

List of Major Australian Research Infrastructure

Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
Isotope & Organic Geochemistry Laboratory	E	Supports a range of research activities that contribute to improved understanding of Australia's petroleum resources. Aids risk assessment and promotes exploration investment, particularly in Australia's offshore jurisdiction. Also contributes to research in marine environmental geoscience, to understanding the extent of human impacts on the coastal zone and to technique development in organic geochemistry.	AGSO	ACT	\$6,000,000
Australian National Seismic Imaging Resource	E	Strategically develop the national science and technology infrastructure in the field of seismic imaging of the Earth in order to help keep Australia at the leading edge of key technological developments.	AGSO	ACT	\$5,000,000
National Rock and Mineral Collection	E	Collection of rock types and stream sediments samples across Australia; mineral specimens of Australian and other world-wide ore and other deposits including display specimens, building stones and meteorites.	AGSO	ACT	\$200,000,000
Anglo-Australian Observatory	F	Enables astronomers to explore in detail some of the regions of the sky not achievable from Northern Hemisphere telescopes, including the centre of the Milky Way Galaxy and the Magellanic Clouds. Some of the finest globular clusters and nearest radio galaxies can only be seen with difficulty from northern latitudes.	Anglo-Australian Telescope Board	NSW	\$60,000,000
Access for Australian researchers to ISIS neutron and muon source	F	Financial support for Australian access to the world's most intense neutron source, ISIS in the UK. ISIS is used in physics, chemistry, materials science, geology, engineering and biology research.	Australian Institute of Nuclear Science & Engineering (AINSE)	UK	not a capital-type investment
Australian National Tandem Accelerator for Applied Research	F	Used for materials characterisation and environmental research using ion beam analysis, accelerator mass spectrometry and isotopic methods, e.g. for research related to climate change, archaeology, heritage, biology and materials science.	ANSTO	NSW	\$10,000,000

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Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
High Flux Australian Reactor (HIFAR)	F	Research, production of radiopharmaceuticals and industrial radioisotopes, and industrial analysis and services. Research functions include neutron scattering to learn how new materials can be fabricated; and development of new radiopharmaceuticals.	ANSTO	NSW	Being replaced with OPAL (see below)
OPAL reactor	F	A multipurpose facility for radioisotope production, irradiation services and neutron beam research. Areas of research additional to those using HIFAR include the structure of biological matter.	ANSTO		More than \$330m
Australian Synchrotron Research Program	F	Provide Australian scientists with access to state-of-the-art synchrotron radiation research capabilities at overseas synchrotron light source facilities.	ANSTO ANU Monash University UNSW University of Queensland University of Melbourne University of Newcastle University of South Australia University of Western Australia Curtin University of Technology State Govts of NSW, Vic & Qld	Japan, USA, Taiwan	\$47,424,000
Access to Major Research Facilities Program.	F	Supports travel to access a major research facility not available in Australia or to attend overseas strategic planning meetings to secure access to a major research facility	ANSTO	Overseas	not a capital-type investment
Australian National Seismic Imaging Resource	E	Strategically develop the national science and technology infrastructure in the field of seismic imaging of the Earth in order to help keep Australia at the leading edge of key technological developments.	ANU and GeoScience Australia	ACT	\$5,000,000

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AREN Regional Light Up	SY	Connecting to AREN of up to 36 institutional sites in regional areas (South-east Queensland, NSW, Central and Western Victoria and Kalgoorlie).	ANU	ACT	\$1,900,000
Australian National University Supercomputer Facility	SY	Provides advanced computing support to computational scientists and engineers as well as to researchers in the humanities and social sciences that have a need for advanced visualization and large data set management.	ANU	ACT	\$10,000,000

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Australian Partnership in Advanced Computing (APAC) 2004-2006	SY	Advanced computing and grid infrastructure to support eResearch in Australia.	ANU Charles Sturt University Macquarie University University of Newcastle UNSW University of Sydney University of Technology, Sydney University of Western Sydney University of Wollongong Central TAFE Curtin University of Technology University of Western Australia Central Queensland University Griffith University James Cook University	ACT	\$29,000,000

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Australian Co-operative Supercomputer Facility - incl Parallel Computing initiative & Mass Data Storage	SY	Support computational science and engineering through the provision of both high performance computing (HPC) infrastructure and expertise.	ANU	ACT	\$4,142,000
Australian National University Laser Centre	F	CW lasers with very high spectral resolution for spectroscopy to high peak power pulsed laser for non-linear optics and laser resolution.	ANU	ACT	\$6,000,000
Mount Stromlo & Siding Spring Observatories	F	Advancement of the observational and theoretical frontiers of astronomy and its enabling technologies.	ANU UNSW Swinburne University of Technology Monash University University of Sydney University of Melbourne, Auspace Ltd	ACT and NSW	\$29,579,000
SHRIMP Sensitive High Resolution Ion Microprobe Laboratories	E	A high precision Secondary Ion Mass Spectrometer (SIMS). Ion microprobes make in situ isotopic and chemical 'surface' analysis of solid targets by bombarding the sample with an ion beam with a diameter of several microns typically employing Kohler focussing. Applications include: zircon dating in copper-uranium-gold-silver deposits, uranium-lead dating of sulphur in the sulphide minerals that form metal ores, the isotopic composition of sulphur in the giant base metal ore bodies.	ANU	ACT	\$10,000,000

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National Plasma Fusion Research Facility (H-1NF)	F	Houses the H-1 heliac, a university based toroidal magnetic confinement device for high temperature plasma studies, operated by the Australian Fusion Research Group. Focus is on fusion as future energy source.	ANU	ACT	\$28,935,000
Metal Organic Chemical Vapour Deposition Reactor for the Growth of III-V Compound Semiconductors	F	Chemical vapour deposition or CVD is a generic name for a group of processes that involve depositing a solid material from a gaseous phase.	ANU	ACT	\$1,100,000
800 MHz NMR Spectrometer for Molecular Structure-Function Analyses	H F	Assists with the study of proteins, protein-ligand complexes and other biomolecular systems of molecular weight >30,000.	ANU	ACT	\$1,584,000
Transmission Electron Microscope	H F	Allows the user to determine the internal structure of materials, either of biological or non-biological origin.	ANU	ACT	\$1,210,000
Australian Phenomics Facility	H F E	Facilities, technologies, resources and expertise for analysing connections between mammalian genes and physiological processes.	ANU Monash University Institute of Molecular Bioscience (University of Queensland) Garvan Institute of Medical Research	ACT	\$44,791,000
Australian Phenome Bank	F H	A frozen sperm bank, database, and training program to enable access by the research community to new strains of genetically modified mice.	ANU Monash University	ACT	\$1,500,000

