Number of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Division

020000	**Physical Sciences**	
0201	ASTRONOMICAL AND SPACE SCIENCES	4
0204	CONDENSED MATTER PHYSICS	3
020000	**Physical Sciences**	**7**
030000	**Chemical Sciences**	
0301	ANALYTICAL CHEMISTRY	2
0303	MACROMOLECULAR AND MATERIALS CHEMISTRY	1
0304	MEDICINAL AND BIOMOLECULAR CHEMISTRY	3
0306	PHYSICAL CHEMISTRY (INCL. STRUCTURAL)	4
030000	**Chemical Sciences**	**10**
040000	**Earth Sciences**	
0401	ATMOSPHERIC SCIENCES	2
0402	GEOCHEMISTRY	6
0403	GEOLOGY	1
0404	GEOPHYSICS	1
040000	**Earth Sciences**	**10**
060000	**Biological Sciences**	
0601	BIOCHEMISTRY AND CELL BIOLOGY	9
0604	GENETICS	2
0605	MICROBIOLOGY	1
0607	PLANT BIOLOGY	1
060000	**Biological Sciences**	**13**
080000	**Information and Computing Sciences**	
0805	DISTRIBUTED COMPUTING	1
080000	**Information and Computing Sciences**	**1**
090000	**Engineering**	
0901	AEROSPACE ENGINEERING	1
0903	BIOMEDICAL ENGINEERING	2
0904	CHEMICAL ENGINEERING	5
0905	CIVIL ENGINEERING	1
0906	ELECTRICAL AND ELECTRONIC ENGINEERING	1
0912	MATERIALS ENGINEERING	10
0914	RESOURCES ENGINEERING AND EXTRACTIVE METALLURGY	4
090000	**Engineering**	**24**
100000	**Technology**	
1005	COMMUNICATIONS TECHNOLOGIES	1

Number of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Division

1007	NANOTECHNOLOGY	2
100000	**Technology**	**3**
110000	**Medical and Health Sciences**	
1101	MEDICAL BIOCHEMISTRY AND METABOLOMICS	1
1102	CARDIOVASCULAR MEDICINE AND HAEMATOLOGY	2
1112	ONCOLOGY AND CARCINOGENESIS	1
110000	**Medical and Health Sciences**	**4**
170000	**Psychology and Cognitive Sciences**	
1701	PSYCHOLOGY	1
170000	**Psychology and Cognitive Sciences**	**1**
180000	**Law and Legal Studies**	
1801	LAW	1
180000	**Law and Legal Studies**	**1**
190000	**Studies in Creative Arts and Writing**	
1901	ART THEORY AND CRITICISM	1
190000	**Studies in Creative Arts and Writing**	**1**
200000	**Language, Communication and Culture**	
2003	LANGUAGE STUDIES	1
2005	LITERARY STUDIES	1
200000	**Language, Communication and Culture**	**2**
Total Number of Grants		**77**

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0201 ASTRONOMICAL AND SPACE SCIENCES

The Australian National University

LE120100023	**Bessell, Prof Michael S; Dopita, Prof Michael A; Parker, Prof Quentin A; Mould, Prof Jeremy R; Glazebrook, Prof Karl; Lattanzio, Prof John C; Pimbblet, Dr Kevin A**
Approved Project Title	**Detailed spectrophotometric/velocity mapping of galaxies and identifying transient Gamma-Ray Burst Sources (GRBs) and the first stars with the unique upgraded Wide Field Spectrograph (WiFeS) facility.**

2012	$185,000.00
Total	**$185,000.00**

Primary FoR 0201 ASTRONOMICAL AND SPACE SCIENCES

Partner/Collaborating Eligible Organisation(s)

Macquarie University, Monash University, Swinburne University of Technology

Administering Organisation The Australian National University

Project Summary

This project will allow light from galaxies be more efficiently detected and analysed. In particular details of a galaxy's composition, rotation, recessional velocity and star formation history will be possible following extensive refurbishment of the Siding Spring Observatory's Wide Field Spectrograph and installation of new extremely sensitive charged couple device (CCD) detectors.

The University of New South Wales

LE120100158	**Burton, Prof Michael G; Storey, Prof John W; Cunningham, Dr Maria R; Green, Prof Anne J; Wardle, Prof Mark J; Dawson, Prof Bruce R; Rowell, Dr Gavin P; Maddison, A/Prof Sarah T; Walsh, A/Prof Andrew J; Fukui, Prof Yasuo; Stutzki, Prof Dr Jürgen**
Approved Project Title	**The Nanten2 sub-millimetre telescope**

2012	$150,000.00
2013	$150,000.00
2014	$150,000.00
2015	$150,000.00
2016	$150,000.00
Total	**$750,000.00**

Primary FoR 0201 ASTRONOMICAL AND SPACE SCIENCES

Partner/Collaborating Eligible Organisation(s)

University of Cologne, University of Nagoya
James Cook University, Macquarie University, Swinburne University of Technology, The University of Adelaide, The University of Sydney

Administering Organisation The University of New South Wales

Project Summary

The millimetre-wavelength sky holds the key for understanding how stars form in the coldest regions of interstellar space: the molecular clouds of our Galaxy. A new frontline facility in Chile will be used in an international research endeavour to map their structures, in order to find out how they form and what causes stars to be born inside them.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

The University of Sydney

LE120100199 **Bland-Hawthorn, Prof Jonathan; Croom, A/Prof Scott M; Ireland, Dr Michael J; Leon-Saval, Dr Sergio G; O'Byrne, A/Prof John W; Colless, Prof Matthew; Ellis, Dr Simon C; Lawrence, Dr Jonathan S**

Approved Project Title **GNOSIS-J: completing the revolutionary OH suppression spectrograph**

2012	$300,000.00
Total	**$300,000.00**

Primary FoR 0201 ASTRONOMICAL AND SPACE SCIENCES

Partner/Collaborating Eligible Organisation(s)

Australian Astronomical Observatory
Macquarie University

Administering Organisation The University of Sydney

Project Summary

The GNOSIS-J project brings together leading Australian astronomers to make use of recent technological advances in photonics — a key strength of Australian research and industry — to provide a dramatic improvement in observational sensitivity at near-infrared wavelengths. This will allow new observations of the deep universe.

The University of Western Australia

LE120100051 **Coward, A/Prof David M; Meurer, Prof Hans-Gerhardt R; Zadnik, A/Prof Marjan G; Boer, Dr Michel L; Klotz, Prof Alain; Gendre, Dr Bruce**

Approved Project Title **A robotic telescope imaging system for rapid response spectroscopy of gamma ray bursts**

2012	$150,000.00
Total	**$150,000.00**

Primary FoR 0201 ASTRONOMICAL AND SPACE SCIENCES

Partner/Collaborating Eligible Organisation(s)

INAF National Institute for Astrophysics, The Observatory of Haute-Provence (OHP), University of Toulouse III (Paul Sabatier)
Curtin University of Technology

Administering Organisation The University of Western Australia

Project Summary

This project will build and employ a rapid response optical spectrograph on the robotic Zadko Telescope, triggered by satellite and ground based observatories. The instruments will be used to probe the most energetic explosions in the universe and to test non-standard quantum and relativity theories using coincident multi-wavelength observations.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0204 CONDENSED MATTER PHYSICS

La Trobe University

LE120100028 **Pigram, A/Prof Paul J; Peele, Prof Andrew G; Pakes, Dr Christopher I; Van Riessen, Dr Grant A; Forsyth, Prof Maria; Barnett, Prof Matthew R; Howlett, Dr Patrick C; Wen, Prof Cuie**

Approved Project Title **Advanced surface imaging and spectroscopy facility: Scanning auger nanoprobe**

2012 $600,000.00

Total **$600,000.00**

Primary FoR 0204 CONDENSED MATTER PHYSICS

Partner/Collaborating Eligible Organisation(s)

Commonwealth Scientific and Industrial Research Organisation
Deakin University, Swinburne University of Technology

Administering Organisation La Trobe University

Project Summary

Understanding advanced materials and nano-fabricated devices on the nanometre scale is essential for innovation in the manufacturing, healthcare, pharmaceutical, energy and mining sectors. The next generation Scanning Auger Nanoprobe will support research rated well-above world standard and dramatically increase national surface analytical capacity.

RMIT University

LE120100186 **Bryant, Prof Gary J; Gehman, Dr John D; Latham, Dr Kay; Separovic, Prof Frances; Richardson, Dr Samantha J; Lioe, Dr Hadi; Pattenden, Dr Leonard K; Mulvaney, Prof Paul; Mulhern, Dr Terrence D**

Approved Project Title **Advanced biophysical characterisation centre (ABCC)**

2012 $370,000.00

Total **$370,000.00**

Primary FoR 0204 CONDENSED MATTER PHYSICS

Partner/Collaborating Eligible Organisation(s)

The University of Melbourne

Administering Organisation RMIT University

Project Summary

The Advanced Biophysical Characterisation Centre shared between RMIT and the University of Melbourne will provide a comprehensive suite of techniques for the study of problems in membrane biophysics, protein and biomolecular assembly and the nanosciences, with applications to health, environmental science and advanced technologies.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

The University of Newcastle

LE120100229	**Dastoor, Prof Paul C; O'Connor, Prof John; Belcher, Dr Warwick J; Officer, Prof David L; Innis, A/Prof Peter C; Andersson, Dr Gunther G; Allison, Dr William**
Approved Project Title	**A prototype Scanning Helium Atom Microscope (SHeM) for soft materials**
2012	$250,000.00
Total	**$250,000.00**

Primary FoR 0204 CONDENSED MATTER PHYSICS

Partner/Collaborating Eligible Organisation(s)

University of Cambridge
The Flinders University of South Australia, University of Wollongong

Administering Organisation The University of Newcastle

Project Summary

The scanning helium atom microscope (SHeM) has been a tantalising prospect since the birth of quantum physics. The SHeM would have unparalleled resolution and would be completely non-damaging; potentially revolutionising the imaging of soft delicate materials. This project will develop the first SHeM instrument in Australia to study soft matter.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0301 ANALYTICAL CHEMISTRY

La Trobe University

LE120100213 **Hogan, Dr Conor F; Francis, Dr Paul S; Barnard, Dr Peter J; Barnett, Prof Neil W; Mechler, Dr Adam I; Richards, Dr Anne F; Cutts, Dr Suzanne M; Pfeffer, Dr Frederick M**

Approved Project Title **Advanced fluorescence characterisation facility**

2012 $150,000.00

Total **$150,000.00**

Primary FoR 0301 ANALYTICAL CHEMISTRY

Partner/Collaborating Eligible Organisation(s)

Deakin University

Administering Organisation La Trobe University

Project Summary

Fluorescence is the emission of light by a substance that has absorbed light of a different wavelength. Fluorescence techniques and fluorescent molecules have enabled a great many of the most important advances in biology, chemistry and medicine in recent decades. This facility will support a wide range of research projects using or exploring fluorescence and luminescence. The research supported will underpin advances in diverse scientific fields.

