education approaches. At a time of unprecedented spending on improving Australia's road infrastructure, this research will contribute to ensuring the safety of the workers directly involved in the road improvements necessary to achieve major long-term economic and social benefits.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### RMIT University

**LP100200638** Prof Xinghuo Yu, Prof Dr Jeffery D Hughes, Dr Wei Peng  
**Approved Project Title** **Practice-based Systematized Nomenclature of Medicine (SNOMED) concept learning for drug-disease precaution early detection and refinement**

2010	\$26,669.00
2011	\$53,338.00
2012	\$53,338.00
2013	\$26,669.00
2014	\$.00
2015	\$.00

APAI	1
APAI_IT	1

#### Partner/Collaborating Organisation(s)

First DataBank Australia Pty Ltd

**Administering Organisation** RMIT University

#### Project Summary

The outcome of the Systematized Nomenclature of Medicine (SNOMED) concept learning system will help mitigate the impact of Adverse Drug Events hence directly contribute to the National Research Priority promoting and maintaining good health. It will tailor SNOMED knowledge to different clinical settings and provide evidence-based preventative health care. The enabling methodology from this project for building computerised cognitive learning systems will be a frontier technology to enhance smart information use in clinical decision support. It will also contribute to the development of knowledge-based systems. A network version of the developed system will assist doctors working in rural and remote areas with their clinical decision making and prescribing practice.

### The Flinders University of South Australia

**LP100200549** Dr Carlene J Wilson, Prof Paul R Ward, Prof John Coveney, A/Prof Garry L Robins, Ms Caroline Miller, Prof Jonathan D Karnon, Dr Laura M Koehly  
**Approved Project Title** **Intergenerational transmission of dietary behaviour**

2010	\$34,912.00
2011	\$69,774.00
2012	\$71,972.50
2013	\$37,110.50
2014	\$.00
2015	\$.00

APAI	1
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#### Partner/Collaborating Organisation(s)

Cancer Council SA

**Administering Organisation** The Flinders University of South Australia

#### Project Summary

The health of future generations depends largely on the health of current generations. Bad eating habits associated with obesity and other chronic diseases are often passed from parents to children. This study will provide insight into the ways in which these habits are perpetuated within families of various cultural backgrounds. It will establish how assessing family health history can be used as a tool to help identify and modify the risk of chronic, life-threatening disease in families and individuals. If proven effective, this tool can be rolled out nationwide to help promote and maintain healthier diets in Australian families and reduce the economic burden on the government.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Adelaide

**LP100200007** Prof Annette J Braunack-Mayer, A/Prof Maree F O'Keefe, Dr Rachel Skinner, Dr Kirsten J McCaffery, Ms Teresa Burgess, Dr Helen S Marshall, Mrs Maureen Watson

**Approved Project Title** **Optimising intersectoral collaboration between the health and education sectors**

2010	\$63,650.00
2011	\$127,940.00
2012	\$64,290.00
2013	\$.00
2014	\$.00
2015	\$.00

### Partner/Collaborating Organisation(s)

Adelaide Women's and Children's Hospital, CSL Ltd, GlaxoSmithKline, SA Department of Education and Children's Services, SA Department of Health

**Administering Organisation** The University of Adelaide

### Project Summary

The Australian Government has a clear commitment to improving the health of all Australians. In the face of rising rates of chronic illness and attendant unsustainable high medical costs, optimising outcomes for public health initiatives, such as school based immunisation programs, is of the utmost importance. The recent H1N1 (Swine Flu) epidemic school closures highlight the need for a more effective, efficient and flexible intersection between education and health. This project offers the opportunity for the public health and education sectors to work closely together to identify how they can best configure future collaborations to maximise outcomes for all Australians.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Melbourne

**LP100200182** Dr Rebecca Bentley, Dr Emma Baker, Dr Shelley Mallett, A/Prof Anthony D LaMontagne, Prof Andrew P Beer, Prof Anne M Kavanagh, Dr Deborah W Keys, Ms Violet Kolar

**Approved Project Title** **New directions in health inequalities research: understanding the intersection between housing, employment and health in Australia**

2010	\$32,500.00
2011	\$65,000.00
2012	\$32,500.00
2013	\$.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Hanover Welfare Services, Melbourne Citymission, VicHealth

**Administering Organisation** The University of Melbourne

#### Project Summary

People employed on a casual basis in Australia are nearly three times more likely to live in a household that is in housing affordability stress than their permanently employed counterparts. Employment and housing are both determinants of health. While social inclusion, employment and housing affordability are critical components of the government's current social policy agenda, articulation between these policy domains is limited and little researched. This important study will provide robust evidence on the ways that housing and employment interact to both cause and prevent health inequities. This will directly benefit agencies delivering services to vulnerable people and contribute to an evidence base of benefit to policy makers.

**LP100200432** A/Prof Jane R Fisher, Dr Heather Rowe, Ms Sara N Holton, Ms Vikki Sinnott, Ms Lynne G Jordan, Dr Kathleen M McNamee, A/Prof John C McBain, Dr Christine M Bayly

**Approved Project Title** **Understanding fertility management in contemporary Australia**

2010	\$40,000.00
2011	\$80,000.00
2012	\$65,000.00
2013	\$25,000.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Family Planning Victoria Inc, Melbourne IVF Pty Ltd, Royal Women's Hospital, Victorian Department of Health

**Administering Organisation** The University of Melbourne

#### Project Summary

Fertility management, including unintended pregnancy and infertility carry substantial public costs including increased health service use and reduced economic participation. Both are experienced in individual lives, contributing to disappointed life goals, altered social and family relationships, the burden of stigma, and compromised physical and mental health. The goal of this research is to reduce the public and personal costs of sub-optimal fertility management by providing the knowledge for improving national reproductive and sexual health promotion strategies. The consequence will be increased likelihood that pregnancies are intended and reproductive hopes realised. Data will contribute to National Research Priorities of promoting health and strengthening families.



**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

<b>LP100200164</b>	Prof Elizabeth B Waters, Prof Richard A Bryant, Prof Philippa E Pattison, Dr Lisa F Gibbs, Prof Mark C Creamer, A/Prof Louise K Harms, Dr Dean S Lusher, A/Prof Colin MacDougall
<b>Approved Project Title</b>	<b>Bushfires, social connectedness and mental health</b>
2010	\$151,116.00
2011	\$220,090.00
2012	\$232,228.50
2013	\$301,368.00
2014	\$259,179.00
2015	\$121,065.50

APAI 1  
APDI Dr Dean S Lusher

**Partner/Collaborating Organisation(s)**

Australian Red Cross, Australian Rotary Health , Banyule Community Health Service, Bendigo Loddon Primary Care Partnership, Central Hume Primary Care Partnership, Central West Gippsland Primary Care Partnership, Centrelink, Lower Hume Primary Care Partnership , Outer East Health and Community Support Alliance , Victorian Department of Health

**Administering Organisation** The University of Melbourne

**Project Summary**

The 2009 Victorian bushfires caused much loss of life, property destruction, and community disturbance. It is important for Promoting Better Health and Strengthening the Social and Economic Fabric that an accurate understanding is achieved of the factors that contribute to optimal recovery from natural disasters. This project will survey people affected by the fires over 5 years to both profile adaptation after the fires and to identify the individual and community processes that influence outcome. This project being undertaken in partnership by academic, disaster management, health and community organisations will provide crucial information for shaping policy for disaster management in the years ahead.



## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of New South Wales

**LP100200586** Prof Jeffrey Braithwaite, Prof Johanna I Westbrook

**Approved Project Title** **Strengthening organisational performance through accreditation research: the ACCREDIT project**

2010	\$150,000.00
2011	\$300,000.00
2012	\$300,000.00
2013	\$405,000.00
2014	\$275,000.00
2015	\$20,000.00

APAI 2

#### Partner/Collaborating Organisation(s)

Aged Care and Standards Accreditation Agency , Australian Commission on Safety and Quality in Health Care , Australian Council on Healthcare Standards , Australian General Practice Accreditation Limited , The Clinical Excellence Commission

**Administering Organisation** The University of New South Wales

#### Project Summary

This project will address multiple national benefits, including the National Research Priority, promoting and maintaining good health. Our knowledge of how accreditation, standards-setting and surveying contributes to organisational performance and quality of care will be considerably improved. Better health policy, improved services to patients, enhanced consumer involvement in their own care and research results for use by national bodies, other industries and international partners are some of the key benefits this project aims research achieve. The community is vitally interested in the costs of health services, the value for money they produce and the standards of care provided.

**LP100200150** Prof Mark R Dadds, Dr David J Hawes, A/Prof John L Brennan

**Approved Project Title** **Development of a comprehensive model and programmed intervention for emotion processing deficits in childhood-onset mental health problems**

2010	\$61,612.50
2011	\$123,476.50
2012	\$124,173.50
2013	\$62,309.50
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Royal Far West

**Administering Organisation** The University of New South Wales

#### Project Summary

This research is in the National Research Priority, promoting and maintaining good health. Mental health problems cost Australia millions of dollars every year as well as creating immeasurable social adversity for individuals and families. The proposed research represents a significant step towards reducing these costs and improving the effectiveness of early intervention and prevention. The research will lead to improvements in methods for early detection of child psychopathology with potential for implementation in both community health and educational services nation-wide. The research partnership will build Australia's capacity for innovative research in the development, early intervention and treatment of mental health problems.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Queensland

**LP100200349** A/Prof Jayne C Lucke, Dr Deborah J Loxton, Prof Christina Lee, Prof Annette J Dobson, Prof Ian S Fraser, Dr Edith Weisberg

**Approved Project Title** **A longitudinal study of patterns of contraception use and access to contraceptive information, advice and services for young Australian women**

2010	\$41,575.50
2011	\$96,248.00
2012	\$101,725.50
2013	\$47,053.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Bayer Australia Ltd, Family Planning NSW

**Administering Organisation** The University of Queensland

#### Project Summary

This study will inform the design of contraceptive education and service delivery, particularly to young women in rural areas, in collaboration with industry partners; Family Planning NSW and Bayer HealthCare. Improved education and access, leading to increased control of fertility, will contribute to the development of stronger families and stronger communities, while reducing the personal, social and economic costs of unplanned pregnancies.