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Heavy Ion Accelerator Facility	F H	Supplies high energy ions for a variety of purposes ranging from studies on the structure of the nucleus, interactions between nuclei, materials science, global climate change, bio-medicine and archaeology. Includes Superconducting Booster Linear Particle Accelerator (LINAC)	ANU	ACT	\$50,000,000
High Bandwidth Research Link with the United States of America	SY	A high bandwidth (dual 10Gbps) trans-Pacific link to transmit research and education traffic for an initial period of five years with an option to extend the arrangement for a further 5 years.	ANU All Australian universities consortium of USA based universities led by the University of Hawaii CSIRO AARNet	ACT	\$16,400,000
Access for the Higher Education and Research Sectors to the Nextgen Network	SY	Access to two fibre pairs on the NextGen network for the Australian higher education sector and wider research community.	ANU All Australian universities CSIRO AARNet	ACT	\$25,000,000
Arafura-Timor Research Facility	E	Research into marine and coastal ecosystems of the Arafura Timor region, including living and non-living resources and support regional social science research.	ANU Australian Institute for Marine Science (AIMS)	NT	\$12,290,000
Noel Butlin Archives Centre	F	A nationally significant collection of primary source material relating to business and labour	ANU	ACT	ongoing funding of c \$300,000 pa
Library holdings relating to Asia-Pacific	S	Paper and electronic holdings of world significance relating to the Asia-Pacific accessed by scholars around the world.	ANU	ACT	n/a

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Towards an Australian Partnership for Sustainable Repositories	SY	Developing services to evaluate the technologies and standards associated with digital curation and act as a national centre of expertise.	ANU University of Queensland Sydney University National Library of Australia Australian Partnership in Advanced Computing	ACT	\$2,574,500
South Australian Museum	E	Natural history museum collection, housing approximately 4 million specimens of state, national and international significance including geology, palaeontology and zoology. The third largest wildlife tissue bank in the world. Supports a wide range of collections based taxonomic and biomolecular research activities that contribute to improved understanding of the biodiversity and evolutionary history of Southern Australia with particular strengths in arid zone and southern oceans research. Supports research in many applied scientific disciplines including: planning and natural resource development, biodiversity and bioregional studies; ecological and environmental studies; wildlife conservation; genetics and biodiscovery; health science; and research on agricultural and other introduced pests.	Arts SA	SA	\$101,000,000
RSV Aurora Australis	E	Ice- breaking research vessel, operated on behalf of the Australian Antarctic Division by P&O Polar. It is equipped for a wide range of biological and oceanographic research applications and can operate in Antarctic waters.	Australian Antarctic Division	TAS	\$18,000,000

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National neutron scattering facility (1992 via University of Wollongong, 1994 James Cook University)	F	Neutron scattering is a prime tool for the investigation of magnetism in materials. Applications are presently applied to a wide range of fields including plastics, minerals, welds, pharmaceutical products, electronic materials, biology, catalysts and magnets.	Australian Institute of Nuclear Science & Engineering	NSW	\$1,504,000
Accelerator facility for environment, archaeology and heritage, biology and materials science	F	The accelerator supports the continuation and expansion of existing opportunities in key research areas in environmental science and geology, heritage and archaeology, biology and materials science.	Australian Institute of Nuclear Science & Engineering	NSW	\$1,000,000
Access for Australian Researchers to Advanced Neutron Beam Techniques	F	Support for Australia's partnership with the world's most intense neutron source, ISIS in the UK. ISIS supports scientists who use neutrons and muons for research in physics, chemistry, materials science, geology, engineering and biology.	Australian Institute of Nuclear Science & Engineering	NSW	\$1,460,000
The Bandwidth Foundry	F	Provision of prototype foundry services based on new generation technology platforms for manufacturing photonic integrated chips.	Australian Photonics CRC NSW State Govt Australian Photonics P/L	NSW	\$24,230,000
The Australian Academic Research Network AARNet (via ANU)	SY	High-capacity Internet services to the education and research communities and their research partners.	Australian Vice-Chancellors Committee	ACT	\$2,200,000

Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
Darwin Climate Monitoring Research Station	E	Core areas of research are numerical modelling and long-range forecasting with a focus on Australasia, tropical meteorology, and meteorological observing systems. Research groups include: mesoscale meteorology, regional meteorology, medium-range prediction, climate, climate change modelling, and oceanography.	Bureau of Meteorology Monash University	NT	\$5,000,000
Atmosphere Watch Section	E	To provide high quality special climate- and environment-related observational data for the Australian region for information, monitoring, prediction and research purposes and for other specialised applications, and to ensure excellence in the performance and utility of all of the Bureau's surface meteorological instrumentation through laboratory support services.	Bureau of Meteorology Monash University	ACT	\$6,000,000
155 Mbps Link Between AARNet Pop at Adelaide and Charles Darwin University	SY	Improved bandwidth for institutions in the Northern Territory and a connection back to AREN.	Charles Darwin University	NT	\$2,400,000
Access to the Australian Research and Education Network	SY	Contribution towards the cost of accessing the AREN particularly for the Wagga Wagga and Bathurst campuses.	Charles Sturt University	NSW	\$1,060,000
Cell Bank Australia	H	A cell culture facility that will enable the establishment of a national repository of quality-controlled vertebrate cell lines.	Children's Medical Research Institute (New South Wales)	NSW	\$1,250,000

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FEDSAT	F	Research satellite carrying magnetometer instrument (space weather research), GPS instrument (space weather research, spacecraft attitude control, positioning experiments) telecommunications payload Ka band propagation, UHF store and forward experiments) computing payload (reconfigurable space computing research). Space science, satellite communications, satellite engineering and satellite systems research.	CRC for Satellite Systems , University of South Australia CSIRO QUT UTS University of Newcastle AuspaceLtd Vipac Engineers & Scientists Ltd	in orbit	\$25,000,000
Fire Test Facilities	S	A facility for research on fire in enclosures, smoke generation and smoke movement in buildings, ships, tunnels, etc.	CSIRO	NSW	\$16,000,000
Australia Telescope National Facility (ATNF)	F	Supports Australia's research in radio astronomy. The ATNF operates the Australia Telescope which consists of the Compact Array at Narrabri and the Parkes and Mopra radio telescopes. These telescopes can be used together as a long baseline array for use in Very Long Baseline Interferometry.	CSIRO	ACT	\$135,000,000

Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
Gemini and Square Kilometre Array (SKA)	F	Provide access to the two Gemini 8m telescopes and a supercomputer for advanced SKA simulations. Develop the widebanded Australian Telescope Compact Array, upgrade the Molonglo radio telescope, and construct a new technology demonstrator radio telescope.	CSIRO University of Sydney ANU Swinburne University UNSW University of Melbourne WA State Govt Anglo Australian Observatory Advanced Powder Technologies P/L CEA P/L Dell Computer P/L	NSW	\$43,960,000
National Measurement Laboratories	SY	A facility for the maintaining and development of Australian standards of measurement, the development of calibration, testing and certification of gauges and measuring instruments and the provision of primary standards for length, mass, time, electrical	CSIRO National Measurement Institute (NMI)	NSW/Vic/WA	\$115,000,000
Controlled Environment Facility	E	Facility for biology contains 14 growth rooms (about 100 sqm of floor space) that provide unique control of environmental parameters such as temperature, humidity, light intensity and carbon dioxide concentrations.	CSIRO	ACT	\$18,000,000
CSIRO Entomology Quarantine Network	S	Containment facilities at levels PC2-PC4, in the tropics (Brisbane), the temperate zone (Canberra), and the Mediterranean zone (Perth), for risk assessment and screening of imported organisms.	CSIRO	ACT	\$41,000,000