University of Wollongong

LE120100059 **Blanksby, A/Prof Stephen J; Mitchell, Dr Todd W; Beck, A/Prof Jennifer L; Aquilina, Dr John A; Sanderson-Smith, Dr Martina L; Rice, Dr Scott A; Trengove, A/Prof Robert D; Davies, Prof Michael J; Willcox, Prof Mark D; Truscott, Prof Roger J**

Approved Project Title **Multiplexed capabilities for surface analysis and imaging by mass spectrometry**

2012 $220,000.00

Total **$220,000.00**

Primary FoR 0301 ANALYTICAL CHEMISTRY

Partner/Collaborating Eligible Organisation(s)

Murdoch University, The University of New South Wales, The University of Sydney

Administering Organisation University of Wollongong

Project Summary

This facility will support research aimed at developing rapid and reliable analytical methods for the detection of chemicals directly from biological and man-made materials. The mass spectroscopy methods used at the facility will reveal molecular-level changes in systems ranging from the lens of the human eye to Colorbond steel® and have applications in the detection of chemical and biological hazards.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0303 MACROMOLECULAR AND MATERIALS CHEMISTRY

The University of Melbourne

LE120100094	**Qiao, Prof Greg G; Guo, Prof Qipeng; Simon, Prof George P; Wang, Prof Xungai; Kentish, A/Prof Sandra E; Lin, A/Prof Tong; Cook, Prof Wayne D; Franks, A/Prof George V; Blencowe, Dr Anton; Gurr, Dr Paul A; Zhao, Dr Yan; Hameed, Dr Nishar**
Approved Project Title	**Macromolecular characterisation and purification facility**
2012	$220,000.00
Total	**$220,000.00**

Primary FoR 0303 MACROMOLECULAR AND MATERIALS CHEMISTRY

Partner/Collaborating Eligible Organisation(s)

Deakin University, Monash University

Administering Organisation The University of Melbourne

Project Summary

In-depth characterisation of (bio)macromolecules and nanomaterials is fundamental to understanding their properties and application to advanced materials and technologies. The three new instruments at this facility dedicated to the purification, separation and characterisation of these compounds will provide an essential resource for polymer/materials research.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0304 MEDICINAL AND BIOMOLECULAR CHEMISTRY

Griffith University

LE120100170	**Quinn, Prof Ronald J; Poulsen, A/Prof Sally-Ann; Mak, Prof Johnson; Charles, Prof Ian G; McCluskey, Prof Adam; Harry, Prof Elizabeth J**
Approved Project Title	**Bioaffinity mass spectrometry infrastructure to identify small molecules binding to therapeutic targets.**
2012	$580,000.00
Total	**$580,000.00**

Primary FoR 0304 MEDICINAL AND BIOMOLECULAR CHEMISTRY

Partner/Collaborating Eligible Organisation(s)

Deakin University, The University of Newcastle, University of Technology, Sydney

Administering Organisation Griffith University

Project Summary

The development of anti-infective therapies is challenging because the underlying biology and biochemistry of pathogen virulence is not yet completely understood. This mass spectrometer facility will be used to identify small molecules suited for development into new therapies for malaria, tuberculosis and HIV.

James Cook University

LE120100015	**Daly, Dr Norelle L; Loukas, Prof Alex C; Mulvenna, Dr Jason P; Seymour, A/Prof Jamie E; Craik, Prof David J; King, Prof Glenn F; Fairlie, Prof David P; Rosengren, Dr Karl J; Schirra, Dr Horst J**
Approved Project Title	**High-resolution and high-throughput Nuclear Magnetic Resonance (NMR) facility**
2012	$630,000.00
Total	**$630,000.00**

Primary FoR 0304 MEDICINAL AND BIOMOLECULAR CHEMISTRY

Partner/Collaborating Eligible Organisation(s)

The University of Queensland

Administering Organisation James Cook University

Project Summary

This facility will provide researchers at James Cook University and The University of Queensland with a nuclear magnetic resonance spectroscope with a cryogenically cooled probe which will enable the structures of novel biomolecules from spiders, hookworms, plants and synthetic drugs to be revealed. These studies have the potential to lead to new drugs for cancer, pain, inflammatory and tropical diseases.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

The University of Queensland

LE120100071	**Ragan, Prof Mark A; Cooper, Prof Matthew A; Capon, Prof Robert J; Gorse, Dr Alain-Dominique J; Stoermer, Dr Martin J; Camp, Dr David B; Andrews, Dr Katherine T; Hofmann, A/Prof Andreas; Kurtboke, Dr Dilber I; Huston, Dr Wilhelmina M; Timms, Prof Peter**
Approved Project Title	**Chemi-biology computational platform for lead discovery in infectious disease**
2012	$290,000.00
Total	**$290,000.00**

Primary FoR 0304 MEDICINAL AND BIOMOLECULAR CHEMISTRY

Partner/Collaborating Eligible Organisation(s)

Griffith University, Queensland University of Technology, University of the Sunshine Coast

Administering Organisation The University of Queensland

Project Summary

A challenge in fighting infectious disease is in finding new bioactive compounds. This facility will provide a high performance computational environment designed to accelerate the discovery of quality compounds for use in anti-infective medicine.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0306 PHYSICAL CHEMISTRY (INCL. STRUCTURAL)

Curtin University of Technology

LE120100026 **Buckley, Prof Craig E; Raston, Prof Colin L; Jiang, Prof San Ping; Arrigan, A/Prof Damien; Li, Prof Chun-Zhu; De Marco, Prof Roland; Hinckley, A/Prof Steven; Antoszewski, Prof Jarek; Ogden, Prof Mark I; Liu, Prof Yinong; Parish, A/Prof Giacinta; Swaminatha-Iyer, Dr Killugudi L**

Approved Project Title **A surface characterisation facility**

2012	$480,000.00
Total	**$480,000.00**

Primary FoR 0306 PHYSICAL CHEMISTRY (INCL. STRUCTURAL)

Partner/Collaborating Eligible Organisation(s)

Edith Cowan University, The University of Western Australia, University of the Sunshine Coast

Administering Organisation Curtin University of Technology

Project Summary

This surface characterisation facility will provide scientists with an understanding of material's surfaces and interfaces. This will lead to a range of new technologies and innovative solutions required to address the many resource and environmental challenges facing our planet now and in the future.

The University of Adelaide

LE120100012 **Sumby, Dr Christopher J; Gerson, Prof Andrea R; Doonan, Dr Christian J; Pring, Prof Allan; Ellis, A/Prof Amanda V; Ebendorff-Heidepriem, A/Prof Heike; Zou, Prof Linda Y; Lenehan, Dr Claire E; Chittleborough, Prof David J; Majewski, Prof Peter J**

Approved Project Title **Enhanced powder X-ray diffraction capabilities for South Australia**

2012	$230,000.00
Total	**$230,000.00**

Primary FoR 0306 PHYSICAL CHEMISTRY (INCL. STRUCTURAL)

Partner/Collaborating Eligible Organisation(s)

South Australian Museum
The Flinders University of South Australia, University of South Australia

Administering Organisation The University of Adelaide

Project Summary

This X-ray diffraction facility will provide structural information on the properties of novel materials which is important for investigations ranging from post-combustion carbon dioxide capture through to the identification of new mineralogical samples. Rapid, local access to this integrated facility will position South Australian researchers to make breakthroughs that benefit Australia.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

The University of Western Australia

LE120100112 **May, Prof Eric F; Johns, Prof Michael L; Hefter, Prof Glenn T; Luiten, Prof Andre N; Wanless, A/Prof Erica J; Lou, A/Prof Xia; Burke, Dr Nick R; Diniz da Costa, Prof Joao C; Hall, Prof Kenneth R; Marsh, Prof Kenneth N; Boxall, Dr John A; May, Prof Peter M; Trengove, A/Prof Robert D; Stockenhuber, Dr Michael; Radny, A/Prof Marian W; Webber, Dr Grant B; Stace, Dr Thomas M; Smart, Dr Simon K; Maeda, Dr Nobuo; Seo, Dr Yutaek; Kozielski, Dr Karen A; Jaraula, Dr Caroline M; Phan, Dr Chi M**

Approved Project Title **A Raman facility for advanced research supporting Australia's natural gas, oil, coal and minerals industries**

2012	$275,000.00
Total	**$275,000.00**

Primary FoR 0306 PHYSICAL CHEMISTRY (INCL. STRUCTURAL)

Partner/Collaborating Eligible Organisation(s)

Commonwealth Scientific and Industrial Research Organisation, Texas A and M University
Curtin University of Technology, Murdoch University, The University of Newcastle, The University of Queensland

Administering Organisation The University of Western Australia

Project Summary

This modern Raman Spectroscopy facility will support the science and engineering that underpins the production and processing of Australia's natural resources. Using high-pressure fibre optics, novel lasers and advanced imaging, the facility will enable the monitoring and improvement of processes and materials under extreme conditions.

University of South Australia

LE120100021 **Short, Prof Robert D; McArthur, Prof Sally L; Corr, Dr Cormac S; Whittle, Dr Jason D; Steele, Dr David A; Griesser, Prof Hans J; Howard, Prof John; Kingshott, Prof Peter; Murphy, Dr Peter J**

Approved Project Title **A diagnostics platform for advanced plasma-chemical analysis**

2012	$150,000.00
Total	**$150,000.00**

Primary FoR 0306 PHYSICAL CHEMISTRY (INCL. STRUCTURAL)

Partner/Collaborating Eligible Organisation(s)

Swinburne University of Technology, The Australian National University

Administering Organisation University of South Australia

Project Summary

A wide range of production processes involve the use of plasmas to modify materials, but they are not well understood. This project will give Australian researchers the tools to look inside plasma processes and fully characterise them for the first time, unlocking new knowledge and providing new insight into the plasma processing environment.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0401 ATMOSPHERIC SCIENCES

The Australian National University

LE120100181 **Botten, Prof Lindsay C; Leinweber, Prof Derek B; Radom, Prof Leo; Gready, Prof Jill E; England, Prof Matthew H; Mark, Prof Alan E; Blackburn, Prof Hugh M; Hogg, Dr Andrew M; Jakob, Prof Christian; Pitman, Prof Andrew J; Powell, A/Prof Benjamin J; Rasmussen, Prof Kim J; Moresi, Prof Louis N; Yu, Prof Aibing B; Knackstedt, Prof Mark A; Bilek, Prof Marcela M; Ragan, Prof Mark A; Schmidt, Prof Brian P; Muller, Prof Dietmar; Pukala, Dr Tara L; Soria, Prof Julio; Turney, Prof Chris S; Hourigan, Prof Kerry; Adelson, Prof David L; Khanna, A/Prof Rita; Denier, A/Prof Jim; Pailthorpe, Prof Bernard A**

Approved Project Title **Strengthening merit-based access and support at the new National Computing Infrastructure petascale supercomputing facility**

2012 $650,000.00

Total **$650,000.00**

Primary FoR 0401 ATMOSPHERIC SCIENCES

Partner/Collaborating Eligible Organisation(s)

Monash University, The University of Adelaide, The University of New South Wales, The University of Queensland, The University of Sydney

Administering Organisation The Australian National University

Project Summary

World-leading high-performance computing is fundamental to Australia's international research success. This facility will provide access to the new National Computational Infrastructure facility by world-leading researchers from six research universities, and sustain ground-breaking work in an increasingly competitive environment.