**LP100200462** Prof Philip Weinstein, A/Prof Dino L Pisaniello, Dr Maree L Corkeron, A/Prof Robert Finkelman, Dr Gregory P Jackson

**Approved Project Title** **A screening human health risk assessment for developing coal seam gas water resources in Queensland, Australia**

2010	\$42,500.00
2011	\$42,500.00
2012	\$.00
2013	\$.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

MBA Petroleum Consultants Pty Ltd, Queensland Health, Santos Ltd (Qld), University of Texas, Dallas

**Administering Organisation** The University of Queensland

#### Project Summary

Due to its rich coal seam deposits, Queensland is projected to become Australia's leading coal seam gas (CSG) producer, contributing significantly to the State's economy and national "clean" energy targets. Over a 30 year period, it is estimated that Queensland's CSG industry could also create by-product water of sufficient volume to beneficially augment the State's future water supply demands. The proposed screening Health Risk Assessment will evaluate the relative risks associated with human exposure to raw and treated CSG by-product water contaminants, informing public debate on this matter, and guide policy development within the complex multi-sector regulatory framework in place for CSG water resource development in Queensland.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Sydney

**LP100200198** A/Prof Yun-Hee Jeon, Prof Hal L Kendig, Prof Judy M Simpson, Prof Lynn L Chenoweth

**Approved Project Title** **Optimising the residential and community aged care workforce: the evidence-based development of clinical leadership in middle managers in aged care**

2010	\$55,062.50
2011	\$106,650.50
2012	\$88,963.50
2013	\$37,375.50
2014	\$.00
2015	\$.00

### Partner/Collaborating Organisation(s)

Baptist Community Services (NSW and ACT)

**Administering Organisation** The University of Sydney

### Project Summary

1.4% of the Australian workforce is employed in the aged care sector, making a significant contribution to the economy. This study provides evidence-based tools to build management capacity and leadership in aged care, which in turn will improve the quality and effectiveness of the care that has a crucial bearing on the lives of vulnerable older people in community and residential care. The findings will identify ways to improve aged care workforce retention; and enhance key factors leading to quality care and improved well being of care staff and recipients. This knowledge will contribute to improving the status of aged care related employment; and yield future policy directions that promote effective clinical leadership in aged care.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**The University of Western Australia**

**LP100200749** Prof Andrew C Page, Mr Geoffrey R Hooke

**Approved Project Title** **A mental health "thermometer" to monitor and prevent adverse treatment outcomes and self-harm among psychiatric inpatients**

2010	\$15,000.00
2011	\$30,000.00
2012	\$36,000.00
2013	\$39,500.00
2014	\$37,500.00
2015	\$19,000.00

APAI 1

**Partner/Collaborating Organisation(s)**

Perth Clinic

**Administering Organisation** The University of Western Australia

**Project Summary**

Our project stands to prevent adverse outcomes in psychiatric patients. An estimated 660 000 people are admitted to psychiatric hospitals each year; 99 000 of these people are worse off following treatment (assuming a deterioration rate of 15 per cent). Since monitoring can halve that rate, if this project can halve the deterioration rate again, then 24 750 inpatients across the nation would not be worse off after treatment representing an annual saving of nearly \$19.2 million per annum and reduce the number of patients who fall into a cycle of admission and readmission. Further, although suicide occurs in less than one per cent of admissions, if this research is able to predict and then reduce the suicide rate by as little as 10 per cent, then 660 lives can be saved each year.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**LP100200507** Prof Fiona J Stanley, A/Prof Helen M Leonard, Prof Nicholas de Klerk, Dr Jianghong Li, Dr Natasha Nassar, Prof Stephen R Zubrick, A/Prof Catherine L Taylor, Mr Eddie Bartnik, Mr Patrick Walker, Ms Cheryl Gwilliam, Mr Ian Johnson, Mr Tim Marney, Mr Terry Murphy, Dr Karl O'Callaghan, Ms Sharyn O'Neill, Mr Grahame Searle, Dr Ronald Chalmers, Dr Melissa O'Donnell, Dr Amanda T Langridge, Ms Diana Rosman, Dr Peter T Flett

**Approved Project Title** Pathways, policies and prevention: better outcomes for western Australian children

2010	\$216,127.50
2011	\$469,252.00
2012	\$513,592.00
2013	\$485,130.50
2014	\$317,418.00
2015	\$92,755.00

APAI 4

APDI Dr Melissa O'Donnell

**Partner/Collaborating Organisation(s)**

Disability Services Commission WA, Government of Western Australia Department of Housing, WA Department for Child Protection, WA Department for Communities, WA Department of Corrective Services, WA Department of Education and Training , WA Department of Indigenous Affairs, WA Department of the Attorney General, WA Department of Treasury and Finance, WA Police, Western Australian Department of Health

**Administering Organisation** The University of Western Australia

**Project Summary**

This project will provide new knowledge to inform and enable future policy and prevention strategies for improving child health and wellbeing. The collaboration between researchers and policy makers across 11 government departments will deliver a new evidence base for understanding child, family and community level factors that increase or reduce vulnerability to poor outcomes through the utilisation of cross-sectoral population data. This collaboration will inform whole of government intervention and prevention strategies to improve outcomes, as well as evaluate and monitor existing initiatives. This project will provide a model for population-based research and policy development both nationally and internationally.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1201          ARCHITECTURE**

**Queensland University of Technology**

**LP100200849**          Prof Robin M Drogemuller, Prof Kerry A Raymond

**Approved Project Title**          **Extending building information models (BIM) for specifications and cost planning**

2010	\$45,346.00
2011	\$90,235.00
2012	\$93,277.00
2013	\$48,388.00
2014	\$ .00
2015	\$ .00

APAI                                  1

**Partner/Collaborating Organisation(s)**

NATSPEC, Project Services

**Administering Organisation**          Queensland University of Technology

**Project Summary**

The recognition in the 1990's that inefficiencies in the design, construction and maintenance of buildings and infrastructure were costing up to 30 per cent of the total constructed cost of buildings led to a push for the more efficient use of information. The major change in the industry to date has been the introduction of Building Information Models (BIM). Uptake has now reached the tipping point where it is becoming pervasive. This project examines methods of adding value to existing BIM information which will allow the industry and clients to achieve a higher level of efficiency than can be gained just through substitution of BIM for current processes.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**The University of Queensland**

**LP100200107** Dr Naomi Stead, A/Prof Julie L Willis, Prof Sandra Kaji-O'Grady, A/Prof Gillian M Whitehouse, Prof Susan Savage, Ms Justine Clark, Dr Karen L Burns, Dr Amanda M Roan

**Approved Project Title** **Equity and diversity in the Australian architecture profession: women, work, and leadership**

2010	\$25,750.00
2011	\$61,750.00
2012	\$70,500.00
2013	\$34,500.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Architecture Media, Bates Smart Architects, BVN Architecture, PTW Architects, The Australian Institute of Architects

**Administering Organisation** The University of Queensland

**Project Summary**

This project will develop strategies to maximize women's participation in architecture, improving human resource practices within architectural firms and developing a diversity policy for the national professional association. Together these outcomes will increase women's representation within architecture, and help all architects achieve a greater work life balance with its concomitant effects of improving individual health, wellbeing and national productivity. Increasing the visibility and recognition of female architects will directly support innovative practice in architecture, which will advantage all attempts to create socially and ecologically sustainable built environments in Australia.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1205 URBAN AND REGIONAL PLANNING**

**Curtin University of Technology**

**LP100200693** Prof Tharam S Dillon, Dr Aleksandar Talevski, Dr Chen Wu, Mr Stephen Wallis

**Approved Project Title** **Intelligent real time multi-site controller for conserving energy in remote areas and in the resource industry**

2010	\$50,000.00
2011	\$100,000.00
2012	\$100,000.00
2013	\$50,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Fleetwood Corporation Limited

**Administering Organisation** Curtin University of Technology

**Project Summary**

This project researches the issues in achieving demand response for electricity usage in remote regions of Australia through the use of smart meters and web of things framework to provide ubiquitous monitoring and control of devices, intelligent control systems to dynamically change energy usage patterns and community-based social network architecture. This will lead to several benefits, such as (a) the strengthening of Australian business competitiveness in these regions by reducing energy costs and increasing energy trading, (b) reduction in ecological impact through smarter utilisation of energy and shifting to renewable sources, (c) encourage local generation and distribution of electricity where communities can trade excess energy.

**Monash University**

**LP100200197** A/Prof Geoffrey Rose, Prof Roderick J McClure, A/Prof Marco Pierini, Ms Jill Earnshaw, Mr Peter Daly, Mr Rhys Griffiths, Ms Samantha Cockfield, Ms Fiona Calvert

**Approved Project Title** **A systemic model to underpin enhanced management of powered-two-wheelers as part of a safe, sustainable transport system**

2010	\$61,038.00
2011	\$131,976.50
2012	\$112,665.00
2013	\$41,726.50
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Department of Transport, Victoria, FEDERAL CHAMBER OF AUTOMOTIVE INDUSTRIES, RACV, Roads Corporation, Transport Accident Commission (TAC)

**Administering Organisation** Monash University

**Project Summary**

Better management of motor scooters and motorbikes (Powered-2-wheelers or P2W) will deliver economic, environmental and social benefits. Road crashes involving P2Ws cost the Australian community in excess of \$2 billion per annum. There are also the broader social impacts for crash victims, their families and communities from the potential long-term pain, grief and debilitating injuries. This project will provide insight into how the incidence and costs associated with P2W crashes can be reduced. In addition, congestion costs in each of Australia's capital cities are on the order of \$3 billion per annum and there is potential for P2W research to reduce not only that cost but also the broader environmental impacts of travel by providing an alternative to cars.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Melbourne

**LP100200590** Prof Kim G Dovey, Prof Shane F Murray, Prof Rob Adams, Prof Geoffrey London

**Approved Project Title** Intensifying places: transit-oriented urban design for resilient Australian cities

2010	\$70,000.00
2011	\$125,000.00
2012	\$134,000.00
2013	\$79,000.00
2014	\$.00
2015	\$.00

### Partner/Collaborating Organisation(s)

Aspect Studios, City of Darebin, City of Melbourne, David Lock Associates (Australia) Pty Ltd, Department of Planning and Community Development Victoria, McGauran Giannini Soon Pty Ltd, Moreland City Council , Office of the Victorian Government Architect

**Administering Organisation** The University of Melbourne

### Project Summary

The population of Australian cities is rising sharply at precisely the time we also need to achieve dramatic reductions in carbon emissions. While there is debate about the degree to which we can extend urban growth boundaries, there is no doubt that intensification in activity centres and along transit lines will be realised in the near and medium future. This is both a threat to established suburban ways of life and a wonderful opportunity to enhance them. What kinds of new urban places will be created and how can design quality be managed to ensure the beauty, amenity, pedestrian accessibility, sociability and public transport efficiency of our cities?

