

# Summary of Linkage Projects Applications for Funding to Commence in 2006

## South Australia

### University of South Australia

**LP0667867** Prof E Carson; Dr L Kerr

**Approved Project Title** **Exploring new opportunities for Local Government to facilitate innovative partnership options that link social, economic and employment development**

**2006 :** \$24,650

**2007 :** \$24,650

**2008 :** \$24,650

**Primary RFCD** 3702 SOCIAL WORK

APA(I) Award(s): 1

#### Partner Organisation(s)

City of Salisbury

**Administering Institution** University of South Australia

#### Project Summary

The project seeks to formulate an expanded role for Australian Local Government in light of OECD debates on localism in the formation of partnerships for economic, employment and social development. It will redress the under-utilisation of Local Government's specific knowledge and resources that could facilitate economic, employment and social development, particularly in disadvantaged communities. In addition to the theoretical and practical knowledge gained regarding localism and partnerships, which has immediate community benefit, it is expected that the project's outcomes will have the potential to be transferable to other Local Government jurisdictions in Australia and hence be of national benefit.

**LP0667769** Prof WA Dawson; Ms K McCulloch; Dr GD Roach; Dr AA Baker; Mr A Simmonds; Capt P Randell

**Approved Project Title** **Evaluation of a Fatigue Risk Management System in the Australian aviation industry**

**2006 :** \$74,340

**2007 :** \$74,340

**2008 :** \$74,340

**Primary RFCD** 3212 PUBLIC HEALTH AND HEALTH SERVICES

APDI Ms K McCulloch

#### Partner Organisation(s)

National Jet Systems

Royal Flying Doctors Service [RFDS, central operations inc.]

**Administering Institution** University of South Australia

#### Project Summary

The proposed project will develop and validate tools and guidance materials for design and implementation fatigue risk management systems [FRMSs]. Upon completion of the project, these tools will be made freely available to CASA and the Australian aviation industry. This will assist CASA in providing an efficient FRMS implementation strategy that has been scientifically validated. Furthermore, it will improve safety and minimise the cost of FRMS design and implementation to the aviation industry, which has recently undergone significant financial burden. Ultimately, this will improve safety for the flying public.

## Summary of Linkage Projects Applications for Funding to Commence in 2006

**LP0667864** Dr NK Dutta; A/Prof NR Choudhury; Mr MJ Butcher

**Approved Project Title** **Novel Waterborne Multifunctional Sealer for Asphalt Pavement**

**2006 :** \$77,000

**2007 :** \$77,000

**2008 :** \$77,000

**Primary RFCD** 2914 MATERIALS ENGINEERING

APA(l) Award(s): 1

**Partner Organisation(s)**

RoadSAVE Holding Pty. Ltd.

**Administering Institution** University of South Australia

**Project Summary**

One of the long-term challenges and most serious problems faced by the asphalt surfacing and road construction industry is the rapid deterioration of asphaltic surfaces to the extent that they become unfit/unsafe for use in short time. The length of the Australian local government road system is approximately 810,000 kilometres and currently approximately \$2,460 million/year is spent on road maintenance; the replacement value of the road asset exceeds \$106,000 million. Thus providing satisfactory tough protective shield on asphalt pavements that locks out destructive elements and provide long-term protection is of enormous economic importance and national/community benefit.

**LP0667822** Dr C Garnaut; A/Prof R Freestone; Prof A Alanen

**Approved Project Title** **Cultural heritage in the sustainability of remote planned communities**

**2006 :** \$40,331

**2007 :** \$25,494

**2008 :** \$25,494

**Primary RFCD** 3101 ARCHITECTURE AND URBAN ENVIRONMENT

APA(l) Award(s): 1

**Partner Organisation(s)**

Department for Environment and Heritage

BAE Systems Australia

**Administering Institution** University of South Australia

**Project Summary**

The project responds to one objective of ARC Linkage grants 'to support collaborative research on issues of benefit to regional and rural communities'. It will assist remote settlements struggling for survival because of the demise or downturn of specialised employment bases. Focusing on the heritage importance and attraction of planned settlements in particular, economic and social benefits include increased knowledge of the design history and heritage of Australian post-WW2 planned special-purpose towns in international perspective; strategies for identifying how cultural heritage might be harnessed to revitalise and sustain at risk communities; and postgraduate training in applied history and heritage.

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**LP0668175** Prof AG Mackinnon; Dr PJ O'Leary; A/Prof P Bishop; Ms VR Szekeres

**Approved Project Title** **Doing Social Sustainability: the utopian imagination of youth on the margins**

**2006 :** \$58,000

**2007 :** \$52,000

**2008 :** \$57,000

**Primary RFCD** 4203 CULTURAL STUDIES

### Partner Organisation(s)

Bowden Brompton Community School

Youth Education Centre

The Migration Museum

Social Inclusion Unit, Dept of Premier and Cabinet

Dept of Further Education, Employment, Science & Technology

**Administering Institution** University of South Australia

### Project Summary

Sustainability is an issue of global urgency, and is recognised as a national research priority in Australia. However, the 'social' is often underestimated or subsumed within economic or environmental discourses. The project will add significantly to Australian and international knowledge about sustainability, marginalized youth, and social inclusion policies. It will develop new conceptual tools, foster public debate, and offer young people new possibilities for vocational outcomes that complement their desired futures.