LE120100067 **Shats, Prof Michael; Babanin, Prof Alexander V; Marusic, Prof Ivan; Young, Prof Ian R; Punzmann, Dr Horst; Xia, Dr Hua; Toffoli, Dr Alessandro; Chalikov, Prof Dmitry; Klewicki, Prof Joseph C; Hutchins, Dr Nicholas; Monty, Dr Jason P**

Approved Project Title **Wind profiler network for planetary boundary layer research**

2012 $210,000.00

Total **$210,000.00**

Primary FoR 0401 ATMOSPHERIC SCIENCES

Partner/Collaborating Eligible Organisation(s)

Swinburne University of Technology, The University of Melbourne

Administering Organisation The Australian National University

Project Summary

Understanding winds in the lower atmosphere is of great fundamental and practical importance. This new wind monitoring network will help Australian scientists to better predict propagation of tropical cyclones, to improve the efficiency of wind energy production, and to better understand atmosphere-ocean interactions affecting weather and climate.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0402 GEOCHEMISTRY

Curtin University of Technology

LE120100077	**Grice, Prof Kliti; Oliver, Prof Richard P; Charrois, A/Prof Jeffrey W; Greenwood, Dr Paul F; Linge, Dr Kathryn L; Flematti, Dr Gavin R; Tan, Dr Kar-Chun; Dodson, Prof John R**
Approved Project Title	**Automated preparative gas chromatograph for isolating unique and important organic components for structural identification**
2012	$150,000.00
Total	**$150,000.00**
Primary FoR	0402 GEOCHEMISTRY

Partner/Collaborating Eligible Organisation(s)

Australian Nuclear Science and Technology Organisation
The University of Western Australia

Administering Organisation Curtin University of Technology

Project Summary

The rapid capability to purify and identify significant and important organic compounds, present at low levels within complex mixtures, is fundamental to geochemistry, plant biology, chemistry, and environmental science. This facility's automated gas chromatograph will assist in isolating and purifying new compounds from microbes, plants, humans, animals, and environmental and geological samples.

Macquarie University

LE120100076	**Rushmer, A/Prof Tracy A; O'Neill, Prof Hugh S; Cruden, Prof Alexander R; Turner, Prof Simon P**
Approved Project Title	**The first Australian high pressure Synchrotron facility for geoscience research**
2012	$155,000.00
Total	**$155,000.00**
Primary FoR	0402 GEOCHEMISTRY

Partner/Collaborating Eligible Organisation(s)

Australian Synchrotron Company Ltd
Monash University, The Australian National University

Administering Organisation Macquarie University

Project Summary

In high-pressure mineral physics and chemistry, mineral properties, stress-strain relationships and processes like partial melting are applied to geophysical research about the deep Earth. This project will provide a large volume, high pressure capability at the Australian Synchrotron which will allow these mineral properties to be measured under conditions which simulate the deep earth.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

Southern Cross University

LE120100201	**Bush, Prof Richard T; Burton, A/Prof Edward D; Scheffers, Dr Sander R; Scheffers, A/Prof Anja M; Rose, A/Prof Andrew L**
Approved Project Title	**High-resolution laser ablation inductively coupled plasma mass spectrometer for cutting edge geochemistry research**
2012	$200,000.00
Total	**$200,000.00**

Primary FoR 0402 GEOCHEMISTRY

Partner/Collaborating Eligible Organisation(s)

Administering Organisation Southern Cross University

Project Summary

The new-generation laser ablation inductively coupled plasma mass spectrometer is a highly versatile precise analytical instrument for palaeo-environmental, palaeoclimate, archaeological and geochemical studies. With this instrument Australia will continue to lead the way in cutting-edge geoscience research.

LE120100156	**Santos, Dr Isaac R; Eyre, Prof Bradley D; Dworjanyn, Dr Symon A; Oakes, Dr Joanne M; Erler, Dr Dirk V**
Approved Project Title	**A high precision, automated system for studying greenhouse gas cycling in coastal environments**
2012	$250,000.00
Total	**$250,000.00**

Primary FoR 0402 GEOCHEMISTRY

Partner/Collaborating Eligible Organisation(s)

Administering Organisation Southern Cross University

Project Summary

This facility will perform automated, long-term greenhouse gas measurements in coastal waters. The expected outcome of research at this facility is a better understanding of how the coastal ocean acts as a source or sink of carbon dioxide, nitrous oxide, methane, and volatile organic carbon.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

The University of Adelaide

LE120100054 **Gillanders, Prof Bronwyn M; Robinson, Prof Sharon A; Walker, A/Prof Stewart; Kennedy, Prof Martin J; Watling, A/Prof Jennifer R; Soole, A/Prof Kathleen L; Tibby, Dr John; Guan, Dr Huade W; Cooper, Prof Alan; Ball, Prof Andrew S**

Approved Project Title **Stable isotope analysis of environmental and physiological samples**

2012 $420,000.00

Total **$420,000.00**

Primary FoR 0402 GEOCHEMISTRY

Partner/Collaborating Eligible Organisation(s)

Bio Innovation SA
The Flinders University of South Australia, University of Wollongong

Administering Organisation The University of Adelaide

Project Summary

Mass spectrometers capable of isotope analysis are essential tools for the earth and environmental sciences, physiology and palaeoecology. This project will provide mass spectrometers for both laboratory and field conditions which will ensure Australia remains at the forefront of international research, attract collaborations and lead to outcomes of global significance.

The University of Melbourne

LE120100180 **Drysdale, Dr Russell N; Woodhead, Prof Jonathan D; Hellstrom, Dr John C; Treble, Dr Pauline C; Baker, Prof Andrew**

Approved Project Title **An Australian fluid-inclusion facility for climate-change science**

2012 $150,000.00

Total **$150,000.00**

Primary FoR 0402 GEOCHEMISTRY

Partner/Collaborating Eligible Organisation(s)

Australian Nuclear Science and Technology Organisation
The University of New South Wales

Administering Organisation The University of Melbourne

Project Summary

Understanding past temperature and rainfall changes is essential for improving climate projections. The proposed facility will generate new palaeotemperature and palaeorainfall information from cave deposits, leading to a better understanding of natural climate variability and change.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0403 GEOLOGY

The Australian National University

LE120100218	**Roberts, Prof Andrew P; Heslop, Dr David C; Pillans, Prof Bradley J; De Deckker, Prof Patrick; Lister, Prof Gordon S; Li, Prof Zheng-Xiang; Rosenbaum, Dr Gideon; Vasconcelos, Prof Paulo M; Aitchison, Prof Jonathan C; Pisarevsky, Dr Sergei A; Tohver, Dr Eric; Schmidt, Dr Phillip W; McWilliams, Prof Michael O**
Approved Project Title	**A world-class rock magnetic facility to support Australian palaeomagnetic and environmental research**
2012	$254,078.00
Total	**$254,078.00**

Primary FoR 0403 GEOLOGY

Partner/Collaborating Eligible Organisation(s)

Commonwealth Scientific and Industrial Research Organisation
Curtin University of Technology, The University of Queensland, The University of Sydney, The University of Western Australia

Administering Organisation The Australian National University

Project Summary

Magnetic properties of rocks and environmental particles provide information about a vast range of geological and environmental processes. We propose to develop a facility that will enable detection and interpretation of these magnetic signals to aid understanding of climate change, mineral exploration, and the geological development of Australia.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0404 GEOPHYSICS

The Australian National University

LE120100061	**Rawlinson, Dr Nicholas; Lumley, Prof David; Sandiford, Prof Michael A; Cummins, Prof Phil R; Dentith, Prof Michael C; Lister, Prof Gordon S; Shragge, Dr Jeffrey C; Rawling, A/Prof Timothy J; Pozgay, Dr Sara**
Approved Project Title	**A new seismic facility for investigating tectonic collision zones, earthquake hazards and passive imaging techniques**
2012	$285,000.00
Total	**$285,000.00**

Primary FoR 0404 GEOPHYSICS

Partner/Collaborating Eligible Organisation(s)

The University of Melbourne, The University of Western Australia

Administering Organisation The Australian National University

Project Summary

A new seismic facility will enable collaboration with overseas partners to better understand plate margin tectonics and earthquake hazard in our region for mutual benefit. It will also be used in pilot studies of areas endowed with deep earth resources, and in assessing regions of heightened earthquake activity in Australia.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0601 BIOCHEMISTRY AND CELL BIOLOGY

La Trobe University

LE120100152 **Kvansakul, Dr Marc; Ryan, Prof Michael T; Heras, Dr Begoña; Maher, Dr Megan J; Hawkins, Dr Christine J; Perugini, A/Prof Matthew A; Parker, Prof Michael W; Cappai, Prof Roberto; Ralph, Dr Stuart A; Griffin, Dr Michael D**

Approved Project Title **Melbourne and La Trobe rapid integrated X-ray diffraction facility**

2012 $360,000.00

Total **$360,000.00**

Primary FoR 0601 BIOCHEMISTRY AND CELL BIOLOGY

Partner/Collaborating Eligible Organisation(s)

The University of Melbourne

Administering Organisation La Trobe University

Project Summary

This new facility will enable rapid X-ray diffraction studies of macromolecular crystals which are critical in reaching an understanding of cellular signalling events and interactions between microbial pathogens and their host organisms at the atomic level.