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1299 OTHER BUILT ENVIRONMENT AND DESIGN**

**The University of Melbourne**

**LP100200240** Dr Lu Aye, Dr Tuan D Ngo, Dr Robert H Crawford, Prof Priyan Mendis

**Approved Project Title** **Prefabricated reusable building modules: reducing building life cycle environmental impacts**

2010	\$30,852.00
2011	\$63,898.50
2012	\$69,304.50
2013	\$36,258.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

FENDER KATSALIDIS ARCHITECTS

**Administering Organisation** The University of Melbourne

**Project Summary**

The outcomes of this project will enhance Australia's ability to provide globally competitive next generation building construction solutions. It will also help to not only ensure that Australian industry is at the forefront of best-practice environmental innovation but also support industry to develop and expand export markets, providing significant economic benefits. The outcomes of this project will be valuable to the construction industry to make implementation of ecologically sustainable design more rigorous. Strategies for improving the environmental performance of construction, particularly through prefabrication of durable building components will be able to be better facilitated by the research undertaken in this project.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1301 EDUCATION SYSTEMS**

**La Trobe University**

**LP100200179** Prof Vaughan R Prain, A/Prof Bruce G Waldrip, A/Prof Jeffrey P Dorman, A/Prof Mary B Keeffe, Dr Craig G Deed, Dr Peter J Cox, Dr Zali K Yager, Ms Debra J Edwards, Ms Cathleen B Farrelly

**Approved Project Title** **Improving regional secondary students' learning and well-being**

2010	\$65,727.00
2011	\$133,216.00
2012	\$136,811.00
2013	\$69,322.00
2014	\$.00
2015	\$.00

APAI 2

**Partner/Collaborating Organisation(s)**

Department of Education and Early Childhood Development Loddon Mallee Region , Drouin Secondary College, Warragul Regional College

**Administering Organisation** La Trobe University

**Project Summary**

Given the academic under-performance and lower life opportunities of Australian regional and rural students compared to their metropolitan counterparts, this research has the potential to make a significant social, cultural and economic contribution to the community. This research will be useful in developing an evidence-based framework to guide policy and practice in implementing an effective systematic approach to regional education and, where appropriate, other contexts. The research's economic benefit centres on gains for individuals, local communities, and the nation in enhancing regional students' academic achievements, sense of well-being and aspirations; leading to more productive citizens.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### Queensland University of Technology

**LP100200052** A/Prof Cushla Kapitzke, Dr Stephen J Hay, A/Prof James J Watters, Prof Hitendra K Pillay, Prof Neil Dempster, Dr John F Dungan

**Approved Project Title** Industry-school partnerships: a strategy to enhance education and training opportunities

2010	\$56,511.50
2011	\$116,212.00
2012	\$118,285.50
2013	\$58,585.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Education Queensland, Independent Schools Queensland

**Administering Organisation** Queensland University of Technology

#### Project Summary

Australian and state governments have adopted public-private partnerships as a means of providing education systems that meet the long-term knowledge and skill requirements for key industries of the Australian economy. Identifying the elements of industry-school partnerships that enhance educational and economic outcomes will connect students in urban and regional communities to knowledge networks, access to which is essential for a competitive Australian economy. To support this large investment and innovation, policy recommendations and theoretically informed partnership models resulting from the project will contribute to national economic productivity by enhancing the growth and sustainability of communities hosting partnerships.

### The University of Melbourne

**LP100200162** Prof Jack P Keating, A/Prof John Polesel, Dr Elizabeth (Leesa) M Wheelahan, Dr Gavin F Moodie, Mr David C Howes, Ms Margaret A Mackenzie, Mr Guy Valentine, Ms Janice L Chee, Mr Paul Herschell

**Approved Project Title** Senior secondary certification: meeting the national agenda?

2010	\$63,959.00
2011	\$115,366.50
2012	\$113,045.00
2013	\$61,637.50
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Queensland Studies Authority, Victorian Curriculum and Assessment Authority

**Administering Organisation** The University of Melbourne

#### Project Summary

Senior secondary certificates are subject to multiple sets of national demands that create the risk of weakening their important historical roles and undermining stakeholder support. This project will provide a deeper understanding of the nature of the tensions that need to be balanced within the design and management of the certificates and provide information for future design options in the context of national developments in secondary and tertiary education. The project has the potential to assist state and territory agencies that are responsible for senior secondary curriculum and certification in making their contributions toward the national goals and targets for education participation set by the Australian Government.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Queensland

**LP100200841** Prof Robert L Lingard, Prof Marie T Brennan, Dr Lew Zipin, Prof Peter D Renshaw, Prof Martin D Mills

**Approved Project Title** Pursuing equity in high poverty rural schools: improving learning through rich accountabilities

2010	\$49,000.00
2011	\$99,000.00
2012	\$116,500.00
2013	\$94,000.00
2014	\$27,500.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Queensland Department of Education and Training

**Administering Organisation** The University of Queensland

#### Project Summary

Poor performance of students in schools located in high poverty communities is a pressing educational problem for Australia, with educational disadvantage in poor rural communities in particular demanding amelioration. The evidence suggests the equity and quality of schooling outcomes are centrally important to the nation's economic future, the strength of Australian democracy, social inclusion and a unified nation. In strengthening policy and practice knowledge about educative usage of performance data and the development of rich forms of accountability, the research will advance the academic literature and provide an evidence base for success of the national partnership on low socio-economic status schools.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1302 CURRICULUM AND PEDAGOGY**

**Queensland University of Technology**

**LP100200397** Prof Huizhong Shen, Dr Chun Hu, Dr Margaret Kettle, Prof Robyn A Ewing, Prof Allan Luke

**Approved Project Title** **Images, perceptions and resources: enhancing Australia's role in China's English language education**

2010	\$27,500.00
2011	\$55,000.00
2012	\$68,500.00
2013	\$41,000.00
2014	\$ .00
2015	\$ .00

APAI 1

**Partner/Collaborating Organisation(s)**

Foreign Language Teaching and Research Press, Fudan University

**Administering Organisation** Queensland University of Technology

**Project Summary**

Education, being the third largest export industry, plays an extremely important role in Australia's engagement with the Asia region. Chinese students are by far the largest single group of overseas students studying in Australia. However, there is little evidence regarding Australia's presence in the English language market in China, nor of how Chinese language learning businesses draw on Australian sources and resources. The association with two premier Chinese language learning and publishing houses through this joint research project will promote Australian content for language learners in China and provide information for Australian language resource developers focusing on the Chinese market.

**The University of Queensland**

**LP100200215** A/Prof Christina E van Kraayenoord, Prof Robyn M Gillies, Dr Eileen M Honan, A/Prof Karen B Moni, Prof Mark C Western, Prof David J Brereton

**Approved Project Title** **Supporting schools and teachers to improve students' reading achievement in rural communities**

2010	\$58,154.00
2011	\$118,002.00
2012	\$132,418.00
2013	\$116,520.50
2014	\$43,950.50
2015	\$ .00

**Partner/Collaborating Organisation(s)**

BHP Billiton Mitsubishi Alliance, Education Queensland

**Administering Organisation** The University of Queensland

**Project Summary**

This project focuses on improving student reading achievement in rural and mining communities and developing school-community links around reading. The project will deliver lasting benefits that include: raising the literacy standards of Australia's students and its future citizens and employees; maintaining a knowledgeable and effective teaching workforce in rural and mining communities; developing a sustainable professional learning program that can be used in education systems nationally and internationally; providing empirical data on the efficacy of strategies for reading instruction and intervention; and creating reading-related connections among schools, communities and mining companies that are positive and empowering.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1303 SPECIALIST STUDIES IN EDUCATION**

**La Trobe University**

**LP100200376** Prof Ramon Lewis, Dr Philip J Riley, Dr Andrea Gallant

**Approved Project Title** Improved student outcomes through positive classroom management

2010	\$34,449.00
2011	\$67,430.00
2012	\$66,826.50
2013	\$33,845.50
2014	\$ .00
2015	\$ .00

APAI 1

**Partner/Collaborating Organisation(s)**

Department of Education and Early Childhood Development (Northern Metropolitan Region)

**Administering Organisation** La Trobe University

**Project Summary**

The return on national investment in improving teacher quality is high. Research shows that teacher classroom practice overwhelmingly outweighs student background factors, as well as class size, spending levels and teacher salaries in explaining variation in student achievement. Developing teachers' skills and a strong sense of efficacy in classroom management reduces both teacher and student stress and student distraction. This makes a substantial contribution to improving academic outcomes for students, reducing rates of drop-out and exclusion, and reduces the cost to the nation of a high rate of attrition from the teaching profession. Findings will have implications for achieving sustainable change in professional practice more broadly.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Queensland

**LP100200222** Dr Shelley L Dole, Prof Merrilyn E Goos, Dr Mia O'Brien, Mr Geoffrey J Hilton, Mrs Annette I Hilton

**Approved Project Title** **Enhancing proportional reasoning, a fundamental but elusive cornerstone of numeracy, through educational technology applications**

2010	\$50,000.00
2011	\$90,000.00
2012	\$95,000.00
2013	\$55,000.00
2014	\$.00
2015	\$.00

APAI\_IT 1

#### **Partner/Collaborating Organisation(s)**

Education Queensland, SA Department of Education and Children's Services

**Administering Organisation** The University of Queensland

#### **Project Summary**

This project targets numeracy; a national education priority and global measure of education quality. This project will fill an identified research gap about the specific mathematics content to support rich numeracy practices, thus enhancing the professional capacity of teachers of all disciplines to attain this national goal. High numeracy increases work and life choices, strengthening the social and economic fabric and global competitiveness of Australian society. High numeracy supports access to science, technology, engineering and mathematics; areas in which current enrolments are in decline. This project will define the essence of numeracy for the 21st century, support evidence-based policy decisions and influence classroom practice.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**University of South Australia**

**LP100200499** Prof Marie T Brennan, Prof Alan Reid, Dr Faye McCallum, A/Prof Michele A Simons, Ms Helen Strickland, Ms Kathy McEvoy, Ms Karen L Grigg

**Approved Project Title** **Renewing the teaching profession in regional areas through community partnerships**

2010	\$26,042.50
2011	\$52,147.00
2012	\$56,192.00
2013	\$30,087.50
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Catholic Education Office Port Pirie, City of Mt Gambier, Eyre and Western Regional Office, Limestone Coast District Education, Limestone Coast Regional Development Board , SA Department of Education and Children's Services, Tenison Woods College

**Administering Organisation** University of South Australia

**Project Summary**

Schools are at the heart of community, social and economic regeneration in regional areas but teacher shortages and high turnover put quality of learning at risk. Improving teacher quality, attracting new teachers and retaining more experienced teachers will expand learning opportunities for young people in rural and remote areas, and make the region attractive to other workers recruited to bring their families to the area - for mining, industry, service or professional employment. This partnership study will enable policy makers, employers, country community groups and teacher education faculties to be more strategic in working together in providing necessary teaching staff; with potential implications for other professional groups.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1399 OTHER EDUCATION**

