



## Who is TPAC?



- **Tasmanian Partnership for Advanced Computing**  
Partner in APAC (Australian Partnership for Advanced Computing)  
Expertise centre for Earth Systems Science (ESS)  
Provides expertise & educational programs, as well as HPC facilities

- Located at University of Tasmania, Hobart

- Partnership between:

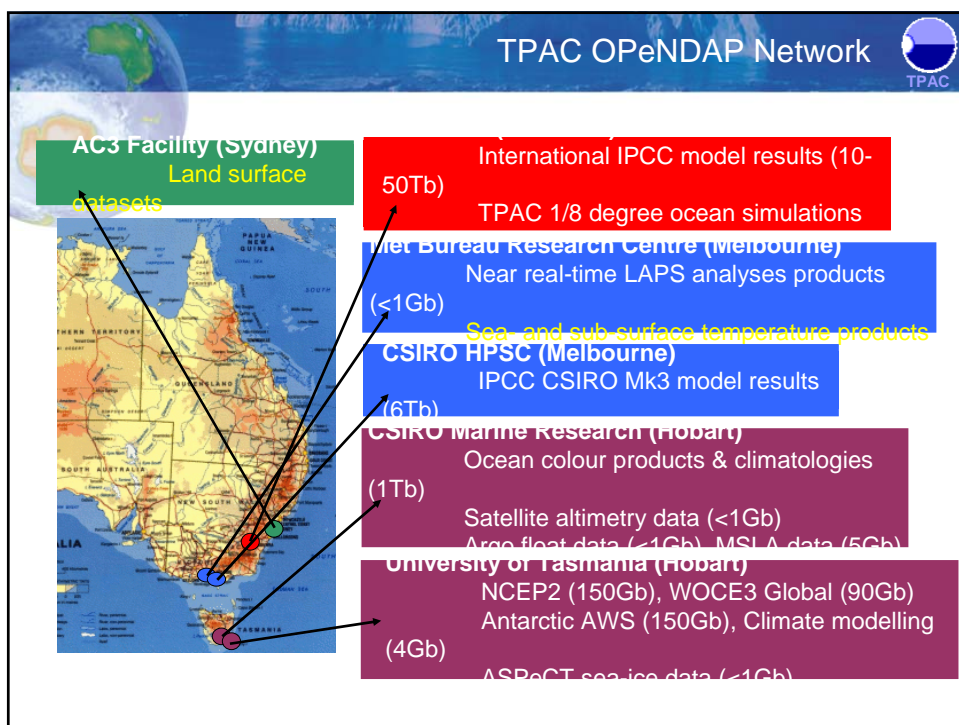
University of Tasmania	CSIRO Atmospheric Research
CSIRO Marine Research	Australian Maritime College
Australian Antarctic Division	Antarctic Climate & Ecosystems CRC
Bureau of Met. Research Centre	

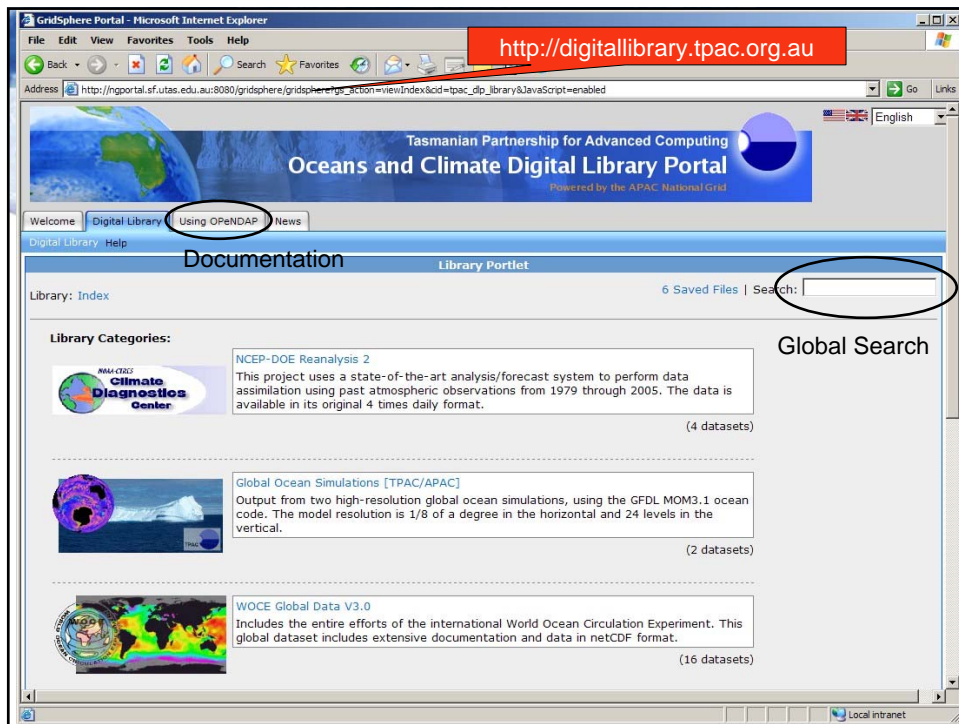


Australian Government  
Department of the  
Environment and Heritage  
Australian Antarctic Division