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Australian National Herbarium (ANH)	E S	Houses a collection of 1.3 million plant specimens, documenting the diversity of the Australian flora. With specimens dating back to Captain Cook's 1770 expedition, the Herbarium's comprehensive collections allow for the reliable identification of plants originating from field studies and the extraction of ecological data.	CSIRO	ACT	\$53,000,000
Australian National Insect Collection (ANIC)	E S	The world's largest collection of Australian insects and related groups such as mites, spiders, worms and centipedes. The resources and knowledge within ANIC contribute to areas such as: evolutionary biology, taxonomy, natural resource management, understanding ecosystems and biodiversity, quarantine issues and biogeographic studies.	CSIRO	ACT	\$150,000,000
Australian Animal Health Laboratory (AAHL)	S	National centre of excellence in disease diagnosis, research and policy advice in animal health. One of the most sophisticated laboratories in the world for the safe handling and containment of animal diseases AAHL plays a vital role in maintaining Australia's capability to quickly diagnose exotic and emerging animal diseases.	CSIRO	ACT	\$543,000,000
ORV Franklin	E	Highly manoeuvrable 55m oceanographic research vessel. Extensive wet and dry laboratories, scientific winches and Aframes (aft and beam) for deploying, profiling and sampling instruments and equipment. Medium range and duration.	CSIRO	ACT	\$19,000,000
FRV Southern Surveyor	E	66m fisheries and oceanography research vessel with well equipped wet and dry laboratories, scientific and trawl winches, heavy lifting capacity and A-frame for profiling and sampling instruments.	CSIRO	ACT	\$21,000,000
Upgrade of Australia Telescope National Facility and University of Tasmania Radio Astronomy Facilities	F	High-frequency upgrades to the Australia Telescope Compact Array, Very Long Baseline Interferometry upgrade.	CSIRO University of Tasmania	NSW	\$11,297,000

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A SHRIMP Ion Microprobe Facility for Earth Sciences	E	A Sensitive High Resolution Ion Microprobe SHRIMP II facility and develop the facility to work with stable isotopes.	Curtin University of Technology University of Western Australia AGSO-Geoscience Australia	WA	\$3,400,157
Advanced Materials Manufacturing and Performance Centre	F	A nano tube filament extrusion unit, a Quickstep composite manufacturing apparatus and an advanced formability tester.	Deakin University	VIC	\$1,685,000
Explosive Ordnance Experimental Complex	S	F Testing and development of leading-edge weapons systems technology. Comprises a complex of energetic materials processing and testing laboratories, including firing chambers, ballistics tunnel, flare tunnel, rocket motor conditioning and static firing site, with research capabilities in a range of energetics areas.	DSTO	ACT	\$25,000,000
Low Speed Wind Tunnel	F	The tunnel operates at atmospheric pressure. It has a continuous flow closed return circuit which is used to carry out research and a range of types of aerodynamic tests on aircraft and missile models at speeds up to 100 m/sec in a test section 2.7m wide by 2.1m high. The tunnel can also be used for industrial aerodynamic research and testing.	DSTO	ACT	\$5,000,000
Air Operations Simulation Centre (AOSC)	F	Reconfigurable air operations research simulation complex. Simulation centre for human factors experiments, the analysis of equipment options, operational planning and research, and the development of cost effective training technologies.	DSTO	ACT	\$9,000,000
Systems Simulation Centre	F	Hardware-in-loop testing laboratory capable of: generating radio frequency and infrared scenes; simulating aerodynamic motion of a system on 5 axis rate table; processing of system parameters through high power real time simulation computers.	DSTO	ACT	\$30,000,000

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National Networked Teletest Facility	F	Provision of engineering, pre-production test and characterisation services for integrated circuit (IC) designs.	Edith Cowan University Griffith University Victoria University University of Western Australian University of Adelaide Australian Microelectronics Network University of Sydney University of New South Wales	WA	\$13,380,000
Airborne Research Australia	F	Airborne research facility consisting of instrumented aircraft and associated infrastructure (eg data acquisition and real-time processing systems).	Flinders University Monash University	SA	\$28,729,000
South Australian Broadband Research and Education Network (SABRENet)	SY	An 80km north-south high-speed metropolitan network connecting all major university campuses, teaching hospitals, South Australian government research facilities, the CSIRO and the Defence Science and Technology Organisation in South Australia and high-speed access to the rest of Australia and internationally through its links into the AREN.	Flinders University University of South Australia University of Adelaide South Australian Government CSIRO DSTO	SA	\$3,800,000

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Queensland Parallel Supercomputing	SY	Provides supercomputing facilities to the Central Queensland University, Griffith University, James Cook University, Queensland University of Technology, University of Queensland and University of Southern Queensland.	Griffith University Central Queensland University James Cook University Queensland University of Technology University of Queensland University of Southern Queensland	QLD	\$1,300,000
Queensland Research and Education Network - Sunshine Backbone Interim Stage 2	SY	Provision of an interim solution (for 3 years) for high bandwidth connections to the Sunshine backbone of AREN for campuses in five regional centres in Queensland (JCU Cairns, CQU Mackay and Gladstone, USC Sippy Downs and USQ Hervey Bay).	James Cook University	QLD	\$2,000,000

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Establishment of a 2.5 Gbps Backbone Network from Brisbane to Townsville - Phase One	SY	A 2.5 Gbps backbone from Brisbane to Townsville.	James Cook University Southern Cross University Griffith University Bond University Central Queensland University TAFE Queensland Queensland Health Queensland Regional Network Organisation	QLD	\$5,500,000
Marine Research and Education Network	SY	Marine research and training infrastructure along a 1200km network on the Great Barrier Reef and coastal Queensland including five island research stations.	James Cook University University of Queensland University of Sydney Great Barrier Reef Research Foundation	QLD	\$10,760,000
Molecular Beam Epitaxy Laboratory	F	Theoretical and Condensed Matter Physics / Atomic, Molecular, Nuclear, Particle and Plasma Physics / Acoustic and Optical Physics / Information Systems and Technologies / Communication Technologies.	La Trobe University	VIC	\$6,000,000
Advanced Surface Imaging and Spectroscopy Facility	F	Facilitates world-class research on the nature and behaviour of chemical, semiconductor, environmental, biological and industrial materials.	La Trobe University	VIC	\$1,100,000

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Australian Research Library Network	SY	Enabling the ARLIN portal prototype to be developed into a fully operational national system through development of software and functionality of the system and the purchase of software licences for 1000 research students and staff.	La Trobe University Australian Defence Force Academy Central Queensland University Curtin University of Technology Flinders University University of South Australia James Cook University Macquarie University Monash University Murdoch University Charles Darwin University Swinburne University of Technology University of Adelaide University of Ballarat	VIC	\$2,823,900
IMS Australia - Core Funding	SY	Inform key information infrastructure projects of technical specifications being adopted globally and ensure that Australia's concerns are addressed when technical specifications are developed.	Macquarie University	NSW	\$3,344,475