**University of Technology, Sydney**

**LP100200435** Prof Nicky Solomon, Prof Alison Lee, A/Prof Toni J Robertson, Dr Roslyn Sorensen, Prof Patrick Carmichael, Prof Jill Thistlethwaite, A/Prof Janet Anderson

**Approved Project Title** **Remaking practices: learning to meet the challenge of practice change in primary health care**

2010	\$30,000.00
2011	\$60,000.00
2012	\$60,000.00
2013	\$30,000.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

NSW Health

**Administering Organisation** University of Technology, Sydney

**Project Summary**

The improvement of primary health care delivery is an urgent national priority. This research will address the current lack of understanding of the new kinds of professional practices that are required to reshape primary health care in Australia. By focusing on the active role of learning and technology in the new practices, this research will provide theoretical and practical resources that will contribute to the achievement of professional practices that are multidisciplinary, integrated and patient-responsive. The outcomes of this research will benefit health service providers, health practitioners, patients and communities as well as policy makers engaged in the redesign of healthcare service delivery and health systems.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1402 APPLIED ECONOMICS**

**Charles Darwin University**

**LP100200531** Prof Romy Greiner, Prof Owen G Stanley

**Approved Project Title** **Estimating the potential supply of environmental services by landholders**

2010	\$13,334.50
2011	\$26,669.00
2012	\$26,669.00
2013	\$13,334.50
2014	\$ .00
2015	\$ .00

APAI 1

**Partner/Collaborating Organisation(s)**

Northern Territory Cattlemen's Association, NT Department of Business and Employment

**Administering Organisation** Charles Darwin University

**Project Summary**

Wilderness, natural habitats, biodiversity and other aspects of natural capital and their associated ecosystem services are in decline. Increasing scarcity is driving a surge in interest in these services and their value. It potentially provides opportunities for landholders to be generating income from environmental services provision, and lessens dependency on livestock, crop and fibre production. But how realistic are these prospects? A critical aspect of potential markets for environmental services is their supply. This project examines the supply side of environmental services by exploring determinants of ability and willingness of landholders to provide these services.

**The Australian National University**

**LP100200463** Prof Andrew K Leigh, Dr Shane A Brittle

**Approved Project Title** **Estimating the impact of fiscal stimulus on household expenditure**

2010	\$40,425.00
2011	\$40,425.00
2012	\$ .00
2013	\$ .00
2014	\$ .00
2015	\$ .00

**Partner/Collaborating Organisation(s)**

Commonwealth Department of Treasury

**Administering Organisation** The Australian National University

**Project Summary**

This project aims to measure the impact on household expenditure of unexpected government bonus payments. Precise measures of this parameter can help improve fiscal policy in Australia and overseas, whilst giving researchers a more precise understanding of how households react to unexpected increases in disposable income. This research will also make a methodological contribution, since we will be using a research methodology not previously implemented in Australia, which is to exploit the random timing of payments across households, combined with a unique household-level panel dataset on weekly expenditure. The project will compare results using this approach with results from other strategies, such as surveys and time series analysis.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of New South Wales

**LP100200165** Dr Georgina M Chambers, A/Prof Elizabeth A Sullivan, A/Prof Peter J Illingworth  
**Approved Project Title** **Economic impact and policy implications of assisted reproductive technologies in Australia**

2010	\$52,500.00
2011	\$100,000.00
2012	\$105,000.00
2013	\$57,500.00
2014	\$ .00
2015	\$ .00

APDI Dr Georgina M Chambers

#### Partner/Collaborating Organisation(s)

IVFAustralia Pty Ltd, Melbourne IVF Pty Ltd, Queensland Fertility Group

**Administering Organisation** The University of New South Wales

#### Project Summary

Assisted reproductive technology (ART) is now a large scale economic activity in Australia, provided almost exclusively by private clinics. The outcome of ART programs, involving the birth of one in 30 children, has a profound effect on the health of the nation. Policy and funding frameworks influence how ART is practiced and the subsequent health outcomes of ART children, yet there is a lack of evidence to guide government and providers about effective, equitable and safe approaches to funding ART. This research will address that need, thereby fostering a healthy start to life and preventative healthcare; supporting the National Research Priority, promoting and maintaining good health, for ART children, their families and the community.

### The University of Sydney

**LP100200252** Dr Tihomir Ancev, Asst Prof Rimvydas Baltaduonis  
**Approved Project Title** **Emissions trading and the design and operation of Australia's energy markets**

2010	\$13,334.50
2011	\$26,669.00
2012	\$26,669.00
2013	\$13,334.50
2014	\$ .00
2015	\$ .00

APAI 1

#### Partner/Collaborating Organisation(s)

Australian Financial Markets Association

**Administering Organisation** The University of Sydney

#### Project Summary

Past research has applied the methods of experimental economics to focus on capacity markets, futures markets, and demand side response management options for electricity markets in the United States of America. This project will examine research priorities for Australia's energy markets. These include market impacts on investment decision-making, trade in Renewable Energy Certificates, and the consequences of carbon emissions trading for energy market outcomes. Australia's electricity markets are primarily financial markets and new policy developments present both risks and opportunities. By designing and testing markets, experiments will be used to test market performance and for unforeseen consequences of new market policies.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1503 BUSINESS AND MANAGEMENT**

**The University of Melbourne**

**LP100200261** A/Prof Bradley N Potter, A/Prof Monica Keneley, Prof Colin B Ferguson, Mr Phillip E Cobbin, Prof Brian West, Dr Mark D Wilson

**Approved Project Title** **An approach to preserving accounting and business archival materials: enhancing accessibility to inform research and practice**

2010	\$35,000.00
2011	\$65,000.00
2012	\$70,000.00
2013	\$40,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

CPA Australia, National Archives of Australia

**Administering Organisation** The University of Melbourne

**Project Summary**

CPA Australia is one of the oldest professional accounting associations in the world. Its archival records provide invaluable insights into the development of the profession and the business community it services. The preservation and management of this heritage will be of benefit not just to the profession but also in enhancing our understanding of the evolution of the corporate foundation of the economy. This project will involve the development of a framework for managing the archive and facilitating access through the use of digital technologies. The outcomes will contribute to preserving and understanding the nation's business history as well as facilitating integration with international accounting and business archives.

**LP100200389** A/Prof Damien J Power, Dr Prakash J Singh, Dr Vikram Bhakoo, Prof Danny Samson

**Approved Project Title** **Factors influencing the adoption and diffusion of supply chain technology standards in Australia**

2010	\$55,000.00
2011	\$110,000.00
2012	\$55,000.00
2013	\$.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

GS1 Australia

**Administering Organisation** The University of Melbourne

**Project Summary**

This project seeks to enable more organisations to use technologies such as bar codes and radio-frequency identification (RFID) tags. Studies show that 3.5 per cent of sales are lost due to information inefficiencies, 30 per cent of inventory records have errors, and 60 per cent of all invoices have errors. These types of errors and losses can be reduced through use of these technologies because they enable more efficient and effective flow of goods and services. All four industry sectors we will study can benefit from these technologies: reduced errors and better service delivery in the healthcare sector; improved quality control and reduced transportation costs for primary producers; improved coordination and reduced transport related carbon emissions for automotive manufacturing and fast moving consumer goods sectors.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Western Australia

**LP100200874** Prof Tim W Mazzarol, Prof Geoffrey N Soutar, Prof Kadambot Siddique, Prof John Watson, Asst Prof Joanne N Sneddon, Mr Peter T Wells, Dr Elena A Mamouni Limnios

**Approved Project Title** **Sustainable cooperative enterprise: an investigation into the factors influencing the sustainability and competitiveness of cooperative enterprises**

2010	\$44,500.00
2011	\$89,000.00
2012	\$84,591.00
2013	\$40,091.00
2014	\$.00
2015	\$.00

APDI Dr Elena A Mamouni Limnios

#### **Partner/Collaborating Organisation(s)**

Capricorn Society Limited - Australia, CBH Group, Co-operatives WA

**Administering Organisation** The University of Western Australia

#### **Project Summary**

From a national perspective the top 100 Co-operative enterprises control a combined turnover of around \$20 billion and provide employment and economic benefits to many thousands of people across both regional and rural Australia. In Western Australia (WA) there are around 70 Co-operatives working across a wide range of industries including fishing, farming, retailing and services sectors. Despite their significance, there is relatively little research available on drivers of the Co-operative business model and what makes it both unique and competitive. This project will address these issues and assist Co-operatives WA to prepare for the introduction of new state legislation and provide research of benefit to Co-operatives at the national level.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1601 ANTHROPOLOGY**

**The University of Queensland**

**LP100200475** Prof Helen Ross, Dr Wolfram H Dressler, Dr Sylvie Shaw, Dr Helen Johnson, Dr David Rissik

**Approved Project Title** **Monitoring and evaluating Moreton Bay and its catchments as a socio-ecological system**

2010	\$42,998.50
2011	\$80,399.00
2012	\$81,894.50
2013	\$44,494.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

QLD Department of Environment and Resource Management, South East Queensland Healthy Waterways Partnership, South East Queensland Traditional Owners Alliance Ltd

**Administering Organisation** The University of Queensland

**Project Summary**

This project will identify how to include social and cultural analysis into protected area management arrangements, to enhance the protection of Moreton Bay Marine Park and other marine and land protected areas. It will integrate catchment with ocean, and social with biophysical sciences and economics towards a monitoring and evaluation framework that informs management by government, government-community partnerships and traditional owners. It will build capacity in linking catchment and marine areas, provide social analysis that is highly valuable to management and communications strategies, and combine Indigenous with non-Indigenous knowledge systems to highlight differing cultural values and ways of protecting waterways.

**Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group**

**1602 CRIMINOLOGY**

**Griffith University**

**LP100200469** A/Prof Anna L Stewart, Dr Troy J Allard, Dr Susan M Dennison, Prof Steve Kisely

**Approved Project Title** **Understanding the relationship between mental illness and offending: implications for crime prevention and the management of mentally ill offenders**

2010	\$24,970.50
2011	\$62,470.50
2012	\$86,500.00
2013	\$49,000.00
2014	\$ .00
2015	\$ .00

APAI 1

**Partner/Collaborating Organisation(s)**

Department of Justice and Attorney-General, Office of Economic and Statistical Research, QLD Department of Communities, QLD Department of Premier and Cabinet, Queensland Health, Queensland Police Service

**Administering Organisation** Griffith University

**Project Summary**

The criminal justice system struggles to cope with the challenge of mentally ill offenders. Yet unfortunately increasing numbers of mentally ill people are coming into contact with police, the courts and correctional institutions. Using a life-course criminological perspective, this project aims to understand the links between mental illness and offending. Such an understanding will provide the criminal justice system with strategies for managing and treating mentally ill offenders. More importantly, such an understanding can be used to intervene in circumstances that result in mentally ill people offending, improving their well-being and increasing community safety.