Monash University

LE120100090 **Whisstock, Prof James C; Rossjohn, Prof Jamie; Lithgow, Prof Trevor J; Ramm, Dr Georg; Rood, Prof Julian I; Kvansakul, Dr Marc; Stojanovski, Dr Diana; Dougan, Dr David A; Hoogenraad, Prof Nicholas J; Puthalakath, Dr Hamsa; Colman, Prof Peter M; Lawrence, A/Prof Michael C; Czabotar, Dr Peter E**

Approved Project Title **A centre for structural cryo-electron microscopy**

2012 $640,000.00

Total **$640,000.00**

Primary FoR 0601 BIOCHEMISTRY AND CELL BIOLOGY

Partner/Collaborating Eligible Organisation(s)

The Walter and Eliza Hall Institute of Medical Research
La Trobe University

Administering Organisation Monash University

Project Summary

This equipment will use powerful microscopes to visualise the shape of proteins. The data generated in the facility will provide fundamental insight into how large complex proteins govern life-and-death events in biology. These data will be important for scientists to develop new approaches to control aberrant protein function in disease.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

The University of Melbourne

LE120100022 **Gooley, A/Prof Paul R; Scanlon, A/Prof Martin J; Hinds, Dr Mark G; Norton, Prof Raymond S; Separovic, Prof Frances; Stone, A/Prof Martin J; Reynolds, Prof Eric C; Gras, Dr Sally L; McConville, Prof Malcolm J; Call, Dr Matthew E; Bottomley, Prof Stephen P; Babon, Dr Jeffrey J**

Approved Project Title **A 700 MHz Nuclear Magnetic Resonance (NMR) spectrometer for the Melbourne Biomolecular NMR Network: A high throughput resource.**

2012 $480,000.00

Total **$480,000.00**

Primary FoR 0601 BIOCHEMISTRY AND CELL BIOLOGY

Partner/Collaborating Eligible Organisation(s)

The Walter and Eliza Hall Institute of Medical Research
Monash University

Administering Organisation The University of Melbourne

Project Summary

The Melbourne Biomolecular Nuclear Magnetic Resonance (NMR) Network will enable NMR experiments aimed at discovering new molecules for diagnosing, treating and preventing disease, and identifying and eradicating pests. The new equipment will allow researchers to work with large numbers of samples, to identify the biomarkers of disease and to find new drug candidates quickly.

LE120100037 **Tilley, Prof Leann; Harper, A/Prof Ian S; Ryan, Prof Michael T; Gleeson, Prof Paul A; Furness, Prof John B; Tiganis, Prof Tony; Nugent, Prof Keith A; Hartland, Prof Elizabeth L; Jans, Prof David A; Lackmann, A/Prof Martin; Maier, Dr Alexander G; Baum, Dr Jacob; Rogers, Dr Kelly L; Cowman, Prof Alan F**

Approved Project Title **A cellular nano-imaging facility: Probing cellular complexity.**

2012 $350,000.00

Total **$350,000.00**

Primary FoR 0601 BIOCHEMISTRY AND CELL BIOLOGY

Partner/Collaborating Eligible Organisation(s)

The Walter and Eliza Hall Institute of Medical Research
La Trobe University, Monash University

Administering Organisation The University of Melbourne

Project Summary

Answering the major medical and biotechnology questions of the 21st century will be heavily reliant on the use of advanced imaging techniques. This facility will establish a new and revolutionary microscope which is capable of producing images of living cells in action at high magnification and with the greatest clarity.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

The University of New South Wales

LE120100224 **Boecking, Dr Till; Gaus, A/Prof Katharina; Gooding, Prof John J; Gunning, Prof Peter W; Hardeman, Prof Edna C**

Approved Project Title **Multi-mode fluorescence microscope for visualising the dynamics of cellular processes at the single-molecule level**

2012 $250,000.00

Total **$250,000.00**

Primary FoR 0601 BIOCHEMISTRY AND CELL BIOLOGY

Partner/Collaborating Eligible Organisation(s)

Administering Organisation The University of New South Wales

Project Summary

Fluorescence is the emission of light by a substance that has absorbed light of a different wavelength. This fluorescence microscopy facility will allow the visualisation of the dynamic processes that define life at the molecular level. This insight will help us understand cellular function and how it is impaired in various diseases including cancer and neurodegenerative disorders such as Parkinson's and Alzheimer's disease.

LE120100027 **Rae, Prof Caroline; Messerle, Prof Barbara A; Davis, Prof Tom P; Neilan, Prof Brett A; Klugmann, A/Prof Matthias; Kennedy, Dr Danielle F; Pyne, Prof Stephen G; in het Panhuis, A/Prof Marc P; Drummond, Prof Calum J; Chiefari, Dr John; Oakley, A/Prof Aaron J**

Approved Project Title **Sensitive and multinuclear: a dedicated facility for high-throughput characterisation of small molecules.**

2012 $320,000.00

Total **$320,000.00**

Primary FoR 0601 BIOCHEMISTRY AND CELL BIOLOGY

Partner/Collaborating Eligible Organisation(s)

Commonwealth Scientific and Industrial Research Organisation
University of Wollongong

Administering Organisation The University of New South Wales

Project Summary

This project will provide new cutting edge nuclear magnetic resonance equipment will enhance an existing shared analysis facility based at University of New South Wales. The new equipment will underpin research in polymers, neuropharmacology, the biological basis of inherited disease, nanomedicine, bioactive compounds and toxins.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

The University of Queensland

LE120100128 **Martin, Prof Jennifer L; Alexandrov, Prof Kirill; Schembri, Prof Mark A; Cummins, Dr Scott F; Kobe, Prof Bostjan; Sweet, Dr Matthew J**

Approved Project Title **Overcoming membrane protein research roadblocks: A Queensland facility for membrane protein production and crystallisation**

2012 $237,000.00

Total **$237,000.00**

Primary FoR 0601 BIOCHEMISTRY AND CELL BIOLOGY

Partner/Collaborating Eligible Organisation(s)

University of the Sunshine Coast

Administering Organisation The University of Queensland

Project Summary

Many drugs target specialised molecules called membrane proteins that reside at the interface between cells and the cells' environment. This membrane protein production facility will address significant challenges in the production and analysis of membrane proteins, which will enable a better understanding of how they function and provide a platform for the design of new and better drugs.

The University of Western Australia

LE120100092 **Bond, Prof Charles S; Vrielink, Prof Alice; Filipovska, Dr Aleksandra; Martins, Prof Ralph N; Verdile, Dr Giuseppe; Oliver, Prof Richard P; Stubbs, Dr Keith A; Whelan, Prof James M; Ziman, A/Prof Mel**

Approved Project Title **A high-throughput protein production and structure facility**

2012 $240,000.00

Total **$240,000.00**

Primary FoR 0601 BIOCHEMISTRY AND CELL BIOLOGY

Partner/Collaborating Eligible Organisation(s)

Curtin University of Technology, Edith Cowan University

Administering Organisation The University of Western Australia

Project Summary

Making proteins and studying their structures and properties is a key activity in biotechnology, drug design, food security and bio-nanotechnology. The Protein Production and Structure Facility will provide Western Australian researchers and their international partners with world-class resources to pursue this research for the benefit of all Australians.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

University of Wollongong

LE120100045	**Yerbury, Dr Justin J; Wilson, Prof Mark R; Garner, Prof Brett; Dixon, Prof Nicholas E; Huang, Prof Xu-Feng; Olsson, Prof Mats M; Sunde, Dr Margaret; Campbell, Prof Iain L; Truscott, Prof Roger J**
Approved Project Title	**Integrated facility for confocal imaging and single molecule fluorescence analysis**

2012	$300,000.00
Total	**$300,000.00**

Primary FoR	0601	BIOCHEMISTRY AND CELL BIOLOGY

Partner/Collaborating Eligible Organisation(s)

The University of Sydney

Administering Organisation University of Wollongong

Project Summary

This facility will provide a microscope system for confocal imaging and single molecule fluorescence analysis. The facility will provide all the imaging requirements of a large group of researchers. It will provide them with the ability to measure interactions between single molecules. This will make possible many important advances across diverse areas ranging from climate change to serious diseases like Alzheimer's disease.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0604 GENETICS

Macquarie University

LE120100038	**Paulsen, Prof Ian T; Wilkins, Prof Marc R; Packer, Prof Nicolle H; Wade, Prof Claire M; Waterhouse, Prof Peter M; Scott, Prof Rodney J; Dawes, Prof Ian W; Cavicchioli, Prof Ricardo; Willows, A/Prof Robert D; Whitchurch, A/Prof Cynthia B; Charles, Prof Ian G; Stokes, Prof Harold (Hatch) W; Gillings, Prof Michael R; Jin, Dr Dayong; Firth, A/Prof Neville**
Approved Project Title	**Single cell genomics**
2012	$654,000.00
Total	**$654,000.00**

Primary FoR 0604 GENETICS

Partner/Collaborating Eligible Organisation(s)

The University of New South Wales, The University of Newcastle, The University of Sydney, University of Technology, Sydney

Administering Organisation Macquarie University

Project Summary

This facility will allow us to discover the complete DNA sequence of an organism from as little material as a single cell. This equipment will allow Australian researchers to compete on an equal footing with international leaders in understanding the roles of genes in plants, bacteria, animals and humans.

The University of Queensland

LE120100025	**Hugenholtz, Prof Philip; Stinear, Dr Timothy P; Tyson, Dr Gene W; Howden, Dr Benjamin P; Walker, Prof Mark J; Robins-Browne, Prof Roy M; Schembri, Prof Mark A; Sly, Prof Peter D; Hartland, Prof Elizabeth L; Moreau, Dr John W**
Approved Project Title	**A high-throughput screening and sequencing facility for single cell genomics**
2012	$380,000.00
Total	**$380,000.00**

Primary FoR 0604 GENETICS

Partner/Collaborating Eligible Organisation(s)

The University of Melbourne

Administering Organisation The University of Queensland

Project Summary

Genomics has revolutionised biology, but for most microorganisms this revolution has not arrived because very few can be grown in pure culture. The single cell genomics facility will address this major bottleneck by allowing as little as a single cell in a clinical or environmental setting to be sequenced thereby accelerating new discoveries and outcomes.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0605 MICROBIOLOGY

Deakin University

LE120100020	**Ward, Prof Alister C; Mak, Prof Johnson; Wang, Dr Linfa; Stambas, Dr John; Lowenthal, Dr John W; Tripp, Prof Ralph A; de Koning-Ward, Dr Tania F; Buttemer, Prof William A**
Approved Project Title	**Collaborative high bio-containment immunological research facility**
2012	$520,000.00
Total	**$520,000.00**

Primary FoR 0605 MICROBIOLOGY

Partner/Collaborating Eligible Organisation(s)

Commonwealth Scientific and Industrial Research Organisation, University of Georgia

Administering Organisation Deakin University

Project Summary

Emerging infectious diseases are a serious threat to animals and humans, with most new human infections originating in animals. Our capacity to study these infections and their effects on the immune system is limited. This Facility will provide core equipment for analysis of immune responses to infection at the highest levels of bio-containment.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0607 PLANT BIOLOGY