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Meta Access Management Systems Project	SY	Integration of multiple solutions to managing information flow between different kinds of data bases and address issues such as authentication, authorisation and identities, together with common services for digital rights, search services and metadata management.	Macquarie University University of Southern Queensland University of New England University of Tasmania University of Newcastle University of Western Australia Curtin University Edith Cowan University Murdoch University Notre Dame University INternet2/MACE Shibboleth' University of Ulster/Athens DA National Library of Australia Education.au	NSW	\$4,215,120

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Advanced Technology for a Clever Geoscience Future in Australia	E	High technology instruments for micro and nano analysis of solids and fluids in the geosciences and materials sciences.	Macquarie University University of Sydney University of Western Sydney University of Wollongong University of Newcastle WMC Australia De Beers Australia De Beers South Africa Advantage Geochemical Solutions Australian Minerals Industry Research Association	NSW	\$5,125,000
Australian Proteome Analysis Facility	F H	Provision of analytical services using new proteomics technologies to aid discovery of therapeutic, diagnostic and quality markers for pharmaceutical, biotechnology and agricultural industries	Macquarie University University of Sydney UNSW TGR Biosciences P/L	NSW	\$51,638,000
National Network of Brain Banks	H	A National Network devoted to storage and provision of carefully characterised brain tissue.	Mental Health Research Institute	VIC	\$2,000,000

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Aerodynamic Noise & Aerodynamic Loading Test Facility 1995 - Vehicle Dynamics/Aero Acoustics Test Facility (wind tunnel)	F	Allows for the testing of vehicles with respect to interior noise levels.	Monash University	VIC	\$5,000,000
Nanoscale Materials Characterization Facility	F	An ultra-high resolution Field Emission Gun Transmission Microscope (at Monash University) and a Field Emission Gun Scanning Electron Microscope (at RMIT) which can selectively analyse the atomic structure and chemistry of sub nanometre regions of material.	Monash University RMIT Other partners: Nano Vic (based at Monash) VCAMM CSIRO - Manufacturing and Infrastructure Technology La Trobe University Deakin University University of Melbourne CRC for Microtechnology	VIC	\$3,870,000

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Monash Centre for Electron Microscopy (MCEM)	F	This new state-of the art facility provides a suite of instrumentation, training, and expertise in electron microscopy and atom probe field ion microscopy for the characterisation of the atomic structure, composition and bonding of material to the atomic level. A purpose built centre has been commissioned by Monash University at a cost of \$10 million. The new centre will accommodate the FEG-TEM listed on row 76 above, which will be a key complementary facility to the Australian Synchrotron; a unique LEEM (Low Energy Electron Microscope) (\$1.3million, funded by Monash University - see below); the Atom Probe Microscope (see below); plus 5 other electron microscopes and supporting equipment.	Monash University	VIC	\$22,500,000
SAX (small angle x-ray facility)	F	The only one of its kind in Victoria and the best of its kind in Australia	Monash University	VIC	\$1,000,000
LEEM - Low Energy Electron Microscope with Molecular Beam Epitaxy Facility	F	Unique UHV low energy electron microscope for real time non-invasive study of surface and interface formation during MBE growth of III-V semiconductors	Monash University	VIC	\$1,450,000
Atom Probe Field Ion Microscope	F	Capable of 3 dimensional mapping of atom positions in material samples with atomic scale resolution. Principal applications in light alloys, nano structures including nano crystalline magnetic materials.	Monash University	VIC	\$1,500,000
Nanoscale Materials Characterization Facility	F	A transmission and a scanning electron microscope, each with specialist electron probes smaller than a nanometre, which can selectively analyse the atomic structure and chemistry of sub-nanometre regions of material.	Monash University	VIC	\$1,305,000

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Victoria Education and Research Network	SY	High performance network infrastructure for Victorian data-intensive research and higher education sectors.	Monash University Australian Catholic University Deakin University La Trobe University RMIT Swinburne University University of Melbourne University of Ballarat Victoria University of Technology Victorian State Government CSIRO	VIC	\$9,060,000
MNRF Division of the Australian Stem Cell Centre	H	Provision of facilities to enable development of platform technologies (eg cell culture methodologies, cell delivery systems) for use in stem cell research	Monash University University of Adelaide UNSW University of Queensland Peter MacCallum Cancer Institute Victorian Institute of Forensic Medicine	VIC	\$14,393,000

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Australian Research Repositories Online to the World	SY	A three-year collaborative project for the establishment of research output repositories, open-access journal publishing and associated resource discovery mechanisms.	Monash University UNSW Swinburne University National Library of Australia	VIC	\$3,660,000
Victorian Bioinformatics Consortium (VBC)	H	Assists the performance of biological research within Australia by both academic and industrial users. Collaborates with organisations and researchers interested in developing novel solutions for bioinformatics problems.	Monash University Victorian Department of Primary Industries	VIC	\$4,890,000
Advanced Driving Simulator	F H	To design and evaluate road safety products, programs and devices. Nationally accessible facility with scope for international collaboration. Most advanced simulator in the southern hemisphere. Facility consists of computer systems, a 3D audio system, a projection system and a PLC based control system.	Monash University	VIC	\$3,000,000
National DNA Repository for Male Infertility	H	Collection of 3,000 DNA samples from men with infertility and normal men used for the development of diagnostic tests for genetic causes of male infertility.	Monash University	VIC	\$350,000
National Small Primate Facility	H	Facility to accommodate small to medium primates and supporting laboratories for the biomedical research community nationally.	Monash University	VIC	\$2,000,000
National Primate Breeding and Research Facility	H	Based in Gippsland. National breeding of small to medium primates to support the biomedical research community nationally. Largest primate holding facility in Australia.	Monash University	VIC	\$9,000,000
Monash Central Animal House	H	Dedicated rodent breeding and research facility to service national biomedical research needs.	Monash University	VIC	\$13,000,000

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National Network of Medical Imaging Infrastructure for Research	H	Multi-centre high sensitivity/high resolution clinical (human) and pre-clinical (animal) imaging equipment infrastructure base accessible by the broad Australian research community, with appropriate nodes in all states. Modalities to include High Field MR (initially 3T full body), PET/CT, Multi-slice CT, Digital X-ray, Ultrasound, with access to cyclotron and radiochemistry facilities, and bioinformatics support. Common centralised management and operation of facilities.	Monash University Imaging Development Institute of Australia (IDIA) Ltd CRC for Biomedical Imaging Development and its participants Cyclotek Pty Ltd Clinical Imaging Centre Pty Ltd	VIC	\$15,000,000 (\$35,000,000 more to complete)
Rail Testing Laboratory	F	5 servo-hydraulic test rigs	Monash University	VIC	\$2,000,000
Centre for Drug Candidate Optimisation	H	undertakes collaborative lead optimisation research projects to produce optimised, high quality drug candidates. National and international activity.	Monash University	VIC	\$4,000,000
Monash Centre for Synchrotron Science	F	National centre to educate and train in the use of synchrotrons. Lack of relevant skills in Australia is a major impediment to synchrotron utilisation.	Monash University	Vic	\$2,000,000
Victorian Partnership in Advanced Computing (VPAC)	SY	Leading, independent Advanced Computing R&D service provider	Monash University RMIT Deakin Swinburne La Trobe University of Melbourne University of Ballarat	VIC	\$17,000,000

