

Projects for which detailed planning will proceed

MACDDAP: Marine and Climate Data Discovery and Access Project (\$400k pa)

The MACDDAP project supports providers of marine and climate data sets, by creating services built on international standards and software and , to more easily manage, translate, and control these distributed digital repositories for the benefit of Australian researchers. The main outcomes of this project will be a greater availability of marine and climate data, in a wider range of standard protocols, which researchers can use with their preferred applications. These data will be discoverable, searchable, and increasingly conformable with standard vocabularies. Consequently, researchers will be able collect and aggregate marine and climate data across disciplines for knowledge discovery.

SISS: Spatial Information Services Stack (\$400k pa)

The SISS project will:

- develop some of the component services and functional capabilities needed to realise a spatial information data commons within Australia supporting linkages with academia, research, public and private sector data and service providers and users
- leverage the Open Geospatial Consortium (OGC) and ISO standards that have been adopted by a number of NCRIS capability areas and institutions in Australia and worldwide for which various reference implementations already exist for information services and portal interfaces
- combine and build on existing expertise in this foundation area in order to assist multiple NCRIS capability areas and institutions that have interest in geospatial web service middleware and clients.
- establish capabilities to enable standards based networks developed by other communities such as the Australian Bureau of Statistics National Data Network to interact with and benefit from the spatial capabilities developed through this proposal

ASeSS: ASSDA Services for e-Social Science (\$1.5M pa)

This project involves a major activity to set up the first cohesive Australian e-Research service for the social sciences and a limited range of humanities disciplines. The project aims to build a national model that incorporates closely related research domains that form the foundation of an e-Social Science Virtual Organisation. This framework gives the cohesion to focus a critical mass of expertise to develop and operate a sustainable production-quality service.

Projects for which a revision will be prepared before proceeding

Data-NX: Data Management for Neutron and X-Ray Facilities (\$400 pa)

The aim of the project is to provide a data management system for capturing data and metadata from neutron and X-ray experiments, converting the data and metadata into standard formats, and storing them in a distributed, federated data repository system. A portal to the repository will provide a one-stop window through which to search for and access data from different facilities and laboratories in a uniform way. Researchers are increasingly employ diverse techniques and utilise globally distributed facilities. The system will provide authentication and authorization services that support private, controlled (shared) and public access to data.

DIAS-B: Data Integration and Annotation Services in Biodiversity (\$400 pa)

The DIAS-B project addresses both the data publishing and data use aspects of data integration across biodiversity data holdings and also considers a two-way flow of information between those functions.

It consists of three related sub-projects that are of immediate benefit to NCRIS 5.2.3, the Atlas of Living Australia (ALA) and more widely to NCRIS 5.2 Integrated Biological Systems (IBS).

However, the services developed for these sub-projects are expected to have much broader applicability.

Collaborative Integration and Annotation Services for Australian Literature Communities

The aim of this project is to provide services to address the eResearch needs of researchers involved in the study of Australian Literature. In particular it will focus on cyber-infrastructure to satisfy needs of the ASAL (Association for the Study of Australian Literature) community. There will be three main outcomes:

- data integration services;
- collaborative annotation services;
- compound object authoring, editing and publishing services.

Projects not to proceed immediately

Semantic Platforms for Linking Interdisciplinary Content Environments (\$350k pa + effort from ANDS) – integrate with above

The SPLICE project will bring the widest representation of humanities research programs and projects into the frameworks of the PfC.

The SPLICE project proposes to develop semantic-web-based tools, services and a skills base to enable the transition of existing research databases into an interoperable data commons built on persistent identifiers, international standards and distributed federated repositories. Developed by and demonstrated through the humanities community and its collaborators, SPLICE will enable broad trans-disciplinary discovery and exchange of humanities-relevant research data to enhance and extend the research practices of these communities.

Drishti – Volume Exploration & Presentation Platform (\$250k pa) – reframe as a service

The Drishti project builds on a very successful project run developed at the ANU over the past three years. The initial aim was to provide a flexible volume renderer that runs on mid-range graphics cards. The application of Drishti to a wide range of research problems has resulted in enormous international following. Drishti can be applied to a range of NCRIS capability applications. The main aims of this project are to extend the use of Drishti to NCRIS and other high profile application areas in the Australian research community, which seek to address challenging visualization of volumetric data; visualising large datasets coming from more advanced applications of high resolution instruments; and continuing to improve program core functionality to execute the broad range of applications of Drishti

AAHL Collaboration Environment: Remote Presence – defer till ABIN is more advanced

This project will establish a service that enables partners and members of the Australian Animal Health Laboratory (AAHL) to collaborate on data intensive activities securely and remotely. It will do so by creating a collaboration environment that enables video conferencing, accessing a shared data display environment to examine images of cells, tissues and animals at high definition, and enabling shared control of the data images, and accessing remote data. This environment will support the use both standard screen interfaces, and high quality collaborative workbenches, all in an authenticated environment.

Projects deferred

Geosciences collaboration environment – possible tsunami modelling project – next round

Data grid and/or Virtual Environment for microscopy – next round

Further Projects

Further contact will occur with Astronomy regarding Aus-VO and in Biosciences (related to 5.1) to work towards projects for the next round.