The University of Western Australia

LE120100044	**Millar, Prof Andrew H; Lambers, Prof Johannes T; Atkin, Prof Owen K; Colmer, Prof Timothy D; Powles, Prof Stephen B; Badger, Prof Murray R; Smith, Prof Steven M**
Approved Project Title	**New facilities for multiplex gas-exchange (MGX) measurements of plant performance during climate-controlled growth**
2012	$650,000.00
Total	**$650,000.00**
Primary FoR	0607 PLANT BIOLOGY

Partner/Collaborating Eligible Organisation(s)

The Australian National University

Administering Organisation The University of Western Australia

Project Summary

Precise study of oxygen and carbon dioxide gas exchange can quantify the underlying factors responsible for plant growth. This dedicated facility will increase the scope and accuracy of Australian research into plant productivity thereby allowing improved understanding of factors affecting plants' adaptability to environmental change and plant competition or pathogen effects.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0805 DISTRIBUTED COMPUTING

The University of Melbourne

LE120100129	**Palaniswami, Prof Marimuthu; Mendis, Prof Priyan; Taylor, Prof Michael A; Chung, Prof Edward; Pathirana, A/Prof Pubudu N; Buyya, Prof Rajkumar; Leckie, A/Prof Christopher; Duckham, A/Prof Matt R; Nandagopal, Prof Doraisamy**
Approved Project Title	**Internet of things testbed for creating a Smart City**
2012	$270,000.00
Total	**$270,000.00**

Primary FoR 0805 DISTRIBUTED COMPUTING

Partner/Collaborating Eligible Organisation(s)

City of Melbourne, Queensland Department of Transport and Main Roads
Deakin University, Queensland University of Technology, University of South Australia

Administering Organisation The University of Melbourne

Project Summary

The Internet of Things Testbed facility replicates the conditions of a city-wide distribution of sensors and data collection applications to model in real time the functioning urban sensing elements of a smart city, translating vast amounts of sensor data into meaningful information and ultimately action.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0901 AEROSPACE ENGINEERING

Monash University

LE120100139	**Wu, Prof Xinhua; Mei, Dr Junfa; Sercombe, Prof Timothy B; Bettles, Dr Colleen J; Ma, A/Prof Qian; Schaffer, Prof Graham B; Dargusch, Dr Matthew S; Brandt, Prof Milan; Cheng, Prof Yi-Bing**
Approved Project Title	**A Hot Isostatic Press (HIP) for aerospace and biomedical component processing**
2012	$350,000.00
Total	**$350,000.00**

Primary FoR 0901 AEROSPACE ENGINEERING

Partner/Collaborating Eligible Organisation(s)

RMIT University, The University of Queensland, The University of Western Australia

Administering Organisation Monash University

Project Summary

This facility will provide a hot isostatic press of sufficiently large capacity to maximise production efficiencies in aerospace and biomedical applications through net shape manufacturing. The facility will be able to process small components or prototypes which will behave in a manner similar to larger scale components.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0903 BIOMEDICAL ENGINEERING

The University of Melbourne

LE120100131 **Caruso, Prof Frank; Hourigan, Prof Kerry; Kent, Prof Stephen J; Simon, Prof George P; Stevens, Prof Geoff W; Komesaroff, Prof Paul A; Such, Dr Georgina K; Chen, Dr Qizhi; Johnston, Dr Angus P; Chin-Dusting, Prof Jaye P; Quinn, Dr Julian M**

Approved Project Title **Biomaterials characterisation facility**

2012 $150,000.00

Total **$150,000.00**

Primary FoR 0903 BIOMEDICAL ENGINEERING

Partner/Collaborating Eligible Organisation(s)

Prince Henry's Institute of Medical Research
Monash University

Administering Organisation The University of Melbourne

Project Summary

The convergence of nanotechnology and biotechnology offers new opportunities to prepare nanoengineered materials for applications in biomedicine. The Biomaterials Characterisation Facility will provide equipment to characterise such nanoengineered materials to underpin advances in therapeutic drug delivery and tissue engineering.

The University of Sydney

LE120100006 **Keall, Prof Paul J; Jackson, A/Prof Michael; Rozenfeld, Prof Anatoly B; Barton, Prof Michael B; Greer, A/Prof Peter B; Vial, Dr Philip J; Baldock, Prof Clive; Metcalfe, Prof Peter E; Thwaites, Prof David I; Kuncic, A/Prof Zdenka; Holloway, Dr Lois C; Bosi, Dr Stephen G; Eslick, Dr Enid M; Downes, Mr Simon J**

Approved Project Title **An adaptable and dedicated linear accelerator for medical radiation research**

2012 $600,000.00

Total **$600,000.00**

Primary FoR 0903 BIOMEDICAL ENGINEERING

Partner/Collaborating Eligible Organisation(s)

Liverpool Hospital, Prince of Wales Hospital
The University of New South Wales, The University of Newcastle, University of Wollongong

Administering Organisation The University of Sydney

Project Summary

Leading radiation scientists developing innovative methods and devices for treating cancer patients will collaborate in future research using this highly adaptable linear accelerator for medical radiation research. Innovations in tumour targeting, better patient safety, new medical devices and improved cancer outcomes are expected.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0904 CHEMICAL ENGINEERING

Curtin University of Technology

LE120100211	**Pareek, Prof Vishnu K; Evans, Prof Geoffrey M; Yang, A/Prof Hong; Jones, Prof Mark G; Tade, Prof Moses O; Liu, A/Prof Shaomin; Leong, Prof Yee K; Doroodchi, Dr Elham; Utikar, Dr Ranjeet; Moreno-Atanasio, Dr Roberto; Boxall, Dr John A; Iglauer, Dr Stefan**
Approved Project Title	**3D Gamma Ray Tomography for Multiphase Flow Characterisation**
2012	$230,000.00
Total	**$230,000.00**

Primary FoR 0904 CHEMICAL ENGINEERING

Partner/Collaborating Eligible Organisation(s)

The University of Newcastle, The University of Western Australia

Administering Organisation Curtin University of Technology

Project Summary

We will establish a new tomographic facility which will allow a greater insight on the flows in industrial multiphase equipment which have opaque containers. The facility will provide a platform for Australian researchers to conduct fundamental research on complex flows, particularly those encountered in our mineral processing industry.

Monash University

LE120100141	**Bhattacharya, A/Prof Sankar P; Kentish, A/Prof Sandra E; Zhang, Prof Dongke; Ladewig, Dr Bradley P; Stevens, Prof Geoff W; Scholes, Dr Colin A; Webley, Prof Paul A; Zhang, Dr Lian; Abrahams, A/Prof Brendan F; Hein, Prof Dr Klaus R; Anderson, Dr Clare J**
Approved Project Title	**Testing facilities for clean energy transformation technologies**
2012	$300,000.00
Total	**$300,000.00**

Primary FoR 0904 CHEMICAL ENGINEERING

Partner/Collaborating Eligible Organisation(s)

The University of Melbourne, The University of Western Australia

Administering Organisation Monash University

Project Summary

As the world approaches peak oil production, the use of gasification to convert solid fuels to hydrogen and liquid fuels provides a low carbon footprint approach to the cleaner transformation of energy. This testing facility for clean energy transformation technologies will enhance the competitiveness of Australian science and engineering, contributing to the development of new technologies.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

The University of New South Wales

LE120100208 **Yu, Prof Aibing B; Yang, Dr Runyu Y; Hoffman, Prof Mark J; Ostrovski, Prof Oleg; Bao, A/Prof Jie; Pareek, Prof Vishnu K; Tade, Prof Moses O; Uy, Prof Brian; Xiang, Prof Yang; Leo, A/Prof Chin J; Zhu, Dr Haiping; Zeng, Dr Qinghua; Biggs, Prof Mark J**

Approved Project Title **An advanced computational facility based on a graphic processing unit for particulate research**

2012 $350,000.00

Total **$350,000.00**

Primary FoR 0904 CHEMICAL ENGINEERING

Partner/Collaborating Eligible Organisation(s)

Curtin University of Technology, The University of Adelaide, University of Western Sydney

Administering Organisation The University of New South Wales

Project Summary

The graphic processing unit (GPU) is becoming an engine for the next generation of supercomputers for scientific research. The technology at this new facility will be exploited to perform large-scale, real time simulations of complex particulate material processing which is critical to Australia's mineral/metallurgical/material industries.

The University of Newcastle

LE120100230 **Dlugogorski, Prof Bogdan Z; Kennedy, Prof Eric M; Moghtaderi, Prof Behdad; Stockenhuber, Dr Michael; Melchers, Prof Robert E; Abbas, Dr Ali; Valix, A/Prof Marjorie; Harris, A/Prof Andrew T; Kannangara, A/Prof G.S. Kamali; Bartlett, Prof John; Milev, Dr Adriyan S; Tran, Dr Nguyen H; May, Prof Eric F; Rufford, Asst Prof Thomas E; O'Neill, A/Prof Brian K**

Approved Project Title **Simultaneous measurements of reaction kinetics and particle distributions for cutting-edge research into CO2 storage, catalysis and novel materials**

2012 $160,000.00

Total **$160,000.00**

Primary FoR 0904 CHEMICAL ENGINEERING

Partner/Collaborating Eligible Organisation(s)

The University of Adelaide, The University of Sydney, The University of Western Australia, University of Western Sydney

Administering Organisation The University of Newcastle

Project Summary

This integrated facility will support the development of new CO2 storage and utilisation technologies for Australia. It will also assist with developing technologies for corrosion protection, energy recovery from biomass, and mineral processing which will maintain the competitiveness of Australia in these industries.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

The University of Queensland

LE120100109	**Nguyen, Prof Anh V; Rudolph, Prof Victor; Bhatia, Prof Suresh K; Zhu, Prof John; Smart, Dr Simon K; Zhang, Prof Dongke; Chua, Prof Hui Tong; Moreno-Atanasio, Dr Roberto; Evans, Prof Geoffrey M; Galvin, Prof Kevin P; Jameson, Prof Graeme J; Moghtaderi, Prof Behdad; Li, A/Prof Qin; Wang, A/Prof Shaobin; Phan, Dr Chi M; Liu, A/Prof Shaomin**
Approved Project Title	**A facility for non-destructive quantification of coal structures, composition and percolation fluid flows in energy and environmental applications**
2012	$370,000.00
Total	**$370,000.00**

Primary FoR 0904 CHEMICAL ENGINEERING

Partner/Collaborating Eligible Organisation(s)

Curtin University of Technology, The University of Newcastle, The University of Western Australia