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Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
WA State Agriculture Biotechnology Centre	F	Facilities and equipment enabling multi disciplinary research in the agricultural and veterinary industry.	Murdoch University	WA	\$6,000,000
National Neurosciences Facility	H	Development of an integrated network of neuroscience research infrastructure and platform technologies.	Neuroscience Victoria (NSV) Howard Florey Institute Mental Health Research Institute Genomics Disorders Research Centre Melbourne Neuromuscular Research Centre Monash University	VIC	\$42,260,000
Australasian Biospecimen Network-Oncology	H	A national network to collect, process and disseminate tumour tissue.	Peter MacCallum Cancer Centre (Victoria)	VIC	\$1,750,000
Australian Prostate Cancer Collaboration (APCC) Bio-Resource	H	Network of prostate tissue banks and associated clinical databases.	Queensland University of Technology Monash University	QLD	\$2,100,000
Advanced Electron Microscopy and Microanalysis	F	An energy filtered transmission electron microscope (at RMIT) and a high resolution-high contrast analytical transmission electron microscope (at Monash see entry re MCEM).	RMIT Monash University	VIC	\$2,137,000

Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
Integrated Microfabrication Facility	F	Microfabrication laboratory with clean room facilities, thin film deposition and photolithography infrastructure and sample characterisation equipment.	Swinburne University RMIT	VIC	\$1,976,000
Provisor (formerly the National Wine Industry Research Cluster)	F	Provision of research support across all processes involved in producing wine.	The Australian Wine Research Institute University of Adelaide CSIRO South Australian Research and Development Institute	SA	\$10,871,000
Waite NMR Facility	E	Soil and water analysis, development of new techniques	University of Adelaide	SA	\$1,000,000
Earth & Environmental Sciences Soil Research Facilities	E	Analysis and data generation for Soils Research Programs	University of Adelaide	SA	\$1,500,000
Mawson Mass Spectrometry Facility	E	Geological, Environmental and Biological analysis	University of Adelaide	SA	\$1,500,000
Earth & Environmental Sciences Animal Research and Management	E	Support for animal research programs providing controlled environment spaces and to facilitate research in physiology and ecology	University of Adelaide, Royal Zoological Society of South Australia	SA	\$1,000,000
Evolutionary Biology and Biodiversity Facility	E	Infrastructure to support research for 3D imaging of small animals, Genetic analysis, fragmentary and ancient DNA analysis	University of Adelaide	SA	\$1,800,000

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Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
Earth & Environmental Sciences Field Research Fleet	E	Field modified vehicles to enable research, drilling rigs, plot seeders etc	University of Adelaide	SA	\$1,200,000
Earth & Environmental Sciences Field Research Station Network	E	Field stations at Koonamore, West Island, Coobowie, Coorong, Kangaroo Island	University of Adelaide	SA	\$1,500,000
Micromass ZAB 2HF	F	Infrastructure providing routine electron impact and fast atom bombardment, negative ion research, also atmospheric and interstellar chemistry	University of Adelaide	SA	\$2,000,000
Varian INOVA 600 NMR Spectrometer	H F	Determination of molecular structure (both chemical & biological); investigation of molecular dynamics in solution	University of Adelaide Flinders University University of South Australia	SA	\$1,500,000
Custom-built Chemistry Mass Spectrometer Facility	F	Determination of gas-phase molecular structure, energetics and reactivity	University of Adelaide	SA	\$2,000,000
Laser Chemistry Facility	F	Determination of gas-phase molecular structure, energetics and reactivity	University of Adelaide	SA	\$2,000,000
Cangaroo II Very High Energy Gamma-Ray Telescope	F	Enables scientists to make observations of radiation (gamma rays) from supernovas, pulsars and black holes	University of Adelaide University of Tokyo	SA	\$4,000,000
Adelaide Microscopy	F H	Adelaide Microscopy offers a broad range of the most technologically advanced instrumentation for microscopy and microanalysis	University of Adelaide	SA	\$17,000,000

Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
The Australian Centre for Plant Functional Genomics	E	Scientists at the ACPFG aim to develop cereal varieties with increased tolerance to environmental stresses such as temperature, drought, salinity and mineral deficiencies or toxicities.	University of Adelaide University of Melbourne Latrobe University University of Queensland	SA Vic Qld	\$55,000,000
Hikinbotham Roseworthy Wine Science Laboratory	F	Viticultural practices influencing grape and wine quality	University of Adelaide	SA	\$3,550,000
Laser Vibrometer Facility	F	Used in fundamental studies of vibratory and vibro-acoustic phenomena	University of Adelaide University of WA Monash University Flinders University University of South Australia	SA	\$1,100,000

Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
National T-Ray Facility	F	Experimentation on the properties and application of T-Rays	University of Adelaide Flinders University University of SA University of Sydney University of Qld Macquarie University ANU University of Wollongong Monash University Swinburne University University of WA Edith Cowan University Griffith University University of Melbourne NHEW R&D Pty Ltd	SA	\$1,350,000
Laser Diagnostics System	F	The research facility is used to conduct non-intrusive laser based experiments in flames, plasma and gas liquid flows at room temperature	University of Adelaide Monash University University of Sydney Newcastle University Curtin University	SA	\$1,100,000

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Biological Control Insectary Quarantine Facility	S	Infrastructure used for quarantine	University of Adelaide	SA	\$1,500,000
Containment Glasshouse Facilities	S	Used for controlled temperature experiments, contained environments (PC2), tissue culture, plant breeding and growth experimentation and control	University of Adelaide	SA	\$5,400,000
DNA Laboratory	H	Oligonucleotide and protein sequencing	University of Adelaide	SA	\$1,000,000
Adelaide Proteomics Facility	H	Core facility for SA researchers	University of Adelaide IMVS (Hansen Centre)	SA	\$7,000,000
National and SA Supercomputing Facilities includes: Hydra Orion Aquila Supercomputer	SY	High-performance computing research including particle physics	University of Adelaide University of Melbourne UNSW Flinders University UniSA	SA	\$1,920,000
Enhancement of the Regional Supercomputer Research Centre	SY	Provides supercomputing facilities to Australian researchers.	University of Melbourne	VIC	\$1,530,000
Support for Australian High Energy Physics at CERN	F	High Energy Particle Physics (HEP) explores the basic structure of matter and the fundamental forces in nature.	University of Melbourne	VIC Switzerland	\$1,303,000
Joint Facility for Food Animal Research	F	Animal holding facilities, surgery, and special purpose laboratories.	University of Melbourne	VIC	\$1,260,000