**LP100200229** Prof Richard K Wortley, Dr John G Rynne, Prof Cindy Shannon, Em/Prof Richard W Harding, Prof Paul Mazerolle, Prof Alison Liebling, Dr Hilde Tubex

**Approved Project Title** **The quality of prisons for Indigenous persons in custody: determining how prison impacts on culture, community life and recidivism**

2010	\$34,000.00
2011	\$62,977.50
2012	\$52,475.50
2013	\$23,498.00
2014	\$ .00
2015	\$ .00

APAI 1

**Partner/Collaborating Organisation(s)**

Northern Territory Department of Corrective Services, West Australian Department of Correctional Services

**Administering Organisation** Griffith University

**Project Summary**

International experience with Indigenous prisoners suggests prison need not be the void it presently is for too many traditional Aborigines and Torres Strait Islanders. Through working in partnership with prisoners from primarily remote communities and two State jurisdictions, a nationally applicable measure of Indigenous prison quality will be developed. For the first time, this research will provide insight into how Australian Indigenous culture and spirituality relates to prison quality and how prison can be more effectively applied in crime reduction. The ultimate national benefit is a contribution to better health and safety in remote Indigenous communities through custodial reform and reduced criminal justice costs through lower recidivism.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**Queensland University of Technology**

**LP100200393** Dr Belinda J Carpenter, Dr Gordon Tait, Mr Michael A Barnes, Mr John Drayton, A/Prof Charles P Naylor, Mr Ian A Thompson

**Approved Project Title** **Managing family objection to autopsy: a case study of the Queensland coronial system**

2010	\$20,000.00
2011	\$45,000.00
2012	\$50,000.00
2013	\$25,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Queensland Health Scientific Services, Queensland Police Service, State Coroners Office

**Administering Organisation** Queensland University of Technology

**Project Summary**

Exploring how coroners, police, counsellors, and pathologists engage with families after the shock of a sudden or violent death, and the resulting development of an e-resource, enables a consistent and transparent whole system approach to be established. The expected benefits for the Coronial system will include: a decrease in unnecessary autopsies, a flow on to minimising staffing shortages, and an overall decrease in the cost of a death investigation. The benefits to the community will include: enhanced police relations with families, including those from minority religions and cultures, more informed and appropriate decision making by coroners, less invasive autopsies by pathologists, and more focused intervention by counsellors.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1605 POLICY AND ADMINISTRATION**

**Curtin University of Technology**

**LP100200803** Prof Janette F Hartz-Karp, Prof Mark Balnaves, Prof Dora V Marinova

**Approved Project Title** **Transitions to a Sustainable City, Geraldton WA: an applied study into co-creating sustainability through civic deliberation and social media**

2010	\$37,500.00
2011	\$75,000.00
2012	\$47,500.00
2013	\$10,000.00
2014	\$ .00
2015	\$ .00

**Partner/Collaborating Organisation(s)**

City of Geraldton-Greenough

**Administering Organisation** Curtin University of Technology

**Project Summary**

Creating sustainable cities and better linking citizens with government under a National Broadband Network future are national priorities. This project integrates these two priorities by pioneering and researching local cooperative governance through deliberative democracy as a means to create a sustainable city. The project (i) collaboratively designs, implements, and assesses inclusive deliberations; (ii) develops an innovative social media platform using supercomputer facilities that can assist informed public deliberation, translating scientific findings into easy to understand formats; (iii) researches the transformative effects of this deliberation on individual, community and Geraldton City carbon footprints.

**The Australian National University**

**LP100200203** Prof Kerry R Jacobs, A/Prof Habib Mahama, Dr William G Sanders, Ms Katherine G Curchin

**Approved Project Title** **The practice of accountability in Australian Indigenous corporations**

2010	\$40,000.00
2011	\$80,000.00
2012	\$80,000.00
2013	\$40,000.00
2014	\$ .00
2015	\$ .00

APAI 1

**Partner/Collaborating Organisation(s)**

The Office of the Registrar of Indigenous Corporations

**Administering Organisation** The Australian National University

**Project Summary**

As Australian Indigenous corporations are fundamental to economic participation and social provision in the nation's Indigenous communities this project will contribute to increasing and sustaining social and economic participation in these communities. While there is a new Act governing Australian Indigenous corporations there has been little work to evaluate the implementation and implications of the Act. Therefore this project is timely and important. The fundamental question is how these organisations can both serve the needs of their local communities and meet broader accountability obligations expected of them. This issue is fundamental to the delivery of state funded services and benefits to Australian Aboriginal and Torres Strait Islander communities.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**The University of New South Wales**

**LP100200297** Prof Deborah J Brennan, Dr Zoe H Morrison, Ms Anne C Hampshire, Prof Fiona Williams, Dr Jennifer Skattebol

**Approved Project Title** **Families at the centre: negotiating Australia's mixed market in early education and care**

2010	\$48,887.00
2011	\$125,609.00
2012	\$130,812.00
2013	\$54,090.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Brotherhood of St Laurence, Early Childhood Australia inc, Lady Gowrie Child Centre Inc Adelaide, Lady Gowrie Child Centre Sydney, Mission Australia, The Gowrie (Qld) Inc, University of Leeds

**Administering Organisation** The University of New South Wales

**Project Summary**

Despite a surge of policy reforms and Australian government investment in early childhood education and care (ECEC), little is known in Australia about how local ECEC markets function and how low-income families make decisions about the use or non-use of child care services. This project will provide evidence for policy-making and service provision that aims to encourage child care use by low-income families. The direct involvement of child care providers in the research will strengthen its relevance and impact. This research will place Australia at the forefront of international research on local child care markets, and resulting improvements in ECEC policy and services will generate substantial economic and social benefits.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1606 POLITICAL SCIENCE**

**Griffith University**

**LP100200312** Prof John Kane, Prof Haig Patapan, Ms Alexandra K Duchen, Mr Fergus E Hanson, Prof Ian Shapiro

**Approved Project Title** **Political leadership in international affairs**

2010	\$35,000.00
2011	\$75,000.00
2012	\$70,000.00
2013	\$30,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Lowy Institute for International Policy, Yale University

**Administering Organisation** Griffith University

**Project Summary**

This program of research will make a contribution to judging our place in the world by assisting in our understanding of the importance of leadership in international relations; specifically in the various international leaders and persons of influence with whom Australia has of necessity to deal. The examination of regional institutional leadership will provide insights into the importance of international organisations and their potential to augment or limit state leadership. Finally, the mapping of the sites of leadership in developing states will allow Australia to see how to best invest in aid and regional security through programs that focus on education as a foundation for future leadership.

**The University of New South Wales**

**LP100200216** A/Prof Sarah Maddison, A/Prof Katharine P Gelber, Prof Patrick Dodson, Mr Adam Kahane

**Approved Project Title** **Democratic dialogue and capabilities: new opportunities in post-reconciliation era Australia**

2010	\$51,000.00
2011	\$101,000.00
2012	\$120,000.00
2013	\$70,000.00
2014	\$.00
2015	\$.00

APAI 2

**Partner/Collaborating Organisation(s)**

Benevolent Society, Reos Partners

**Administering Organisation** The University of New South Wales

**Project Summary**

In conflict and post-conflict societies around the world, democratic dialogue has proven to be an important element in processes designed to facilitate social change and create a more just and inclusive society. This project will make a significant theoretical and methodological contribution to national and international understanding of methods for resolving longstanding intercultural conflicts. It aims to demonstrate the role that democratic dialogue can have in transforming the relationship between Indigenous and non-Indigenous Australians. It will test the hypothesis that the social and institutional change that is possible through dialogue will have capability-enhancing effects for Indigenous Australians.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1607 SOCIAL WORK**

**University of Canberra**

**LP100200026** Prof Laurie J Brown, Dr Justine M McNamara

**Approved Project Title** **Modelling the lifetime social and economic impacts of fragile x syndrome and the benefits of early diagnosis and intervention**

2010	\$13,334.50
2011	\$26,669.00
2012	\$26,669.00
2013	\$13,334.50
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

The Fragile X Association of Australia Inc

**Administering Organisation** University of Canberra

**Project Summary**

This project falls within the National Research Priority, promoting and maintaining good health, through a healthy start to life and strengthening of social and economic outcomes over the course of life. Fragile X is a group of associated genetic disorders affecting individuals across generations. It is the most common identifiable cause of inherited intellectual disability. About 1 in 4000 males and 1 in 8000 females have Fragile X, but up to 1 in 250 females are carriers. For the first time in Australia, this study will reveal the social and economic impacts on the individual, on their family members who are often the lifelong carers, and on the Australian community, and show how these impacts may be minimised through early intervention.



## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### RMIT University

**LP100200497** Asst Prof Christopher W Chamberlain, Dr Guy A Johnson

**Approved Project Title** **Breaking the cycle: the role of housing and support in resolving chronic homelessness**

2010	\$13,334.50
2011	\$26,669.00
2012	\$26,669.00
2013	\$13,334.50
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Sacred Heart Mission

**Administering Organisation** RMIT University

#### Project Summary

The Australian Government aims to reduce homelessness by half by 2020 and to offer supported accommodation to all rough sleepers by 2020. Chronically homeless people are often part of an impoverished underclass, largely excluded from the labour force and other mainstream institutions. This research will lead to improvements in service delivery and program designs and will link them to the wider areas of housing policy and social inclusion. The findings will directly contribute to the National Research Priority, promoting and maintaining good health and the priority goal strengthening Australia's social and economic fabric.

### Swinburne University of Technology

**LP100200160** Prof Michael D Gilding, Prof Russell Kenley, Dr Richard H Shrapnel

**Approved Project Title** **Family business and succession planning: dynamics, barriers and strategies**

2010	\$43,500.00
2011	\$85,500.00
2012	\$83,500.00
2013	\$41,500.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Pitcher Partners Advisors Pty Ltd

**Administering Organisation** Swinburne University of Technology

#### Project Summary

This research will generate better strategies, protocols and policies for family business succession planning, tailored to the Australian context. Family businesses constitute about 70-80 per cent of Australian businesses, and \$4.5 trillion in business value. It is estimated that \$3.5 trillion of business value will change hands in the next decade as the post-war generation of business founders moves on. Yet surveys routinely show that family businesses indefinitely defer succession planning, placing businesses and their stakeholders at risk of acrimonious conflict and business failure. This research will contribute towards the National Research Priority goals strengthening Australia's social and economic fabric and ageing well, ageing productively.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Queensland

**LP100200159** Dr Catherine A Pattenden, Dr Polly H Parker, Prof Janeen H Baxter, Prof David J Brereton, Prof Kathy E Kram

**Approved Project Title** **Women in non-traditional careers: a longitudinal study of female professionals in the mining and resources industries**

2010	\$40,000.00
2011	\$70,000.00
2012	\$70,000.00
2013	\$40,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

BHP Billiton Ltd, Minerals Council of Australia, Queensland Resources Council, Rio Tinto, The Australasian Institute of Mining and Metallurgy, Xstrata Copper

**Administering Organisation** The University of Queensland

#### Project Summary

This project is in line with National Research Priority, strengthening Australia's social and economic fabric, which identifies the importance of research on workforce participation. The main aim of this research is to increase the attraction, participation, development and most importantly, retention of qualified female technical staff in the Australian resource industry. Analysis of project outputs will directly inform policies and practices to redress the significant skill shortages in the industry. Furthermore enhancing workplace diversity is necessary to create effective and innovative workplaces that reflect the diversity of the broader Australian society.

