

# Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2011 by State and Organisation

## South Australia

### University of South Australia

**LP110100136** Dr Amie R Albrecht, Prof Philip G Howlett, Dr Andrew V Metcalfe, Dr Peter J Pudney, Prof Roderick A Smith

**Approved Project Title** **Saving energy on trains - demonstration, evaluation, integration**

2011		\$220,000.00
2012		\$160,000.00
2013		\$160,000.00
Primary FoR	0102	APPLIED MATHEMATICS

#### Partner/Collaborating Organisation(s)

TTG Transportation Technology Pty Ltd

**Administering Organisation** University of South Australia

#### Project Summary

Reducing energy use from rail transport will significantly contribute to cutting carbon dioxide emissions. This project will develop a toolkit to facilitate the introduction of in-cab technologies that help train drivers save energy and stay on time. The toolkit will make it easier to demonstrate, evaluate and integrate the system in a range of railways.

**LP110100222** Prof Simon C Beecham, Prof Lee R White, A/Prof John W Boland, Prof Philip G Howlett, Dr Yvonne M Stokes, Mr John M Wells

**Approved Project Title** **Paving the way: an experimental approach to the mathematical modelling and design of permeable pavements**

2011		\$150,000.00
2012		\$110,000.00
2013		\$110,000.00
Primary FoR	0102	APPLIED MATHEMATICS

#### Partner/Collaborating Organisation(s)

City of Salisbury, HydroCon Australasia Pty Ltd, SA WATER, Zero Waste SA

**Administering Organisation** University of South Australia

#### Project Summary

The intelligent use of permeable pavements will enable restoration of degraded land corridors. Collection and treatment of stormwater via filtration through porous media will improve water quality in urban environments and will also control flooding. The integration of ecology and urban living will present a revolutionary way to revitalize cities.

**LP110100439** Prof Namita R Choudhury, A/Prof Naba K Dutta

**Approved Project Title** **Nanostructured anticorrosive coating for wave energy conversion module**

2011		\$110,000.00
2012		\$120,000.00
2013		\$120,000.00
Primary FoR	0303	MACROMOLECULAR AND MATERIALS CHEMISTRY

#### Partner/Collaborating Organisation(s)

Wave Rider Energy Pty Ltd

**Administering Organisation** University of South Australia

#### Project Summary

The project will develop new high performance anticorrosion coatings for metal structures, such as a Waverider- a patented wave energy conversion module. It will deliver a strong intellectual property position in the frontier anti-corrosion technology to Australian Industry and train young scientists in the emerging and multidisciplinary field of research.

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**LP110100536** Prof Karen A Grimmer-Somers, Dr Saravana Kumar, Dr Susan L Hillier, A/Prof John R Moss, Mr John Forward, Ms Rachel Newrick  
**Approved Project Title** **Improving the diagnostic accuracy of detecting functional decline in older people discharged from hospital emergency departments**

2011		\$78,898.00
2012		\$37,648.00
Primary FoR	1117	PUBLIC HEALTH AND HEALTH SERVICES

**Partner/Collaborating Organisation(s)**

Central Northern Adelaide Health Service., Royal Adelaide Hospital, SA Department of Health

**Administering Organisation** University of South Australia

**Project Summary**

There is no accurate early screening tool to detect the loss of ability in older people to live independently. This research evaluates a new screening tool to identify the risk of functional decline. This will assist hospital staff to put appropriate discharge plans in place to mitigate against functional decline.

**LP110100649** Dr Viv E Perry, Prof Raymond J Rodgers, Prof Isabella C McMillen  
**Approved Project Title** **Quantifying the effect of nutrient-gene interaction in utero in key tissues instrumental to productivity and sustainability of the beef industry**

2011		\$130,000.00
2012		\$105,000.00
2013		\$105,000.00
Primary FoR	0702	ANIMAL PRODUCTION

**Partner/Collaborating Organisation(s)**

Ridley Agri-products, S Kidman & Co Ltd

**Administering Organisation** University of South Australia

**Project Summary**

The cattle industry occupies 43 per cent of the land mass and provides 13 per cent of rural employment. Nutritional insult in utero affects postnatal reproductive and production traits in cattle and imposes epigenetic modifications. This project investigates the effect upon genes affecting appetite, ovarian development, adipogenesis, myogenesis and post natal growth.

**LP110100317** Dr Anna M Sullivan, Prof Bruce R Johnson, Prof Laurence D Owens, Prof Robert N Conway  
**Approved Project Title** **Punish them or engage them? Identifying and addressing productive and unproductive student behaviours in South Australian schools**

2011		\$60,000.00
2012		\$46,676.00
2013		\$50,000.00
Primary FoR	1303	SPECIALIST STUDIES IN EDUCATION

**Partner/Collaborating Organisation(s)**

Association of Independent Schools South Australia Inc, Association of Principals of Catholic Secondary Schools, Department of Education and Children's Services (South Australia), South Australian Catholic Primary Principals Association, South Australian Commission for Catholic Schools Incorporated, South Australian Primary Principals Association , South Australian Secondary Principals Association

**Administering Organisation** University of South Australia

**Project Summary**

This project will provide a contemporary understanding of productive and unproductive student behaviour, which is a key educational concern in Australia. Evidence will be obtained to inform educational decisions to engage and promote positive student behaviour and improve academic achievement.

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**LP110100156** A/Prof George Zillante, Dr Lou J Wilson, Dr Jian Zuo, Dr Stephen Pullen, Ms Jasmine S Palmer, Prof Frank Schultmann, Prof Jiayuan Wang

**Approved Project Title** **Re-considering sustainable building and design: a cultural change approach**

2011		\$145,000.00
2012		\$155,000.00
2013		\$145,000.00
Primary FoR	1202	BUILDING

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

Australian Institute of Building, Australian Institute of Building Surveyors, Campbelltown City Council SA, Goodman Ltd, Hodgkinson Architects, Royal Institution of Chartered Surveyors, Shenzhen Jianyi International Engineering Consultants Ltd, Zero Waste SA

**Administering Organisation** University of South Australia

### **Project Summary**

This project will help reduce the 38 per cent of all Australian waste that is produced by the construction industry by addressing the role of the building procurement team in reducing resource usage and eliminating waste. The outcomes of this research will address National Research Priority 1, An Environmentally Sustainable Australia.