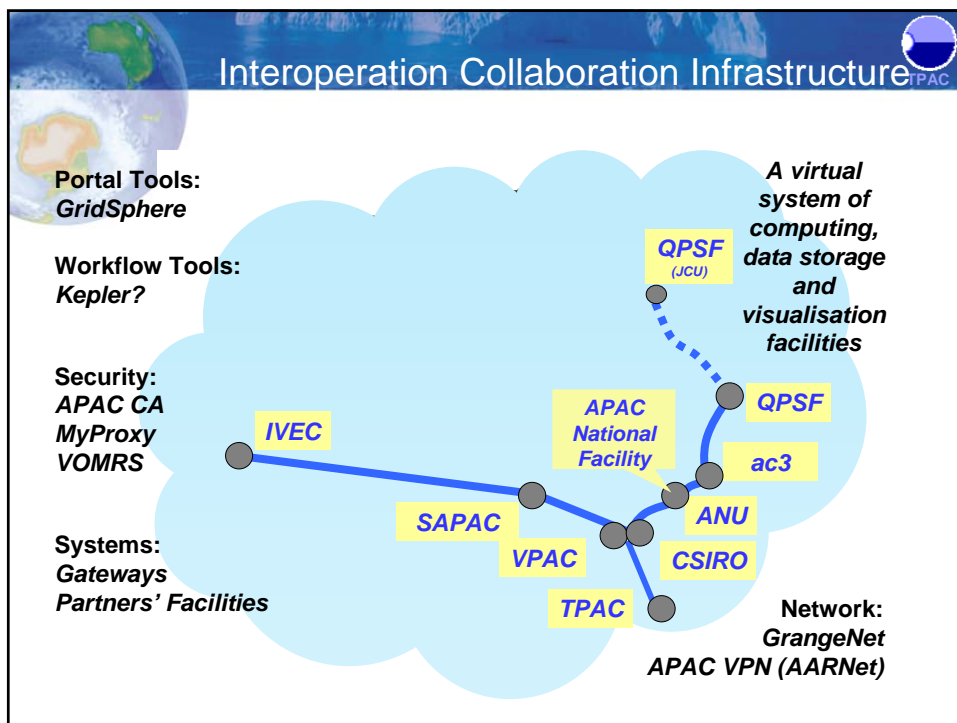
Australian Government  
Bureau of Meteorology

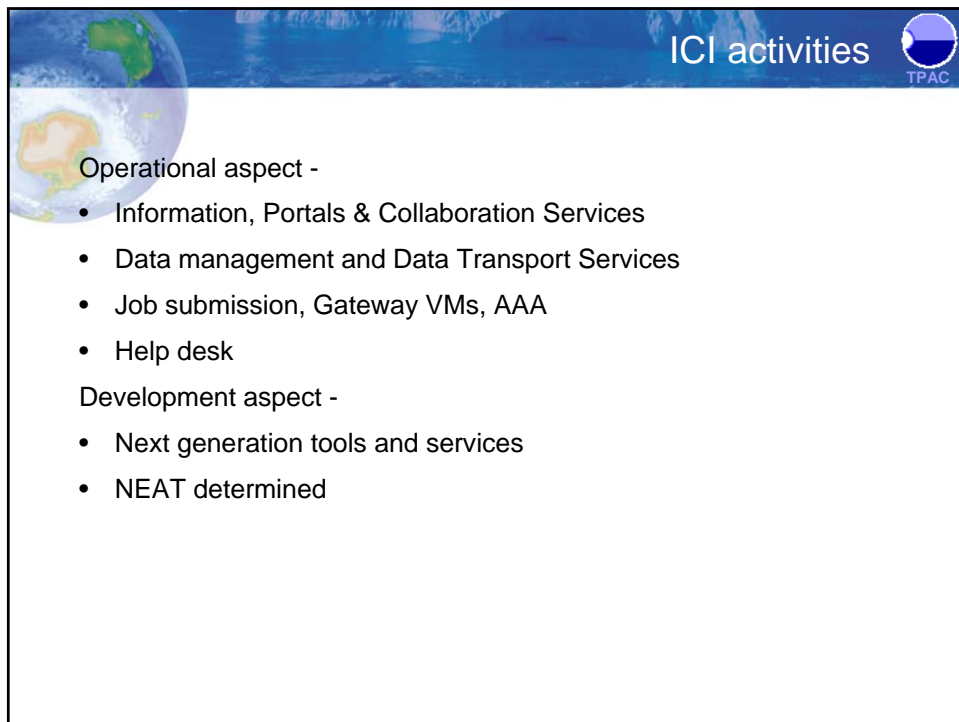




## Current relevant project

- Rolling out THREDDS network (for Earth Systems Science)
  - OpenDAP, WCS, and gridftp, http, ftp
- Metadata discovery search engine (with administration)
  - Adoption by Alexandria Digital Library
  - AO DAAC (with enhanced capabilities)
- Web Map Services
  - Plugin for LAS (adopted by LAS)
  - Client portal in gridsphere
  - WMS functionality in THREDDS
- A workflow for reading OpenDAP repositories (or catalogs) and augmenting the metadata to be conformal with marine profile