### University of South Australia

**LP100200524** Prof Barbara A Pocock, Dr Natalie J Skinner

**Approved Project Title** **Work, life and sustainable living: how work, household and community life interact to affect environmental behaviours and outcomes**

2010	\$40,000.00
2011	\$80,000.00
2012	\$80,000.00
2013	\$40,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Community and Public Sector Union, Land Management Corporation, State Public Services Federation, Zero Waste SA

**Administering Organisation** University of South Australia

#### Project Summary

The project addresses the research priority of an environmentally sustainable Australia. It examines how the circumstances and interaction of work, home and community affect capacities to reduce negative environmental impacts especially workplace and household transport, waste, energy and water use practices. The project brings the changing configuration of work to the fore, addressing a gap in current research. It examines the implications for environmental change of the temporal and spatial organisation of 'work-life', including analysis of socio-economic and gender differences, informing practice and theory about how workers, workplaces and households can change for the better, in the interests of a sustainable, socially inclusive society.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### University of Western Sydney

**LP100200087** A/Prof Michael B Darcy, A/Prof Hart K Cohen, Dr Kathy D Arthurson, Dr Philip Nyden, Mr Jonathan A Campton

**Approved** Residents' voices: advantage, disadvantage, community and place

#### Project Title

2010	\$13,334.50
2011	\$27,804.00
2012	\$28,939.00
2013	\$14,469.50
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Center for Urban Research and Learning, St Vincent de Paul Society National Council of Australia Inc, Tenants union of NSW Co-operative Ltd

**Administering Organisation** University of Western Sydney

#### Project Summary

Community renewal and redevelopment of concentrated public housing areas represents a significant public investment aimed at improving the life chances of residents, yet the way in which place factors influence social outcomes is not well understood. This research will enhance the potential for successful outcomes by creating opportunities for residents to develop and express their own knowledge and understanding of the links between place and disadvantage, in an international context. The emergence of a theorised, contextualised and well articulated set of explanations about poverty and place from the tenant perspective will also improve public understanding and reduce the social division and stigma currently associated with public housing.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1699 OTHER STUDIES IN HUMAN SOCIETY**

**The Australian National University**

**LP100200359** Prof Nicolas Peterson, Prof Fred R Myers, Dr Peter B Thorley

**Approved Project Title** **Pintupi Dialogues: reconstructing memories of art, land and community through the visual record**

2010	\$32,500.00
2011	\$55,000.00
2012	\$52,500.00
2013	\$30,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

National Museum of Australia, Papunya Tula Artists Pty.Ltd.

**Administering Organisation** The Australian National University

**Project Summary**

The issue of Indigenous access to and control of material relating to their life and culture in museums and archives is alive and contentious. Indigenous people are increasingly seeking repatriation of such materials and/or to draw on them to create community histories and to assist in meeting the challenges modernisation poses for cultural reproduction. This project contributes directly to empowering Indigenous people in relation to the archive and in so doing contributing to the consolidation of positive relations between them and such institutions. This is a contribution to reconciliation. Archives are created for national benefit and this project will also value add to it through content enrichment.

**The University of New South Wales**

**LP100200096** A/Prof Eileen Baldry, Dr Leanne M Dowse, A/Prof Julian N Trollor, Prof Patrick Dodson, Dr Devon Indig

**Approved Project Title** **Indigenous Australians with mental health disorders and cognitive disabilities in the criminal justice system**

2010	\$64,500.00
2011	\$129,500.00
2012	\$127,500.00
2013	\$62,500.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Department of Ageing, Disability and Home Care, Justice Health, Legal Aid NSW, NSW Department of Housing

**Administering Organisation** The University of New South Wales

**Project Summary**

This project addresses the high over-representations of Indigenous persons with mental health and cognitive disabilities in Australian criminal justice systems. It will develop new understandings of the interactions amongst criminal justice, social, health, disability and other human services for these persons. Using an Indigenous methodology in this study will result in new information and understandings on Indigenous persons' experiences and perspectives. These will allow, for the first time, a critical analysis of system interactions and responses to complex needs for these persons. Outcomes will inform Indigenous theory and will be vital for developing new policy and practice to assist in protecting and promoting Indigenous wellbeing.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1701 PSYCHOLOGY**

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**Deakin University**

**LP100200176** Dr Patricia M Livingston, Prof Jo Salmon, Prof Kerry S Courneya, Dr Cadeyrn J Gaskin, Prof Mari A Botti, Dr Suzanne Broadbent, Prof Brigid C Kent

**Approved Project Title** **The efficacy of a referral and physical activity program for survivors of prostate cancer**

2010	\$44,266.50
2011	\$106,556.00
2012	\$112,149.00
2013	\$49,859.50
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Eastern Health, Epworth Healthcare, North Eastern Metropolitan Integrated Cancer Service , Peter MacCallum Cancer Institute, Prostate Cancer Foundation Australia , University of Alberta, YMCA Victoria

**Administering Organisation** Deakin University

**Project Summary**

Although survival rates of prostate cancer are approximately 83 per cent with earlier detection and improved treatment modalities, prostate cancer survivors are at an increased risk of dying from co-morbidities, which may be prevented or ameliorated through participation in physical activity. This project aims to establish an effective and sustainable referral and physical activity program to improve the health outcomes of prostate cancer survivors by utilising the influence of clinicians in their delivery of information to patients. This concept of a referral and physical activity program has the potential to translate across all cancer tumour streams to reduce the physiological and psychological burden associated with living with cancer.

**LP100200330** A/Prof David J Mellor, Prof Marita P McCabe

**Approved Project Title** **Wellbeing in the elderly: the role of respect**

2010	\$40,736.00
2011	\$82,064.00
2012	\$41,328.00
2013	\$.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Anglican Aged Care Services t/as Benetas

**Administering Organisation** Deakin University

**Project Summary**

Due to advances in health care, many more Australians are living to old age. It is important to ensure that older people, who comprise a significant proportion of the population, maintain high levels of quality of life (QOL). One of the factors that impact on QOL of older people is the respect afforded to them. This project will determine the issues related to respect for older people in Australia, and produce an evidence-based strategy for encouraging Australians to adopt more positive attitudes and behaviours related to increasing levels of respect for older people. It is expected that the project will reduce the level of ageism and enhance the status of older people in Australia.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

<b>LP100200755</b>	Prof John W Toumbourou, Prof George Patton, A/Prof Sheryl A Hemphill, A/Prof Eva R Leslie, Dr Peter J Kremer
<b>Approved Project Title</b>	<b>Strengthening community partnerships to promote adolescent school engagement and prevent problems such as alcohol misuse and violence</b>
2010	\$50,000.00
2011	\$100,000.00
2012	\$100,000.00
2013	\$62,500.00
2014	\$12,500.00
2015	\$.00

### Partner/Collaborating Organisation(s)

Communities That Care Ltd, Murdoch Childrens Research Institute

**Administering Organisation** Deakin University

### Project Summary

The project will reduce community rates of adolescent school non-attendance, adolescent alcohol misuse and antisocial behaviour. Adolescent school exclusion, alcohol use and antisocial behaviour are highly prevalent in Australia, and can be reduced using a variety of strategies that are coordinated at the school and community level. The project will decrease adolescent problems through community improvements in child and adolescent protective influences and reductions in risk influences. Furthermore, the project will equip communities with the capacity to learn how to identify and implement strategies to address the major influences that have the potential to reduce adolescent behaviour problems.

### Monash University

<b>LP100200387</b>	Dr Michael Lenne, Dr Paul M Salmon, Prof Thomas J Triggs, Prof Neville A Stanton
<b>Approved Project Title</b>	<b>Application of contemporary systems-based methods to reduce trauma at rail level crossings</b>
2010	\$65,000.00
2011	\$155,000.00
2012	\$175,000.00
2013	\$125,000.00
2014	\$40,000.00
2015	\$.00

APAI 1

### Partner/Collaborating Organisation(s)

Department of Transport, Victoria, Public Transport Safety Victoria, Roads Corporation, Transport Accident Commission (TAC), VicTrack Access, V/Line Passenger Pty Ltd

**Administering Organisation** Monash University

### Project Summary

Crashes at railway level crossings continue to cause significant trauma across Australia. Despite being a longstanding safety problem, the design and operation of level crossings has not changed considerably for decades. This research will provide an in-depth understanding of road user, environmental and infrastructure-related factors that influence safety and performance at rail level crossings. This will be used to develop a world-first model of the level crossing system that is needed to support the development of innovative countermeasures that will improve safety. Reductions in the levels of significant trauma at level crossings, and new public policy for level crossing upgrades, are the intended real-world outcomes.

**Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group**

**The University of New South Wales**

**LP100200362** Dr Thomas F Denson, Dr Lisa Zadro, A/Prof Michelle L Moulds

**Approved Project Title** **Psychological factors that lead to risky, aggressive, and impaired driving**

2010	\$60,000.00
2011	\$105,000.00
2012	\$90,000.00
2013	\$45,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Australian Associated Motor Insurers Ltd

**Administering Organisation** The University of New South Wales

**Project Summary**

Road accidents are a preventable cause of serious physical injury, psychological distress (e.g., PTSD) and in many cases, death. The annual financial cost of road accidents in Australia is estimated at over \$18 billion. This project will help to reduce the economic and social costs of road accidents by identifying when risky, aggressive, and impaired driving will occur and who will be most likely to commit these behaviours. The groundbreaking nature of this proposed project will ensure that Australia is at the forefront of driving safety research, thereby contributing to Australia's international profile for conducting influential and cutting-edge experimental research.