Administering Organisation The University of Queensland

Project Summary

The facility will advance our scientific understanding of 3D micro- and nanostructures of coal under various mechanical and chemical conditions. It will help develop process innovation and breakthrough technologies for energy and environmental applications. It will also enhance the research capabilities of the collaborating institutions.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0905 CIVIL ENGINEERING

The University of Western Australia

LE120100011	**Gaudin, Prof Christophe; Cassidy, Prof Mark J; Randolph, Prof Mark F; White, Prof David J; Sloan, Prof Scott W; Carter, Prof John P; Indraratna, Prof Buddhima N; Williams, Prof David J; Kodikara, A/Prof Jayantha K; Jaksa, A/Prof Mark B; Krabbenhoft, A/Prof Kristian; Fourie, Prof Andries B; Merifield, Dr Richard S; Rujikiatkamjorn, Dr Cholachat; Geng, Dr Xueyu; Pedroso, Dr Dorival d; Scheuermann, Dr Alexander; Bouazza, Prof Abdelmalek**
Approved Project Title	**The national geotechnical centrifuge facility**
2012	$700,000.00
Total	**$700,000.00**

Primary FoR 0905 CIVIL ENGINEERING

Partner/Collaborating Eligible Organisation(s)

Monash University, The University of Adelaide, The University of Newcastle, The University of Queensland, University of Wollongong

Administering Organisation The University of Western Australia

Project Summary

A new geotechnical centrifuge will enable the modelling of complex offshore and onshore structures. The new facility will support many geotechnical fields, associated with the economical and geographical development of Australia, and ensure that Australia will maintain its leadership within the international physical modelling community.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0906 ELECTRICAL AND ELECTRONIC ENGINEERING

The University of Newcastle

LE120100215	**Moheimani, Prof S. O. Reza; Kisi, Prof Erich H; Petersen, Prof Ian R; Alici, Prof Gursel; Huntington, Prof Elanor H; Behrens, Dr Sam; Harb, A/Prof Charles C; Pota, A/Prof Hemanshu R; Li, A/Prof Weihua; Welsh, Dr James S; Summers, Dr Terrence J**
Approved Project Title	**Facility for characterisation of engineered microelectromechanical systems**
2012	$300,000.00
Total	**$300,000.00**

Primary FoR 0906 ELECTRICAL AND ELECTRONIC ENGINEERING

Partner/Collaborating Eligible Organisation(s)

Commonwealth Scientific and Industrial Research Organisation
The University of New South Wales, University of Wollongong

Administering Organisation The University of Newcastle

Project Summary

This facility will provide Australian microelectromechanical (MEMS) researchers with a vital, world-class, capacity for characterisation of micro-machined devices and transducers, enabling them to compete internationally in this emerging field.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0912 MATERIALS ENGINEERING

Deakin University

LE120100166	**Barrow, Prof Colin J; McNaughton, Prof Donald; Cas, Prof Raymond A; Chen, Prof Ying I; Henderson, Dr Luke C; Fox, A/Prof Bronwyn L; Wood, Dr Bayden R; Vongsvivut, Dr Jitraporn**
Approved Project Title	**Infrared and Raman microspectroscopic equipment for biomolecular and nanostructural analysis**
2012	$240,000.00
Total	**$240,000.00**

Primary FoR 0912 MATERIALS ENGINEERING

Partner/Collaborating Eligible Organisation(s)

Monash University

Administering Organisation Deakin University

Project Summary

This project will expand the combined microspectroscopic capabilities of Deakin and Monash Universities to enable high resolution characterisation of a diverse range of components in the fields of biotechnology and nanomaterials. The facility can be applied to pinpointing co-localised compounds within cells through to characterising metal composites, carbon nano tubes and fibres.

LE120100034	**Stanford, Dr Nicole; Hodgson, Prof Peter D; Wen, Prof Cuie; Beynon, Prof John H; Chen, Prof Ying I; Pereloma, Prof Elena; Brooks, Prof Geoffrey A; Beladi, Dr Hossein; Voelcker, Prof Nicolas H; Hutchinson, A/Prof Christopher R; Timokhina, Dr Ilana; Dippenaar, Prof Rian J; Pigram, A/Prof Paul J; Davies, Prof Christopher H; Nie, Prof Jian-Feng; Calka, A/Prof Andrzej**
Approved Project Title	**Investigating materials on the atomic scale using 3-dimensional atom probe tomography**
2012	$675,000.00
Total	**$675,000.00**

Primary FoR 0912 MATERIALS ENGINEERING

Partner/Collaborating Eligible Organisation(s)

La Trobe University, Monash University, Swinburne University of Technology, The Flinders University of South Australia, University of Wollongong

Administering Organisation Deakin University

Project Summary

A facility capable of examining the position of individual atoms inside a material will be established to serve the Australian research community. This information will be used to design engineering alloys with improved strength, biocompatibility and reduced environmental footprints. It will also be used to characterise alloys produced by new green technologies.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

Griffith University

LE120100223 **Gray, Prof Evan M; Provis, Dr John L; Mulders, Dr Annemieke M; Kisi, Prof Erich H; Yao, A/Prof Xiangdong; Franks, A/Prof George V; Riesen, A/Prof Hans A; Hutchison, Dr Wayne D; Timmers, A/Prof Heiko -; Sushkov, Prof Oleg P**

Approved Project Title **Advanced X-ray diffraction facility for high energy and extreme conditions**

2012 $340,000.00

Total **$340,000.00**

Primary FoR 0912 MATERIALS ENGINEERING

Partner/Collaborating Eligible Organisation(s)

The University of Melbourne, The University of New South Wales, The University of Newcastle

Administering Organisation Griffith University

Project Summary

X-ray powder diffraction is a powerful technique for determining the structure of matter at the atomic scale. This project will establish a new Australian capability for X-ray powder diffraction under extreme conditions that emulate real harsh service environments for advanced functional materials.

RMIT University

LE120100004 **Mitchell, Prof Arnan; McCulloch, Prof Dougal G; Friend, Prof James R; Kalantar-zadeh, A/Prof Kourosh; Yeo, A/Prof Leslie Y; Li, A/Prof Dan; Sriram, Dr Sharath; Bhaskaran, Dr Madhu; Neshev, A/Prof Dragomir N**

Approved Project Title **Thin film processing cluster: precise synthesis and nano-patterning of functional coatings**

2012 $470,000.00

Total **$470,000.00**

Primary FoR 0912 MATERIALS ENGINEERING

Partner/Collaborating Eligible Organisation(s)

Monash University, The Australian National University

Administering Organisation RMIT University

Project Summary

This facility will allow Australian researchers to create advanced functional materials with unprecedented control over material configurations and near atomic scale precision in dimensions. This will enable significant advances in high speed photonics and electronics, health and environment monitoring, and micro-energy sources.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

The University of New South Wales

LE120100098 **Aguey-Zinsou, Dr Kondo-Francois; Maschmeyer, Prof Dr Thomas; Chen, Prof Vicki; Liu, Prof Hua K; Amal, Prof Rose; Perrier, A/Prof Sebastien**

Approved Project Title **A comprehensive gas/vapour sorption facility for the fast advancement of decarbonised energy technologies**

2012 $230,000.00

Total **$230,000.00**

Primary FoR 0912 MATERIALS ENGINEERING

Partner/Collaborating Eligible Organisation(s)

The University of Sydney, University of Wollongong

Administering Organisation The University of New South Wales

Project Summary

Solutions to clean energy production, storage and use are critical to Australia's prosperity, yet there is a significant lack of targeted research facilities for the development of the highly needed materials and technologies for powering a sustainable Australia. This facility will bring research efforts closer to practical solutions.

LE120100188 **Dzurak, Prof Andrew S; Li, A/Prof Sean S; Hamilton, Prof Alexander R; Davies, Prof Graham J; Bremner, Dr Stephen; Reilly, Dr David J; Liu, A/Prof Zongwen; Lewis, Prof Roger A; Guo, A/Prof Zai P; Zhao, Dr Yue; Nowotny, Dr Maria K; Sheppard, Dr Leigh R**

Approved Project Title **Epitaxial growth facility for advanced materials**

2012 $1,000,000.00

Total **$1,000,000.00**

Primary FoR 0912 MATERIALS ENGINEERING

Partner/Collaborating Eligible Organisation(s)

The University of Sydney, University of Western Sydney, University of Wollongong

Administering Organisation The University of New South Wales

Project Summary

An advanced materials fabrication facility accessible to all Australian researchers will be established. This will allow crystal growth at the atomic level for novel materials with applications including fundamental physics, nanocomposites, energy storage and conversion systems, and solar cells.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

LE120100197 **Li, A/Prof Sean S; Amal, Prof Rose; Kepert, Prof Cameron J; Zhang, Prof Chao; Sheppard, Dr Leigh R; Zheng, Dr Rongkun; Kennedy, Dr Brendan J; Sahajwalla, Prof Veena; Guo, A/Prof Zai P; Ling, Dr Chris D; D'Alessandro, Dr Deanna M; Klose, Dr Frank; Jiang, Dr Xuchuan**

Approved Project Title **A magnetic property measurement facility for the development of advanced materials and biomedical technologies in the Sydney basin**

2012 $375,000.00

Total **$375,000.00**

Primary FoR 0912 MATERIALS ENGINEERING

Partner/Collaborating Eligible Organisation(s)

Australian Nuclear Science and Technology Organisation
The University of Sydney, University of Western Sydney, University of Wollongong

Administering Organisation The University of New South Wales

Project Summary

The measurement of magnetic properties is important in the study both of magnetic and electronic materials and biological systems. This new equipment will support a diverse array of high impact research, spanning the fundamental to the applied, and will bring together complementary expertise from multiple disciplines and institutions.