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Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
Australian Twin Registry	H	A volunteer registry of twins willing to participate in health research.	University of Melbourne	VIC	\$1,750,000
ARC Centre for Integrative Legume Research	F	The Centre has three main objectives; to understand how to control meristem differentiation and hence the general architecture of the plant; to isolate and characterise the novel molecules involved in intercellular communication between meristems; and to undertake a systems biology analysis of the model legumes describing the interacting gene networks, key metabolic pathways, and identify intellectual property for use in other legumes.	University of Melbourne Australian National University; University of Newcastle; University of Queensland	QLD	\$2,200,000
Forest Industries Advanced Wood Processing	F	"Forest Industries" undertakes research into advanced wood processing and manufacturing using microwave technology, new wood treatments, bio-mass utilisation using pyrolysis and chemical manipulation of bio-oils; environmental monitoring and impact; carbon cycling and sequestration in wood products, biodegradation (termite and fungi degradation of wood products); value adding and design of furniture components and timber engineering including wood bending.	University of Melbourne	VIC	\$5,000,000
Forest Molecular Biology Unit	F	Tree Developmental Biology and Forest Biotechnology contributes to developmental biology and the molecular basis of tree growth in general and cambial differentiation, wood formation, sapwood to heartwood transition, and environmental stress tolerance in particular. The global research effort is directed to the improvement of tree and wood characteristics and a cost-competitive forest industry.	University of Melbourne	VIC	\$2,000,000
Greenhouse Technical Unit	E	"Greenhouse and climate change research". The Greenhouse Technical Unit (GTU) investigates the processes and factors influencing carbon sequestration of afforested ecosystems in Victoria.	University of Melbourne	VIC	\$2,000,000

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Ecophysiology facility	E	"Tree ecophysiology": investigates how environmental factors affect life functions of trees such as photosynthesis, respiration, nutrient relations and water use. In many cases we investigate the responses of plants to sub-optimal environments and environmental factors such as drought, heat, frost, and salinity. Ecophysiological research underpins and refines process-based models of tree growth and predictions of climate change effects.	University of Melbourne	VIC	\$2,000,000
Electron microscope facility for the physical and life sciences	F	State-of-the-art electron microscopy facility for the physical and life sciences.	University of Melbourne	VIC	\$10,000,000
National Macaque Facility	F	The National Macaque Facility holds and breeds two species of macaques: <i>Macaca nemestrina</i> and <i>Macaca fascicularis</i> supported by the NHMRC to centralise breeding, provide a consistently high standard of animal care and management, and to allow access to non-human primates for research.	University of Melbourne	VIC	\$10,000,000
Mass spectrometry facilities	E	Mass spectrometry facilities to characterise new materials, to identify compounds and quantify known materials, and to explore the structure and properties of molecules.	University of Melbourne	VIC	\$5,000,000
Brownless Medical History Museum and Library	H	Medical history museum and library.	University of Melbourne	VIC	priceless
Australian National Creutzfeldt-Jakob Disease Case Registry (Pathology)	H	A case registry for Australian National Creutzfeldt-Jakob Disease.	University of Melbourne	VIC	\$5,000,000

Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
NMR spectroscopy facilities	H	Spectrometers of varying capacity for determining the structure and dynamics of small proteins.	University of Melbourne	VIC	\$10,000,000
Microbiological Diagnostic Unit (Microbiology)	H	The MDU is a public health laboratory focusing on microbiological diagnosis and surveillance including community health and preventative activities.	University of Melbourne	VIC	\$10,000,000
Tissue repositories/biobanks (Pathology, Medicine, Surgery)	H	Tissue repository	University of Melbourne	VIC	>\$10,000,000
Histology processing facilities (Pathology, Anatomy)	H	Resources to study the minute structure of tissues and organs in relation to their function	University of Melbourne	VIC	\$5,000,000

Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
International Livestock and Information Centre	S	High-speed communications and software services for management and analysis of large livestock datasets.	University of New England Beef CRC Sheep CRC Animal Genetics & Breeding Unit Agricultural Business Research Institute Veterinary Health Research Australian New Frontiers Institute for Rural Futures Breed Societies	NSW	\$9,000,000
Australian Computational Earth Systems Simulator	SY	Integrated software systems for multi-scale, multi-physics simulations and visualisation of earth systems, combined with thematic parallel supercomputer hardware required for 3-D earth simulations are applied to natural disaster mitigation, to planetary simulations and engineering applications	The University of Queensland Monash University University of Melbourne RMIT University of Western Australia ANU CSIRO Victoria Partnership for Advanced Computing (VPAC)	QLD (HQ), VIC, ACT, WA	\$21,760,000

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Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
Cryo-electron microscope facility	H	Elucidation of the structure of complex biological organelles and molecules.	The University of Queensland Nanostructural Analysis Network Organisation MNRF	QLD	\$4,200,000
Micro-analytical facility for South-east Queensland (Electron microprobe)	E	Quantitative elemental analysis of solid materials	The University of Queensland Queensland University of Technology	QLD	\$1,200,000
Queensland Parallel Supercomputing Foundation Ltd	SY	Provides supercomputing facilities to the University of Queensland along with Central Queensland University, Griffith University, James Cook University, Queensland University of Technology, and University of Southern Queensland.	The University of Queensland Griffith University Central Queensland University James Cook University Queensland University of Technology University of Southern Queensland	QLD	\$26,000,000
Centre for Advanced Light Microscopy (CALM)	F	CALM is a managed, multi-user facility offering confocal and multiphoton services to over 260 researchers across the University of Queensland, University of Southern Queensland, Griffith University, Queensland Department of Primary Industries and CSIRO.	The University of Queensland	QLD	\$2,100,000

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Flow Cytometry Centre	H	Dedicated managed neuroscience cell sorting facility. The facility is dedicated to harvesting homogeneous populations of stem cells and neurons from animal and human sources, providing the raw material needed for a vastly accelerated program of research into the use of stem cells for nervous system repair and regeneration.	The University of Queensland Griffith University QUT	QLD	\$1,500,000
Confocal Microscopy Facility - Institute for Molecular Bioscience	H	This facility allows high-resolution live cell and molecular imaging for investigations into the dynamics of cellular processing.	The University of Queensland	QLD	\$1,100,000
X-ray Diffraction Facility - Institute for Molecular Bioscience	H	X-ray diffraction is a key technology for determining the structures of molecules and is one of only two techniques available for determining the structures of proteins. These structures in turn provide the fundamental information used in drug design programs.	The University of Queensland	QLD	\$2,625,000
NMR Facility - Institute for Molecular Bioscience	H	NMR (nuclear magnetic resonance) is a key technology for determining the structures of molecules and is one of only two techniques available for determining the structures of proteins. These structures in turn provide the fundamental information used in drug design programs. Only NMR is capable of elucidating structures of macromolecules in aqueous solution.	The University of Queensland	QLD	\$2,970,000
Mass Spectrometry Facility - Institute for Molecular Bioscience	H	Mass spectrometers play a major role in the analysis, identification and characterisation of all molecules. This facility is used primarily by chemists, biochemists and protein chemists.	The University of Queensland	QLD	\$3,300,000
High field NMR Facility - Centre for Magnetic Resonance	H	Provision of high resolution, solid state NMR and animal MRI facilities 750MHz, 500MHz, 300MHz, 190MHz spectrometers	The University of Queensland Queensland University of Technology	QLD	\$4,540,000

Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
Clinical MRI Research Facilities Centre for Magnetic Resonance	H	High field MRI and clinical MRI scanners 4T Seimens Sonata 1.5T Siemens Sonata (2) 2T Bruker Medspec	The University of Queensland The Wesley Hospital Technology The Royal Brisbane Hospital	QLD	\$10,000,000
EPR Facility - Centre for Magnetic Resonance	F	Multifrequency CW and Pulsed EPR/ENDOR	The University of Queensland Queensland University of Technology	QLD	\$1,300,000
MR Microimaging Facility - Centre for Magnetic Resonance	F	MR imaging and microscopy of small animals, materials, plants 400MHz 8.9cm, 300MHz 15cm	The University of Queensland	QLD	\$1,600,000
Queensland NMR Network	H	High field NMR systems for structural biology, biodiscovery and animal neuroimagnng 900MHz high-resolution, 700MHz microscopy , 600 MHz LC-NMR and cryoprobe , 400MHz high resolution systems	The University of Queensland Queensland University of Technology Griffith University	QLD	\$18,000,000
Radiogenic Isotope Geochemistry Facility	E	The major function of this facility is to provide high-precision multi-element and radiogenic isotope analysis of geological and environmental materials to a large internal and external client base mainly in universities, but also in public/private sectors.	The University of Queensland	QLD	\$4,500,000
Hypersonic Testing Facilities Laboratory	F	Shock tunnels and expansion tubes for testing hypersonic propulsion systems, atmospheric re-entry systems and planetary entry systems.	The University of Queensland	QLD	\$3,000,000

Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
Brisbane Surface Analysis Facility	F	Provides materials characterisation facilities including surface analysis, X-ray diffraction and atomic force microscopy for materials science researchers and industry.	The University of Queensland Queensland University of Technology Griffith University	QLD	\$2,000,000
University of Queensland Laser Facility	F	CW lasers with very high resolution for ultra-sensitive spectroscopy, high peak power pulsed lasers for laser diagnostics of hypervelocity flows and spectroscopy, ultra short pulses lasers for nano-optics and spectroscopy.	The University of Queensland	QLD	\$4,000,000
Low Isles Research Station	E	Provide high Level facilities to support Marine Research and education on the Great Barrier Reef. Includes research vessels, laboratories and accommodation for research and educational groups.	The University of Queensland	QLD	\$3,000,000
Surface and material Analytical facility (Ian wark)	F	Central to the surface characterisation and analytical capability of the Ian wark Research Institute, applied to industry collaborative R&D	University of SA	SA	\$25,000,000
Australian Mineral Science Research Institute facility (Ian Wark)	E	Conducting research into major technical challenges facing the global mining industry over the next 25 years	University of SA University of Queensland University of Newcastle University of Melbourne	SA	\$10,000,000
ISI Web of Science Backfiles	SY	Access to key research journal back files that make up the Institute for Scientific Information (ISI) Web of Science data base.	University of Sydney	NSW	\$3,500,000
Acquisition of Arts and Science Collections of JSTOR	SY	An electronic archive of scholarly journals.	University of Sydney	NSW	\$2,651,607
Electron Microscope Unit	F	Provides facilities, training and expertise in microscopy, microanalysis and associated techniques which employ ion beams, X-rays, light and laser optics as well as electrons.	University of Sydney	NSW	\$14,000,000

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High Resolution FEG 300kV Transmission Electron Microscope	F	Transmission electron microscope. (part of the Electron Microscope Unit at University of Sydney - also implicit in the Nanostructural Analysis Network Organisation)	University of Sydney	NSW	\$1,000,000
Molonglo Radio Observatory	F	Sensitive 1.6km radio telescope near Canberra, engaged in major imaging survey of the southern sky.	University of Sydney	NSW	\$12,000,000
Scientific Visualisation Laboratory 1994 - Sydney Regional	SY	User interface for researchers from both universities and industry to effectively process and visualise data, as well as provide a front end to Australia's Supercomputers.	University of Sydney	NSW	\$2,851,000
Equipment for Optical Fibre Research in the Fibre R&D Laboratory	F	Research the fabrication of speciality optical fibre and components for improved optical communications.	University of Sydney	NSW	\$1,000,000
Australian Membership of the International Gemini Partnership	F	Access to facilities for Galactic and extragalactic astronomy.	University of Sydney	NSW	\$11,095,000
The International Ocean Drilling Program - Australian Collaboration	E	Allows exploration of hydrothermal mineralisation, plate tectonics, oceanographic and climate variability in the Australian region.	University of Sydney	NSW	\$20,829,000
Breast Cancer Biospecimen Resource	H	Stored samples of newly diagnosed breast cancers.	University of Sydney	NSW	\$2,000,000

Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
Clinical Trial Data and Information Network	H	Web-based, data management infrastructure services to the Australian and Asian medical research and health communities to facilitate support for national clinical trials, evidence based medicine and disease registries.	University of Sydney University of Queensland Monash University National Health & Medical Research Council Phase Forward Corporation	NSW	\$4,610,000
Nanostructural Analysis Network Organisation	F	An integrated national research facility in microscopy and microanalysis. This network organisation is headquartered at the Univ. of Sydney and includes: extensive specimen preparation laboratories; 19 transmission electron microscopes (TEMs), including facilities for STEM, HRTEM, cryo-tomography, EDS, EELS, etc; 20 scanning electron microscopes (SEMs), including facilities for FESEM, EDS, EBSD, etc; 4 electron microprobes and 1 proton microprobe; more than 10 confocal and light-optical microscopes; 6 scanning probe microscopes; systems for X-ray diffraction, microtomography and fluorescence; 3 focussed ion beam systems, including one dual beam instrument; a nano secondary ion mass spectrometer (nanoSIMS); a local electrode atom probe; Raman and UHV - AFM/SEM/XPS spectroscopy systems; and laboratories for visualisation, simulation and image analysis of data. These facilities are supported by a world-class technical and scientific staff. (www.nano.org.au). In 2004/05, over 800 projects were supported with this Facility's user community generating a similar number of research papers.	University of Sydney UNSW University of Queensland University of Melbourne University of Western Australia Imago Scientific Instruments P/L	NSW, Qld, WA, Vic	\$55,930,000 * (Replacement value of instrumentation is approximately \$85,000,000)
One Tree Island Research Station	E	Field station on the Great Barrier Reef that provides a base, as well as laboratory facilities and other logistic support for marine research, in particular marine biology.	University of Sydney	QLD	annual: 130,000; replacement: 2,000,000 (estimate)