**LP100200574** Dr Julie Hatfield, Prof E J Kehoe, Prof Ann M Williamson, Dr Raymond F Job

**Approved Project Title** **Preventing injuries in crashes involving young drivers: development and evaluation of impulse control training**

2010	\$45,000.00
2011	\$90,000.00
2012	\$82,500.00
2013	\$37,500.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

NSW Centre for Road Safety, Youthsafe

**Administering Organisation** The University of New South Wales

**Project Summary**

Road crashes are a leading cause of death and injury for young Australians, at tremendous economic, social and personal cost. This project has the potential to reduce this problem by developing the first driver training to fast-track development of mental processes that contribute to the most serious young driver crashes. Further, the industry partners are committed to translating the research outcomes into policy and practice. This cutting-edge research will place Australia at the forefront of driver training research, and enhance road safety research capacity.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**University of South Australia**

**LP100200834** Dr Sharon N Casey, A/Prof Andrew Day, Dr Astrid Birgden

**Approved Project Title** **The effective treatment of drug using offenders: the impact of treatment modality, coercion and treatment readiness on criminal recidivism**

2010	\$17,254.50
2011	\$34,509.00
2012	\$34,509.00
2013	\$17,254.50
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

NSW Department of Corrective Services

**Administering Organisation** University of South Australia

**Project Summary**

Drug use is associated with significant health, social, and economic costs. Given the established drug-crime connection and the high rate of relapse among drug-using offenders, the outcomes of this research will assist policymakers in identifying clinically and cost effective approaches to service delivery. Moreover, in view of the debate that surrounds the efficacy of coerced treatment, and the extent to which Australia should follow the United States of America's lead of mandating treatment for all substance using offenders, the project will test the proposition that compulsory treatment has positive outcomes in terms of reductions in recidivism.



## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of New South Wales

**LP100200455** Prof Christopher Cunneen, Ms Melanie Schwartz, Prof Larissa Y Behrendt  
**Approved Project Title** National research study of the civil and family law needs of Indigenous people

2010	\$74,937.50
2011	\$149,937.50
2012	\$158,141.50
2013	\$83,141.50
2014	\$.00
2015	\$.00

APAI 2

#### Partner/Collaborating Organisation(s)

Aboriginal and Torres Strait Islander Legal Service (QLD) Limited, Aboriginal Legal Service of Western Australia Inc., Central Australian Aboriginal Family Law Unit, Legal Aid Commission of Western Australia, Legal Aid Queensland, North Australian Aboriginal Family Violence Legal Service, North Australian Aboriginal Justice Agency Limited, Northern Territory Legal Aid Commission, Victoria Legal Aid, Victorian Aboriginal Legal Service Co-operative Limited

**Administering Organisation** The University of New South Wales

#### Project Summary

This research will benefit Indigenous communities by improving access and equity in legal services. By identifying and addressing the civil and family law needs of Indigenous people, the research will make a key contribution to improving legal and social justice outcomes. Partner organisations in the research will actively implement the findings to the national benefit, creating more appropriate, accessible and better targeted legal services aimed at meeting identified needs. The research will make an important contribution to the Commonwealth's welfare reform and participation agendas, particularly its Access to Justice Framework as better access to legal services can play an important role in alleviating economic and social disadvantage.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Sydney

**LP100200596** Prof Mary E Crock, Prof Kim Rubenstein, Prof Louise K Newman, Prof Sandra M Gifford, Dr Ben Saul, Ms Mary A Kenny

**Approved Project Title** **Small mercies, big futures: enhancing law, policy and practice in the selection, protection and settlement of refugee children and youth**

2010	\$69,500.00
2011	\$137,500.00
2012	\$137,000.00
2013	\$69,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Amnesty International Australia, Centre for Multicultural Youth , Migration Institute of Australia , Multicultural Development Association Inc, Refugee Advice + Casework Service, United Nations High Commissioner for Refugees

**Administering Organisation** The University of Sydney

#### Project Summary

This project will assist refugee youth and children who ultimately become Australian citizens or permanent residents. In so doing, it will help to maximise the social benefits that flow from immigration. The project will also help to reduce the risk of social dysfunction that flows from damage sustained in childhood. By raising awareness of issues involving refugee children, the project will encourage Australians to become more responsive to children generally. Finally, the international exposure generated by the project will assist in restoring Australia's international reputation, which has been damaged by poor practices in relation to refugee youth and children in the past.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1901 ART THEORY AND CRITICISM**

**The University of Melbourne**

**LP100200277** Dr Lachlan MacDowall, Dr Martin J Mulligan, Mr Frank Panucci

**Approved Project Title** **Towards an integrated evaluation framework for intrinsic and instrumental benefits of community-based arts**

2010	\$33,423.50
2011	\$66,847.00
2012	\$68,423.50
2013	\$35,000.00
2014	\$ .00
2015	\$ .00

**Partner/Collaborating Organisation(s)**

Australia Council for the Arts

**Administering Organisation** The University of Melbourne

**Project Summary**

Australia is recognised as a world leader in community-based arts, in which artists and communities collaborate to identify and effect key local issues. Increasingly, these community-based arts projects involve funding from non-arts agencies; for example from the health, justice or urban development sectors. However, existing methods of describing and evaluating their success are generally ineffective. This research will develop more holistic modes of evaluation, offering benefits to the participants, artists and funders of community-based arts and provide support towards further cross-sector collaborations across all public policy areas, further strengthening Australia's reputation as a leader in fostering active and culturally rich communities.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1902 FILM, TELEVISION AND DIGITAL MEDIA**

**RMIT University**

**LP100200088** A/Prof Linda V Williams, Dr Philip Samartzis, Dr Larissa Hjorth, Mr Simon J Perry, Mr Dominic Redfern, Dr Kristen Sharp, Ms Carolyn Viney, Mr Anthony Cullen

**Approved Project Title** **Spatial dialogues: public art and climate change**

2010	\$33,000.00
2011	\$59,850.00
2012	\$48,850.00
2013	\$22,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Grocon (Media House) Pty Ltd, John Fairfax Holdings Pty Ltd

**Administering Organisation** RMIT University

**Project Summary**

This project will yield both social and environmental benefits through the creative ways it combines highly innovative public art projects with electronic social network systems to initiate trans-national civic dialogues on the problem of adaptation to climate change. It extends our sense of urban space to include the regional and global ecologies upon which cities are dependent. The role of water in the city will not only be represented as a vital resource, but as an element essential to life and, as such, replete with deep cultural values frequently overlooked in the expedience of everyday urban life.

**The University of New South Wales**

**LP100200442** Prof Ross R Harley, A/Prof Anna Munster, Prof Sean R Cubitt, Dr Michele F Barker, A/Prof Paul Thomas, Prof Darren J Tofts, Prof Oliver Grau

**Approved Project Title** **Reconsidering Australian media art history in an international context**

2010	\$45,000.00
2011	\$75,000.00
2012	\$65,000.00
2013	\$35,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Australian Network for Art and Technology, Donau Universität Krems

**Administering Organisation** The University of New South Wales

**Project Summary**

This project will establish an unprecedented platform for the promotion and understanding of historic media art works from Australia in a burgeoning international media art scene. It will place Australian media art history within an international context by connecting with established networks of scholars and web resources worldwide. The research outcome, a foundational online resource, will provide future artists and curators with a cohesive overview of Australian media art's recent milestones and developments, crucial to making significantly innovative new works. The project will not only follow international best practice but lead in the development of new interoperability standards for rich-media web resources.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**1904          PERFORMING ARTS AND CREATIVE WRITING**

**RMIT University**

**LP100200118**      Dr David S Carlin, Prof Peta L Tait, A/Prof James A Thom, A/Prof Laurene K Vaughan, Mr Adrian Miles, Mr Michael Finch, Ms Patricia A Stokes, Mr Peter F Williams, Dr Nicholas D Herd

**Approved Project Title**      **The Circus Oz Living Archive: developing a model of online digital engagement for the performing arts**

2010	\$59,000.00
2011	\$114,500.00
2012	\$114,500.00
2013	\$59,000.00
2014	\$.00
2015	\$.00

APAI\_IT                  2

**Partner/Collaborating Organisation(s)**

Australia Council for the Arts, Circus Australia Ltd, Victorian Arts Centre Trust

**Administering Organisation**      RMIT University

**Project Summary**

The performing arts play a crucial role in defining our national identity. Circus Oz, as a flagbearer of contemporary Australian cultural identity around the globe, shares the challenges faced by the sector, including increasing competition for audiences and changing expectations about the relationship between audiences and creative content. Cultural dialogue and creative activity increasingly occur online. The performing arts need to explore novel ways to deepen online community engagement to strengthen their artform. This project researches how digital technologies can help the performing arts employ their documented cultural heritage to drive innovations in repertoire development, performance scholarship and audience interaction.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**2001            COMMUNICATION AND MEDIA STUDIES**

**Queensland University of Technology**

**LP100200056**        Dr John A Banks, Prof Stuart D Cunningham, Dr Jason D Potts, Dr Nicholas D Herd, Mr Ronald B Feeney, Dr Karen R Pearlman

**Approved Project Title**        **The games and the wider interactive entertainment industry in Australia: an inquiry into sources of innovation**

2010	\$38,000.00
2011	\$68,500.00
2012	\$48,500.00
2013	\$18,000.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Australia Council for the Arts, Australian Film Television and Radio School, DR D STUDIOS PTY LIMITED, Firemint Pty Ltd , Halfbrick Studios Pty Ltd , HOODLUM ENTERTAINMENT PTY LTD, INFINITE INTERACTIVE PTY. LTD, KROME STUDIOS PTY LTD, Tantalus Media Pty Ltd

**Administering Organisation**        Queensland University of Technology

**Project Summary**

Games and interactive entertainment are flagship digital industries of the present and future which no advanced economy and digitally enabled society can afford not to engage with. Apart from their evident popularity, and proven growth and export potential, they have provided many models and templates for educational technology. The project will assist the local games and interactive entertainment sector to source international good practice models, to identify potentially new sources of innovation, such as arts practices not traditionally associated with these industries, and contribute a richly detailed case study providing evidence for why the creative industries should be an integral part of the national innovation system.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**2002 CULTURAL STUDIES**

**Curtin University of Technology**

**LP100200093** Dr Sean E Gorman, Dr Dean S Lusher, Dr Keir J Reeves, A/Prof Garry L Robins, A/Prof Lionel E Frost

**Approved Project Title** **Assessing the Australian Football League's (AFL) racial and religious vilification laws to promote community harmony, multiculturalism and reconciliation**

2010	\$45,000.00
2011	\$75,000.00
2012	\$71,500.00
2013	\$41,500.00
2014	\$.00
2015	\$.00

APAI 1

**Partner/Collaborating Organisation(s)**

Australian Football League, The Australian Football League Players Association , Victorian Multicultural Commission

**Administering Organisation** Curtin University of Technology

**Project Summary**

This interdisciplinary project analyses the effectiveness of AFL corporate policy on racial and religious vilification with a view to providing recommendations for further policy actions. A better understanding of how ethnic harmony, diversity and toleration can be achieved will help strengthen the social fabric of the Australian community. As the AFL is one of the largest corporate employers of Indigenous and multicultural Australians, the lessons learned from the operation of its policies and education programs will have important implications for a wide range of Australians across many sectors. Benefits will include recommendations to develop policy frameworks, cross-cultural training and community capacity building.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### Swinburne University of Technology

**LP100200656** Prof Jock D Given, Prof Gerard M Goggin, Ms Fiona Cameron, Mr Michael Brealey

**Approved Project Title** Spreading fictions: distributing stories in the online age

2010	\$36,500.00
2011	\$68,500.00
2012	\$73,000.00
2013	\$41,000.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

Australian Broadcasting Corporation, Screen Australia

**Administering Organisation** Swinburne University of Technology

#### Project Summary

As the first systematic, large scale, public analysis of audiovisual distribution in Australia, Spreading Fictions will greatly improve understanding of a vital area for Australia's economic and cultural future. The high priority governments give to policies encouraging local audiovisual productions reflects a belief in their cultural resonance at home and abroad and the economic significance of creative work. This project will help to maximise the effectiveness of those policies. As digital TV switchover proceeds and the National Broadband Network is built, data about how Australians are using more powerful, functional mobile devices and faster, cheaper fixed line access will be critical.