The University of Queensland

LE120100036 **Zou, Prof Jin; Liao, A/Prof Xiaozhou; Munroe, Prof Paul R; Drennan, Prof John; Zhao, Prof Huijun; Yu, Prof Chengzhong; Diniz da Costa, Prof Joao C; Meredith, Prof Paul; Yan, A/Prof Cheng; Motta, A/Prof Nunzio; Ringer, Prof Simon P; Ye, Prof Lin; Wang, Prof Guoxiu; Zheng, Dr Rongkun; Wang, Dr Yanbo; Hoffman, Prof Mark J; Ferry, Prof Michael; Stevens-Kalceff, A/Prof Marion A; Conibeer, A/Prof Gavin J**

Approved Project Title **National in-situ transmission electron microscope facilities**

2012 $440,000.00

Total **$440,000.00**

Primary FoR 0912 MATERIALS ENGINEERING

Partner/Collaborating Eligible Organisation(s)

Griffith University, Queensland University of Technology, The University of New South Wales, The University of Sydney, University of Technology, Sydney

Administering Organisation The University of Queensland

Project Summary

This project will establish six complementary transmission electron microscope (TEM) facilities at various locations. The establishment of the facilities will be a key step in developing advanced capacity in Australia and will support ground-breaking research in diverse material systems for various high-performing applications, including electronics, optoelectronics, light metals, biomaterials, energy, and environment.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

The University of Sydney

LE120100035 **Liao, A/Prof Xiaozhou; Laws, Dr Kevin J; Sha, Dr Gang; Ringer, Prof Simon P; Ferry, Prof Michael; Wang, Prof Xiaolin; Wang, Dr Yanbo; Chan, A/Prof Sammy L; Proust, Dr Gwenaelle; Young, Prof David J; Zhang, Dr Yuebin; Lu, Dr Cheng**

Approved Project Title **Joint processing facility for the production of far-from-equilibrium alloy structures**

2012	$200,000.00
Total	**$200,000.00**

Primary FoR 0912 MATERIALS ENGINEERING

Partner/Collaborating Eligible Organisation(s)

The University of New South Wales, University of Wollongong

Administering Organisation The University of Sydney

Project Summary

One of today's research frontiers is to design materials with tailored physical, chemical and mechanical properties which would be suitable for new uses. Equipment for melt spinning and high-pressure torsion will be used to process materials to achieve novel microstructures. These will pave the way to new types of advanced materials for future applications in lightweight transport, energy technologies and biomaterials.

University of Wollongong

LE120100069 **Wang, Prof Xiaolin; Dou, Prof Shi Xue; Peleckis, Dr Germanas; Ye, Prof Lin; Zhang, Dr Tianshu; Martyniuk, Dr Mariusz; Zhang, Prof Chao; Yi, Dr Jiabao; Yeoh, Dr Wai Kong; Umana-Membreno, Dr Gilberto A; Lewis, Prof Roger A; Zhang, Dr Yuebin; Ulrich, A/Prof Clemens**

Approved Project Title **A complete thermo-electric characterisation facility for exploration of novel materials and devices at high temperatures**

2012	$200,000.00
Total	**$200,000.00**

Primary FoR 0912 MATERIALS ENGINEERING

Partner/Collaborating Eligible Organisation(s)

The University of New South Wales, The University of Sydney, The University of Western Australia

Administering Organisation University of Wollongong

Project Summary

This high temperature materials' characterisation facility will be the most advanced measurement setup of its kind in Australia. The unique features of the equipment and its high versatility will substantially enhance national research capabilities in functional materials, metal engineering, manufacturing engineering, chemistry, and physics.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

0914 RESOURCES ENGINEERING AND EXTRACTIVE METALLURGY

Monash University

LE120100117	**Ranjith, A/Prof Pathegama G; Airey, A/Prof David W; Sandiford, Prof Michael A; Hand, Prof Martin P; Cruden, Prof Alexander R; Sanjayan, Prof Jay G; Hebblewhite, Prof Bruce K; Webster, Prof Rachel L; Xu, Dr Chaoshui; Liyanapathirana, Dr Samanthika; Viete, Dr Daniel R; Wilson, Prof John L; Bouazza, Prof Abdelmalek; Haque, Dr Asadul; Oh, Dr Erwin Y; Halgamuge, Prof Saman K; Rasul, A/Prof Mohammad G; Leo, A/Prof Chin J**
Approved Project Title	**An advanced, macro-scale, hydro-thermo-mechanical testing chamber for sustainable deep geological applications**
2012	$940,000.00
Total	**$940,000.00**

Primary FoR 0914 RESOURCES ENGINEERING AND EXTRACTIVE METALLURGY

Partner/Collaborating Eligible Organisation(s)

Central Queensland University, Griffith University, Swinburne University of Technology, The University of Adelaide, The University of Melbourne, The University of New South Wales, The University of Sydney, University of Western Sydney

Administering Organisation Monash University

Project Summary

The Advanced Macro-scale Testing Chamber (AMTC) is a novel laboratory testing device capable of recreating deep geological conditions which can occur at depths of up to 13km underground. The AMTC will help scientists and engineers understand the Earth's behaviour during deep geological activities such as geothermal energy collection, pollutant disposal, underground mining and earthquake modelling.

The University of New South Wales

LE120100162	**Arns, A/Prof Christoph H; Cinar, Dr Yildiray; Bedrikovetski, Prof Pavel; Waite, Prof Trevor D; Hunter, Dr Mark W**
Approved Project Title	**Integrated 2MHz Nuclear Magnetic Resonance high temperature tri-axial flow cell apparatus**
2012	$150,000.00
Total	**$150,000.00**

Primary FoR 0914 RESOURCES ENGINEERING AND EXTRACTIVE METALLURGY

Partner/Collaborating Eligible Organisation(s)

Victoria University of Wellington
The University of Adelaide

Administering Organisation The University of New South Wales

Project Summary

The development of an integrated facility for petrophysical measurements allows the efficient use of expensive rock cores from gas or liquid reservoirs to develop reliable cross-correlations at conditions encountered in real reservoirs. The equipment is optimised for applications to unconventional reservoirs like Australia's gas resources, in particular coal-bed methane reservoirs and gas reservoirs where gas is difficult to extract.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

The University of Western Australia

LE120100095	**Sampson, Prof David D; Regenauer-Lieb, Prof Klaus; Fusseis, Dr Florian; Johns, Prof Michael L; Iglauer, Dr Stefan; Barnes, Dr Stephen J; Trinajstic, Dr Katherine M; Murphy, A/Prof Daniel V; Clennell, Dr Michael B; Xie, Dr Zonghan; Dixon, Prof Kingsley W**
Approved Project Title	**High-resolution X-ray micro computed tomography supporting West Australian geo-, physical and biological science**
2012	$620,000.00
Total	**$620,000.00**

Primary FoR 0914 RESOURCES ENGINEERING AND EXTRACTIVE METALLURGY

Partner/Collaborating Eligible Organisation(s)

Commonwealth Scientific and Industrial Research Organisation, WA Botanic Gardens and Parks Authority
Curtin University of Technology, Edith Cowan University

Administering Organisation The University of Western Australia

Project Summary

An X-ray micro computed tomography facility will provide West Australian researchers with much needed access to cutting-edge instrumentation for high-resolution three-dimensional imaging. This facility will support major research programs in key disciplines, including minerals and mining, energy, medical and biological sciences.

University of South Australia

LE120100209	**Addai-Mensah, Prof Jonas; Skinner, Prof William M; Zanin, Dr Massimiliano; Ngothai, Dr Yung M; Grano, Prof Stephen R**
Approved Project Title	**Multi-purpose facility for enhanced complex ore beneficiation and waste material recycling**
2012	$150,000.00
Total	**$150,000.00**

Primary FoR 0914 RESOURCES ENGINEERING AND EXTRACTIVE METALLURGY

Partner/Collaborating Eligible Organisation(s)

The University of Adelaide

Administering Organisation University of South Australia

Project Summary

This facility will provide new separation equipment that exploits differences in physical-chemical characteristics and behaviour of multi-component minerals and industrial waste. The facility will be used to develop new methods to beneficiate or upgrade low grade mineral ores and materials. Research to be conducted at this facility will lead to improved and sustainable methods which will assist in processing, recycling and reusing most of the non-metal and metal waste materials.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

1005 COMMUNICATIONS TECHNOLOGIES

The University of Melbourne

LE120100124	**Shieh, A/Prof William; Eggleton, Prof Benjamin J; Tucker, Prof Rodney S; Nirmalathas, Prof Ampalavanapillai; Lim, A/Prof Christina; Skafidas, Prof Efstratios S; Pelusi, Dr Mark D; Schröder, Dr Jochen B; Austin, Prof Michael W; Nguyen, Dr Thach G; Bui, Dr Lam A**
Approved Project Title	**Coherent detection based characterisation facility for ultra broadband photonic and RF systems**
2012	$300,000.00
Total	**$300,000.00**

Primary FoR 1005 COMMUNICATIONS TECHNOLOGIES

Partner/Collaborating Eligible Organisation(s)

RMIT University, The University of Sydney

Administering Organisation The University of Melbourne

Project Summary

The new infrastructure will allow detection of ultrahigh-speed optical and wireless signals. The facility adopts coherent detection based technologies providing superior performance in resolution, sensitivity, and bandwidth. It will play an important role in supporting research activities to accommodate phenomenal Internet growth.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

1007 NANOTECHNOLOGY

Queensland University of Technology

LE120100121 **Yan, A/Prof Cheng; Adam, A/Prof Clayton J; Huang, A/Prof Han; Zou, Prof Jin; Peng, A/Prof Zhongxiao; Bell, Prof John M; Yarlagadda, Prof Prasad K; Clegg, Prof Richard E; Truss, A/Prof Rowan W; Will, A/Prof Geoffrey D; Hou, Dr Meng; Yin, Dr Ling; Watson, Dr Gregory S; Mathan, Dr Bobby Kannan; Duan, Dr Kai; Pang, Dr Geoffrey K**

Approved Project Title **An integrated system for characterisation of mechanical behaviour of bio- and nanomaterials at micro and nano scales in Queensland**

2012 $270,000.00

Total **$270,000.00**

Primary FoR 1007 NANOTECHNOLOGY

Partner/Collaborating Eligible Organisation(s)

Central Queensland University, James Cook University, The University of Queensland

Administering Organisation Queensland University of Technology

Project Summary

Australia's material sciences will benefit from a new integrated system capable of microforce and nanomechanical testing of biomaterials, polymers and thin films, medical devices and electronics at the micro and nano scales. This facility will support ground-breaking research. It will help promote strategic collaboration and ensure the competitiveness of related and emerging industries.