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Sydney University Stellar Interferometer	F	A facility that enables extremely high angular resolution visible and near infrared observations of stars and stellar systems in order to determine their fundamental astrophysical properties.	University of Sydney	NSW	\$10,000,000 (ARC, University of Sydney) (estimate)
Australian Centre for Advanced Computing and Communications (ac3)	Sy	Provides researchers at NSW-based Universities with access to managed High Performance Computing services	University of Sydney	NSW	NSW Government \$12M (2000) NSW Universities \$2.92M (2000) LIEF: \$1.2M (2000) LIEF: \$450K (2003)
Research and Teaching Dairy, Camden	H E	State of the art automated dairy for teaching and research purposes	University of Sydney	NSW	\$1,500,000
Radio Astronomy Observatories	F	Five different telescopes located at four observatories (three in Tasmania and one in South Australia): the Mt Pleasant Radio Observatory located near Cambridge, Tasmania; the Ceduna Radio Observatory located in South Australia; Mt Canopus optical observatory located near Hobart; and the Bruny Island Radio Spectrometer.	University of Tasmania	TAS	\$15,000,000
Australian Maritime Hydrodynamic Research Centre	E	A suite of hydrodynamics facilities comprising a cavitation tunnel, ship handling simulator, towing tank, circulating water channel and model test basin, and a high performance computer.	University of Tasmania Defence Science and Technology Organisation (DSTO) Australian Maritime College (AMC)	TAS	\$12,970,000

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Tasmanian Research and Education Network+A115	SY	Access to capacity on the Basslink fibre, linking Tasmania to the mainland, and contributes towards a high bandwidth backbone within Tasmania for higher education and research institutions.	University of Tasmania Tasmanian Government CSIRO AARNet Australian Maritime College Tasmanian Partnership for Advanced Computing	TAS	\$7,000,000
Analytical High Resolution Transmission Electron Microscope Facility	F	Transmission electron microscope. Part of UWA's Centre for Microscopy and Microanalysis.	University of Western Australia	WA	\$1,016,000
A National Population-based Genetic Epidemiology, Biospecimen and Bioinformatic Resource	H	Integrates human medical research resources (including DNA) in WA with the core WA Data Linkage System, with complementary initiatives in bioinformatics and biostatistics. Population-based enabling facility for epidemiological and genetic epidemiological research.	University of Western Australia	WA	\$1,900,000

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ACIGA-LIGO High Optical Power Test Facility	F	Research in gravitational wave technology development.	University of Western Australia ANU Monash University LIGO Laboratory (California Institute of Technology & Massachusetts Institute of Technology)	WA	\$4,830,000
Western Australian Supercomputer Program	SY	Supercomputer to provide a quantum advance to computationally-intensive scientific research, as well as to world-class visualisation and data-management resources for academic and business communities, both nationally and internationally.	University of Western Australia Curtin University of Technology Murdoch University Cray Australia Pty Ltd	WA	\$1,362,000
Centre for Plant and Food Science	F	Specialised greenhouse, laboratory and field equipment for investigating natural and commercial plant production systems.	University of Western Sydney	NSW	\$12,600,000
MARCS Auditory Laboratories	H	Dedicated, specialized laboratory facilities (500m2) for experimental research in auditory perception and psychophysics, speech and language, and non-verbal communication	University of Western Sydney	NSW	\$3,000,000

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NMR Microscopy System	F	Ultra-High Resolution NMR Imaging System for Nanotechnology including Nanobiotechnology	University of Western Sydney University of Sydney University of Wollongong University of Adelaide University of Newcastle University of NSW Griffith University	NSW	\$1,500,000
Broadband Link from the University of Wollongong to AARNet	SY	Improved broadband access linking the University of Wollongong and the associated Wollongong innovation campus to Sydney sites and the Internet.	University of Wollongong NSW Government Argus Communications	NSW	\$4,200,000

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Nanofabrication for Processing of Novel Multiplayer Materials	F	Atomic layer by layer deposition and fabrication of a wide range of superconductors, semi-conductors, micro lattices etc.	University of Wollongong University of Sydney University of Queensland Macquarie University University of Melbourne University of Technology, Sydney UNSW Curtin University of Technology James Cook University	NSW	\$1,477,500
Ray Williams Biomedical Mass Spectrometry Facility	H	Part of the UNSW node of the Australian Proteome Analysis Facility. Undertakes research and training through independent programs, collaborations and analytical services in the overlapping areas of: biomarkers and small molecules; proteomics and large molecules; scientific instrumentation and technology.	UNSW	NSW	\$6,000,000
Resources for the Breeding & Holding of Animals	H	Animals and services to support the animal based research and teaching effort of UNSW and its affiliated teaching hospitals.	UNSW	NSW	\$4,565,000
Nanostructure Fabrication Facility	F	Investigating the structure and behaviour of materials at the atomic or molecular level and how to manipulate atoms and molecules.	UNSW	NSW	\$1,000,000

Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
Scanning probe facility for atomic-scale device fabrication in silicon and its integration with molecular electronics	F	A scanning probe facility for atomic-scale device fabrication in silicon and the integration with molecular electronics.	UNSW	NSW	\$1,235,000

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Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
High Sensitivity, High Accuracy Mass Spectrometry for Advanced Molecular and Biomolecular Research	H	Two complementary high speed, high accuracy mass spectrometers to assist molecular and biomolecular research and research training.	UNSW University of Sydney Macquarie University University of Technology, Sydney University of Newcastle University of Adelaide Garvan Institute Victor Chang Institute Micromass Uki (or alternately Applied Biosystems) Australian Racing Forensic Laboratory Amersham Pharmacia Rheodyne Gradipore Agilent	NSW	\$2,004,000

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Business Intelligence Lab (BIT Lab)	F	A decision support facility to leverage the research data-visualisation facility; data storage and processing for academics; international business and capital markets research databases; a shared library of business and finance software and specialist IT tools; a team of IT professionals and support staff; and, a national network of researchers and industry.	UNSW University of Technology, Sydney University of Melbourne Monash University University of Queensland Bond University Edith Cowan University University of Western Australia ANU Curtin University of Technology Griffith University La Trobe University Macquarie University Murdoch University RMIT University of Adelaide Central Queensland University	NSW	\$5,315,000

Name	NRP*	Function	Host institution(s)/ manager and partner(s)	Located	Very rough value/funding estimate
Australian Synchrotron	F	Australia's light source - a critical research tool for wide ranging materials characterisation and structural studies.	Victorian State Government CSIRO ANSTO NZ MiniFab various Universities	VIC	\$206,000,000
Large Scale Experimental Building Fire Facility	S	A facility for research on fire in enclosures, smoke generation and smoke movement in buildings, ships, tunnels, etc.	Victoria University of Technology CSIRO Australian Government Analytical Laboratories (SSL (AGAL)) Country Fire Authority (CFA) BHP Billiton Ltd (BHP Steel) One Steel Ltd	VIC	\$2,000,000

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