### University of Western Sydney

**LP100200797** Dr Megan Watkins, A/Prof Gregory Noble, Prof Kevin M Dunn, Ms Nell Lynes, Ms Amanda Bourke, Ms Robyn Mamouney

**Approved Project Title** Rethinking multiculturalism/reassessing multicultural education

2010	\$45,000.00
2011	\$112,692.00
2012	\$113,192.00
2013	\$45,500.00
2014	\$.00
2015	\$.00

APAI 1

#### Partner/Collaborating Organisation(s)

NSW Department of Education and Training, NSW Institute of Teachers

**Administering Organisation** University of Western Sydney

#### Project Summary

No study has systematically explored the links between multicultural policy and educational practice within the context of a thorough understanding of the cultural complexity of contemporary Australia and the conceptual framework of multicultural discourse. This project offers significant national and community benefits in its interrogation of the goals of multiculturalism and the nature of educational programs. Its informed approach to action research will assist in the development of innovative approaches to teaching and learning in diverse communities in urban and rural settings. The resultant enhancement of teacher quality will improve the educational outcomes of all students from culturally and linguistically diverse backgrounds.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**2004 LINGUISTICS**

**Griffith University**

**LP100200406** A/Prof Roderick J Gardner, Dr Ilana Mushin

**Approved Project Title** **Clearing the path towards literacy and numeracy: language for learning in Indigenous schooling**

2010	\$33,246.50
2011	\$67,000.00
2012	\$51,621.00
2013	\$17,867.50
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Education Queensland

**Administering Organisation** Griffith University

**Project Summary**

The Australian and State Governments are committed to halving the gap between Indigenous and other Australians, notably in education outcomes. This project will provide a platform for a better understanding of how language is used in Indigenous classrooms, and set foundations for improving practices for teaching these students, in particular for literacy and numeracy. The project will investigate how children's language use differs from Standard Australian English. Where teachers are aware of such differences, and adapt their classroom communication styles, greater engagement from children can be expected. This will ultimately lead to improved retention rates and learning outcomes, giving Indigenous students a better start to life.

**La Trobe University**

**LP100200234** Dr Tonya N Stebbins, Dr Christina Eira

**Approved Project Title** **Meeting point: integrating Aboriginal and linguistics knowledge systems for description of contemporary revival languages in Australia**

2010	\$14,938.50
2011	\$26,769.50
2012	\$21,617.00
2013	\$9,786.00
2014	\$.00
2015	\$.00

**Partner/Collaborating Organisation(s)**

Victorian Aboriginal Corporation for Languages

**Administering Organisation** La Trobe University

**Project Summary**

Past policies of assimilation have been extremely detrimental to the Aboriginal languages of many parts of Australia. As part of the process of healing from this past, many Aboriginal communities are moving to revive their languages. This research will support communities by developing an accessible and theoretically robust model of language revival which emerges from their own as well as academic approaches to the subject. Practical outcomes will include clearer, more extensive and rigorous information available to Aboriginal communities and the linguists who work with them, and recommendations for optimal pathways for language revival which respond to the priorities and directions of the communities concerned.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**2101          ARCHAEOLOGY**

**The Australian National University**

**LP100200415**          Prof Susan L O'Connor, A/Prof Jane M Balme, Dr Moya V Smith

**Approved**          **Life ways of the first Australians**

**Project Title**

2010	\$112,500.00
2011	\$228,000.00
2012	\$205,500.00
2013	\$90,000.00
2014	\$.00
2015	\$.00

APAI                          2

**Partner/Collaborating Organisation(s)**

Department of the Environment, Water, Heritage and the Arts, Kimberley Foundation Australia, Western Australian Museum

**Administering Organisation**          The Australian National University

**Project Summary**

The project will enhance national cultural heritage assessment and management in the west Kimberley. This is a Australian Government priority because of planned Liquid Natural Gas and other developments in this region. Through the project officer positions, Indigenous communities will gain training and skills that will lead to sustainable livelihoods in cultural tourism or employment opportunities in government cultural heritage agencies. The project directly addresses the National Research Priority goal of responding to climate change and variability by advancing knowledge and understanding of past climates, and assisting in better modelling of future climate change in our region. The project will provide postgraduate training in fieldwork and analysis for APAIs.

**Summary of Successful Linkage - Projects Proposals for Funding to  
Commence in 2010 by FoR group**

**2103 HISTORICAL STUDIES**

**La Trobe University**

**LP100200479** Prof Judith M Brett, Dr James P Leibold, Mr Tsebin Tchen, Mr Eugene Seeto, Dr Mei-fen Kuo

**Approved Project Title** **Unlocking Australia's Chinese archive: the political organisation and social experience of the Chinese Australian community, 1909-1939**

2010	\$40,091.00
2011	\$80,182.00
2012	\$80,182.00
2013	\$40,091.00
2014	\$.00
2015	\$.00

APDI Dr Mei-fen Kuo

**Partner/Collaborating Organisation(s)**

The Chinese Nationalist Party of Australasia, Sydney, The Kuo Ming Tang Society of Melbourne

**Administering Organisation** La Trobe University

**Project Summary**

Australia's social and economic fabric will be strengthened by incorporating the organisations and experiences of the inter-war Chinese Australian community into Australia's history of citizenship and civic participation. This will foster the Chinese community's sense of inclusion in the national story and will make that story available to non-Chinese Australians, thus contributing to the social cohesion in multicultural Australia. It will also illuminate the impact of the White Australia Policy on a significant minority group which will benefit Australia as it responds to the legacy of this policy. It will also strengthen Australia's understanding of its historical engagement with the regional Chinese diaspora and with China.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### Monash University

**LP100200270** Prof Alistair S Thomson, A/Prof Katie B Holmes, Mr Kevin J Bradley, Dr Seamus P O'Hanlon, Dr Christina L Twomey, Dr Kerreen M Reiger, Ms Michelle C Rayner

**Approved Project Title** **Australian generations: life histories, generational change and Australian memory**

2010	\$50,000.00
2011	\$141,000.00
2012	\$182,500.00
2013	\$113,927.00
2014	\$22,427.00
2015	\$.00

APAI 2

#### Partner/Collaborating Organisation(s)

Australian Broadcasting Corporation, National Library of Australia

**Administering Organisation** Monash University

#### Project Summary

As the nation faces dramatic social and environmental change, understanding diverse experiences and memories of Australia's past becomes increasingly important. This project will strengthen Australia's social and economic fabric by explaining the experience, memory and significance of the past for different Australian generations. Sixty national radio programs will make the research widely accessible. Future researchers and educators will benefit from unprecedented online access to an immensely rich national oral history collection. The National Library, ABC, university partnership will ensure that professional innovation in radio history, oral history and digital archiving is cascaded to cultural institutions in Australia and abroad.

## Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by FoR group

### The University of Melbourne

**LP100200304** Prof Patricia A Grimshaw, Prof Marian Sawer, Prof Shurlee L Swain, Prof Anna Haebich, A/Prof Christina Cregan, A/Prof Judith B Smart, Dr Margarita J McCann, Prof Joy Damousi, Dr Darryl J McIntyre, Prof Amanda M Sinclair, Ms Maggie H Shapley

**Approved Project Title** **Women and leadership in a century of Australian democracy**

2010	\$85,573.50
2011	\$122,073.50
2012	\$36,500.00
2013	\$.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Australian Nursing Federation, Museum of Australian Democracy at Old Parliament House, National Archives of Australia, National Film and Sound Archives, National Foundation for Australian Women, National Library of Australia

**Administering Organisation** The University of Melbourne

#### Project Summary

This examination of Australian women leaders addresses the National Research Priority area, frontier technologies. Six Partner Organisations benefit through the use of new technologies that enrich their resources and disseminate new knowledge through websites, exhibitions and conferences. The returns to the broader Australian community include increased awareness of women's record of active organisational contribution including leadership in Indigenous, rural and migrant community organisations, in NGOs, social movements and unions. By identifying the contribution of women's leadership, nationally and internationally, the project offers Australian girls and women of diverse backgrounds encouragement to exercise their own capacities for agency and change.

### The University of Sydney

**LP100200615** Dr Ian R Johnson, Mr Ross H Coleman, Prof Richard Waterhouse, Dr Caroline Butler-Bowdon, Mr Sebastian R Chan, Ms Christine I Yeats

**Approved Project Title** **Enriching digital history: new approaches to content development and delivery using the Dictionary of Sydney**

2010	\$35,500.00
2011	\$57,500.00
2012	\$54,500.00
2013	\$32,500.00
2014	\$.00
2015	\$.00

#### Partner/Collaborating Organisation(s)

Dictionary of Sydney Trust, Historic Houses Trust NSW, Powerhouse Museum, State Records Authority NSW

**Administering Organisation** The University of Sydney

#### Project Summary

The project will maximise the value of public investment in digital history resources by developing new methods of sharing and re-using content between systems and inviting and managing community participation. It will develop methods of preserving the community's investment in history exhibitions after they are taken down, and promote engagement with Sydney's history through delivery of historical information on 'smartphones' in situ within the city. It will generate new content for, and reduce content development costs for a major public resource, the Dictionary of Sydney, and showcase Australian Humanities eResearch by delivering new approaches to content creation and delivery which will be of value to the international research community.