University of Wollongong

LE120100104 **Pereloma, Prof Elena; Dou, Prof Shi Xue; Hodgson, Prof Peter D; Wallace, Prof Gordon G; Wexler, Dr David; Murch, Prof Graeme E; Chen, Dr Zhixin; Timokhina, Dr Ilana; Beladi, Dr Hossein; Stanford, Dr Nicole; Cizek, Dr Pavel; Bhattacharyya, Dr Dhriti; Belova, Prof Irina V; Barbaro, Dr Frank J**

Approved Project Title **An aberration corrected analytical Transmission Electron Microscope for nanoscale characterisation of materials**

2012 $1,175,000.00

Total **$1,175,000.00**

Primary FoR 1007 NANOTECHNOLOGY

Partner/Collaborating Eligible Organisation(s)

Australian Nuclear Science and Technology Organisation, Blue Scope Steel Limited, Defence Materials Technology Centre
Deakin University, The University of Newcastle

Administering Organisation University of Wollongong

Project Summary

This new-generation scanning transmission electron microscope enables selective determination of atomic and chemical structure within sub-nanometre regions of materials. It will enable cutting-edge developments in nanotechnology, materials science and engineering; technologies which underpin progress in our modern society.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

1101 MEDICAL BIOCHEMISTRY AND METABOLOMICS

University of Tasmania

LE120100018	**Foote, Prof Simon J; Reid, Prof James B; Hilder, Prof Emily F; Gell, Dr David A; McGuinness, Dr David S**
Approved Project Title	**Purchase of a high resolution Nuclear Magnetic Resonance spectrometer with liquid chromatography module**
2012	$630,000.00
Total	**$630,000.00**

Primary FoR 1101 MEDICAL BIOCHEMISTRY AND METABOLOMICS

Partner/Collaborating Eligible Organisation(s)

Administering Organisation University of Tasmania

Project Summary

A high resolution Nuclear Magnetic Resonance spectrometer and liquids separation module will support Tasmanian research of international significance across the biological and medical sciences, chemistry and Tasmanian industries including profiling studies in human health, plant biology, molecular basis of disease and complex mixture analysis.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

1102 CARDIOVASCULAR MEDICINE AND HAEMATOLOGY

Monash University

LE120100043	**Jackson, Prof Shaun P; Nesbitt, Dr Warwick S; Mitchell, Prof Arnan; Cooper, Prof Mark E; Tovar, Dr Francisco**
Approved Project Title	**Development of an ultra-high speed spinning disk confocal micro-particle image velocimetry (PIV) platform for the investigation of cardiovascular disease**
2012	$330,000.00
Total	**$330,000.00**

Primary FoR 1102 CARDIOVASCULAR MEDICINE AND HAEMATOLOGY

Partner/Collaborating Eligible Organisation(s)

Baker IDI Heart and Diabetes Institute
RMIT University

Administering Organisation Monash University

Project Summary

This facility will establish a microscope system specifically designed to investigate the function of blood cells in the context of cardiovascular diseases such as heart attack and stroke.

The University of Newcastle

LE120100082	**Foster, Prof Paul S; Gibson, Prof Peter; Aitken, Prof Robert J; Smith, Prof Roger; Scott, Prof Rodney J**
Approved Project Title	**FACSAria III - Fluorescence activated cell sorter**
2012	$180,000.00
Total	**$180,000.00**

Primary FoR 1102 CARDIOVASCULAR MEDICINE AND HAEMATOLOGY

Partner/Collaborating Eligible Organisation(s)

Administering Organisation The University of Newcastle

Project Summary

Flow cytometry is a technique for counting and examining microscopic particles, such as cells and chromosomes, by suspending them in a stream of fluid and passing them by an electronic detection apparatus. The FACSAria III cell sorter will be used to establish a core facility for sorting cells. The outcomes from using this technology are a better understanding cellular and genetic understanding of cancer, respiratory diseases, reproduction and birth.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

1112 ONCOLOGY AND CARCINOGENESIS

The University of New South Wales

LE120100091	**Crossley, Prof Merlin; Ward, Prof Robyn L; Kelleher, Prof Anthony D; Gunning, Prof Peter W; Haber, Prof Michelle; King, Prof Nicholas J; Sedger, Dr Lisa M; Martiniello-Wilks, Dr Rosetta**
Approved Project Title	**A five laser multichannel flow cytometry cell sorter for the University of New South Wales as part of an advanced flow cytometry network.**
2012	$250,000.00
Total	**$250,000.00**

Primary FoR 1112 ONCOLOGY AND CARCINOGENESIS

Partner/Collaborating Eligible Organisation(s)

The University of Sydney, University of Technology, Sydney

Administering Organisation The University of New South Wales

Project Summary

Flow cytometry is a technique for counting and examining microscopic particles, such as cells and chromosomes, by suspending them in a stream of fluid and passing them by an electronic detection apparatus. This project will establish such advanced cell sorting instrumentation at the University of New South Wales, providing this capability to a wide range of researchers in diverse fields. The project will also provide a basis for establishing a flow cytometry network with partner institutes University of Sydney and the University of Technology, Sydney.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

1701 PSYCHOLOGY

The University of Sydney

LE120100177	**McGregor, Prof Iain S; Simpson, Prof Stephen J; Shannon Weickert, Prof Cynthia; Kassiou, Prof Michael; Copeland, Prof Jan; Solowij, Dr Nadia; Codd, Dr Rachel; Arnold, Dr Jonathon C; Karl, Dr Tim; Long, Dr Leonora E**
Approved Project Title	**A flexible high throughput analytical system for psychopharmacology and drug discovery**
2012	$150,000.00
Total	**$150,000.00**
Primary FoR	1701 PSYCHOLOGY

Partner/Collaborating Eligible Organisation(s)

The University of New South Wales, University of Wollongong

Administering Organisation The University of Sydney

Project Summary

A sensitive new liquid chromatography mass spectrometer will enable a team of leading researchers to detect drugs of abuse and therapeutic drugs in the brain and body as well as levels of hormones, peptides and neurotransmitters. This will enhance a large number of projects examining new treatments for addictive disorders and mental illness.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

1801 LAW

University of Technology, Sydney

LE120100062	**Mowbray, Prof Andrew S; Greenleaf, Prof Graham W; Ford, Dr Lisa M; Nettelbeck, Prof Amanda E; Grantham, Prof Ross B; Twomey, A/Prof Anne F; Finnane, Prof Mark J; Williams, Prof John M; Buck, Prof Andrew R; Kercher, Prof Bruce R; Adams, Prof Michael A; Foster, A/Prof Robert K; Petrow, A/Prof Stefan; Bond, Dr Catherine M; Dorsett, A/Prof Shaunnagh G; Lunney, Prof Mark D; McDermott, A/Prof Peter M; Prest, Em/Prof Wilfrid R; Jones, Ms Judith S; Irving, Prof Helen D; Otlowski, Prof Margaret F; Peterson, Mr Naish**
Approved Project Title	**The Australasian Legal History Library: Creating historical depth in legal data on AustLII, to improve all legal research**
2012	$330,000.00
Total	**$330,000.00**
Primary FoR	1801 LAW

Partner/Collaborating Eligible Organisation(s)

Australian Law Librarians Association
Griffith University, Macquarie University, The Australian National University, The University of Adelaide, The University of New South Wales, The University of Queensland, The University of Sydney, University of Tasmania, University of Western Sydney

Administering Organisation University of Technology, Sydney

Project Summary

The Australasian Legal History Library, to be located for free access on AustLII, will provide comprehensive legislation and case law from all colonies (subsequently Australian States, Territories or New Zealand) up to 1950. Its citator will show how these historical materials are used in current legal decisions. It will be a revolution for legal history research.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

1901 ART THEORY AND CRITICISM

The University of New South Wales

LE120100056	**Harley, Prof Ross R; Bennett, Prof Jill; Anderson, Prof Jaynie L; Ledbury, Prof Andrew M; Verhoeven, Prof Deb; McNeil, Prof Peter K; Edquist, Prof Harriet; Schmidt, Prof Heinrich W; Friedman, Prof Ken; Sierra, Prof Marie A; Speck, A/Prof Catherine M; Mendelssohn, A/Prof Joanna; Thomas, A/Prof Paul; Biddle, Dr Jennifer L; White, Dr Anthony G; De Lorenzo, Dr Catherine M; Callaway, Dr Anita J; Chan, Mr Sebastian R**
Approved Project Title	**Design and Art Australia Online: Sustainable data sharing for Australian researchers and collections**
2012	$240,000.00
Total	**$240,000.00**

Primary FoR 1901 ART THEORY AND CRITICISM

Partner/Collaborating Eligible Organisation(s)

Museum of Applied Arts and Sciences (Powerhouse)
Curtin University of Technology, Deakin University, RMIT University, Swinburne University of Technology, The University of Adelaide, The University of Melbourne, The University of Sydney, University of Tasmania, University of Technology, Sydney

Administering Organisation The University of New South Wales

Project Summary

This project will produce a comprehensive and authorative research facility of national and international significance. The enhanced Design and Art Australia Online facility will provide crucial information pertaining to Australia's art and design heritage that will be open for researchers of all levels, from school students through to higher-education researchers.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

2003 LANGUAGE STUDIES

Charles Darwin University

LE120100016 **Christie, Prof Michael; Simpson, Prof Jane H; Devlin, A/Prof Brian C**

Approved Project Title **A living archive of Australian Indigenous languages**

2012	$430,000.00
Total	**$430,000.00**

Primary FoR 2003 LANGUAGE STUDIES

Partner/Collaborating Eligible Organisation(s)

NT Department of Education and Training
The Australian National University

Administering Organisation Charles Darwin University

Project Summary

A digital archive of endangered literature in more than 16 Australian Indigenous languages will be built in collaboration with the communities which own the languages, thereby enabling researchers to engage with texts (and related audiovisual files) as well as the Indigenous knowledge authorities for the languages.

Summary of Successful Proposals for Linkage Infrastructure, Equipment and Facilities for Funding Commencing in 2012 by Primary FoR Group

2005 LITERARY STUDIES

The University of Queensland

LE120100106	**Carter, Prof David J; Eggert, Prof Paul R; Ommundsen, Prof Wenche; Mead, Prof Philip; Mallan, Prof Kerry M; Taylor, A/Prof Cheryl M; Douglas, Dr Kate; Arnold, Mr John F; Leane, Dr Jeanine A; Minter, Dr Peter; Dale, Prof Leigh; Wilkins, Dr Kim; Ikin, A/Prof Van G; McMahon, Dr Elizabeth N; Burrows, Dr Toby N; Tompkins, Prof Joanne E; Moore, A/Prof Nicole R; Borchert, Mr Martin; Henderson, Dr Deborah J; O'Regan, Prof Thomas A; Troy, Dr Jakelin; Kilner, Ms Kerry M**
Approved Project Title	**Humanities in the digital age: infrastructure for Australian literary studies, publishing studies, and Aboriginal and Torres Strait Islander studies**
2012	$270,000.00
Total	**$270,000.00**
Primary FoR	2005 LITERARY STUDIES

Partner/Collaborating Eligible Organisation(s)

Australian Institute of Aboriginal and Torres Strait Islander Studies, James Cook University, Monash University, Queensland University of Technology, The Flinders University of South Australia, The University of New South Wales, The University of Sydney, The University of Western Australia, University of Wollongong

Administering Organisation The University of Queensland

Project Summary

AustLit is a comprehensive digital resource providing quality, searchable information for researchers, teachers, students and the general public in the broadly defined areas of Australian literature and print culture. New funding will support enhanced content creation and research capacity and the transition of AustLit to an open access platform.