**LP0668009** Dr GE Morris; Dr MS Zbik; Prof RS Smart; Dr M Coghill; Mr WA Wright

**Approved Project Title** **Control Of Aggregate Structure, Settling And Dewatering In Mineral Tailings Processing**

**2006 :** \$90,012

**2007 :** \$81,907

**2008 :** \$84,355

**Primary RFCD** 2501 PHYSICAL CHEMISTRY (INCL. STRUCTURAL)

### Partner Organisation(s)

Rio Tinto Technical Services

High Power Ultrasonics Pty Ltd

**Administering Institution** University of South Australia

### Project Summary

Modification of aggregate structures in mineral processing will lead to improved dewatering in tailings operations. In mine site rehabilitation and tailings utilisation, technology developed in this project may save not only millions of dollars in more efficient processing and tailing deposition but also help to better reuse our limited national water resources.

**LP0667828** Prof J Ralston; Prof TW Healy; Prof GJ Jameson; Prof DV Boger; Prof DY Chan; Prof TJ Napier-Munn

**Approved Project Title** **Australian Mineral Science Research Institute: Transformation of resource-based industries through the generation and application of new technologies**

**2006 :** \$1800,000

**2007 :** \$1800,000

**2008 :** \$1800,000

**2009 :** \$1500,000

**2010 :** \$1500,000

**Primary RFCD** 2907 RESOURCES ENGINEERING

APA(I) Award(s): 19

### Partner Organisation(s)

AMIRA International

Primary Industries & Resources SA

**Administering Institution** University of South Australia

### Project Summary

The research conducted within AMSRI will enable our existing resource-based industries to be transformed through the application of new technologies, helping to create an environmentally sustainable nation, a key national research priority. The research programs in energy efficient liberation, frugal water use and waste management, innovative processing, material and interface science, advanced analysis and mathematics in minerals processing are of critical importance to Australia's major export industry. AMSRI will produce unique graduate students, educated in a multi-university, industry-linked research environment, who will provide a strong intellectual resource to both Australian industry and research institutions.

## Summary of Linkage Projects Applications for Funding to Commence in 2006

**LP0667608** Dr R Sedev; Prof J Ralston; Dr JG Kaldi; Dr MB Clennell; Dr D Dewhurst; Dr PJ Boulton; Mr NP Tupper; Dr RJ Suttill

**Approved Project Title** **Model Studies of the Wettability of Reservoir and Seal Rocks as Recovered and After Treatments to Alter Surface Properties**

**2006 :** \$75,000

**2007 :** \$75,000

**2008 :** \$75,000

**Primary RFCD** 2501 PHYSICAL CHEMISTRY (INCL. STRUCTURAL)

APA(I) Award(s): 1

### Partner Organisation(s)

Primary Industries and Resources SA

Santos Ltd

Origin Energy Ltd

**Administering Institution** University of South Australia

### Project Summary

Key contributions will be made to the science that underpins petroleum recovery. The combination of diverse expertise in interfacial physics and chemistry, petroleum geology and petrophysics provides a large innovative potential for the industry. Two graduate students will be educated in a rich multi-disciplinary research environment with a strong emphasis on both academic and industrial aspects of the problems. The research conducted will enable the industrial partners to improve existing technologies for predicting where oil and gas is trapped and for petroleum recovery.

**LP0667713** Dr SJ Semple; Prof RA McKinnon; Dr J Wang; Mr DJ Claudie

**Approved Project Title** **Pharmacological investigation of medicinal plant products from Kaanju Homelands, Wenlock and Pascoe Rivers, Cape York Peninsula**

**2006 :** \$50,000

**2007 :** \$55,500

**2008 :** \$50,000

**Primary RFCD** 3008 ENVIRONMENTAL SCIENCES

### Partner Organisation(s)

Chuulangun Aboriginal Corporation

**Administering Institution** University of South Australia

### Project Summary

This research will examine the potential for products to be developed from plants on Kaanju homelands. Kaanju people have an immense ecological knowledge accumulated over generations, about the natural resources in an area recognised as being one of Australia's most biologically diverse. Preservation of this knowledge is critical not only to Kaanju people but to the heritage of the Nation as a whole. The research also addresses the National priority 'Promoting & maintaining good health' through the investigation of novel pharmacological activities in areas of cardiovascular health, diabetes and cancer. The collaborative research partnership will serve as a model to assist other Aboriginal organisations, particularly in rural & remote areas.