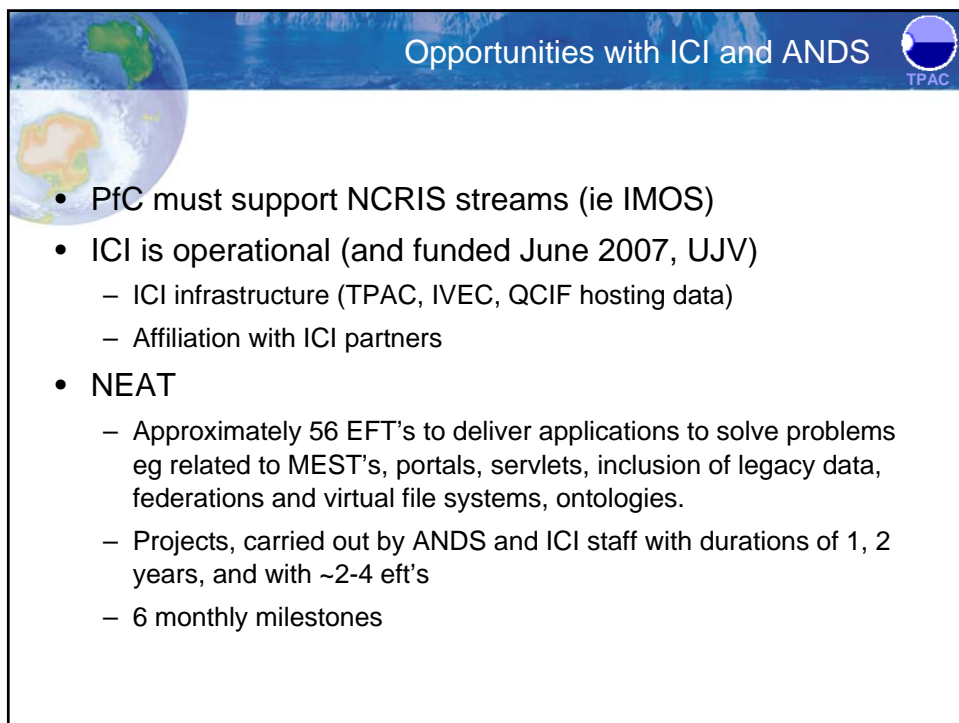
## ICI activities

Operational aspect -

- Information, Portals & Collaboration Services
- Data management and Data Transport Services
- Job submission, Gateway VMs, AAA
- Help desk

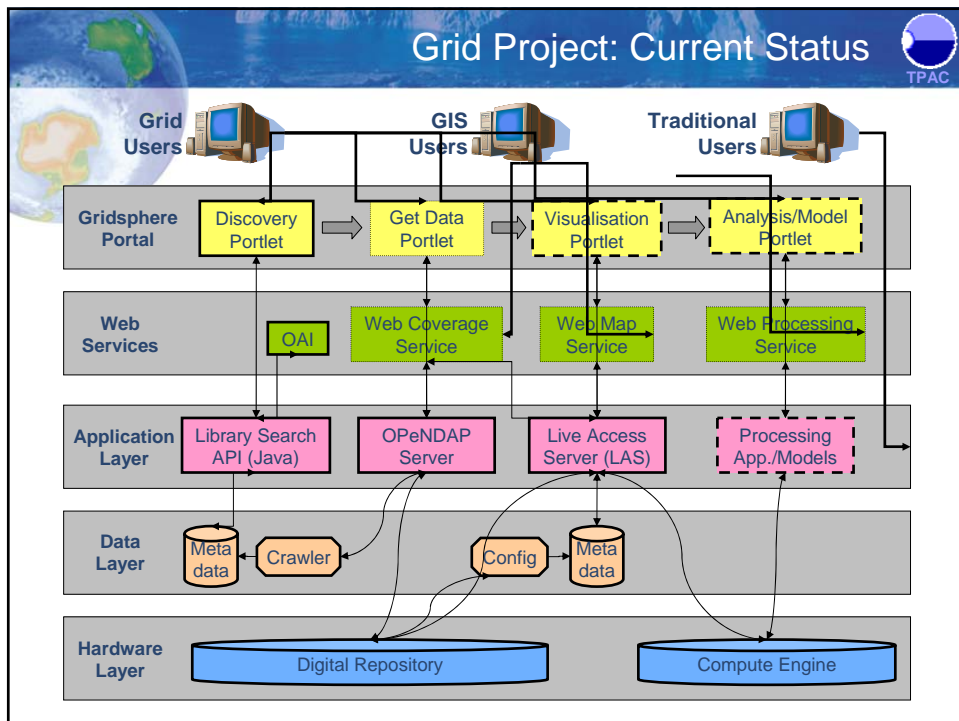
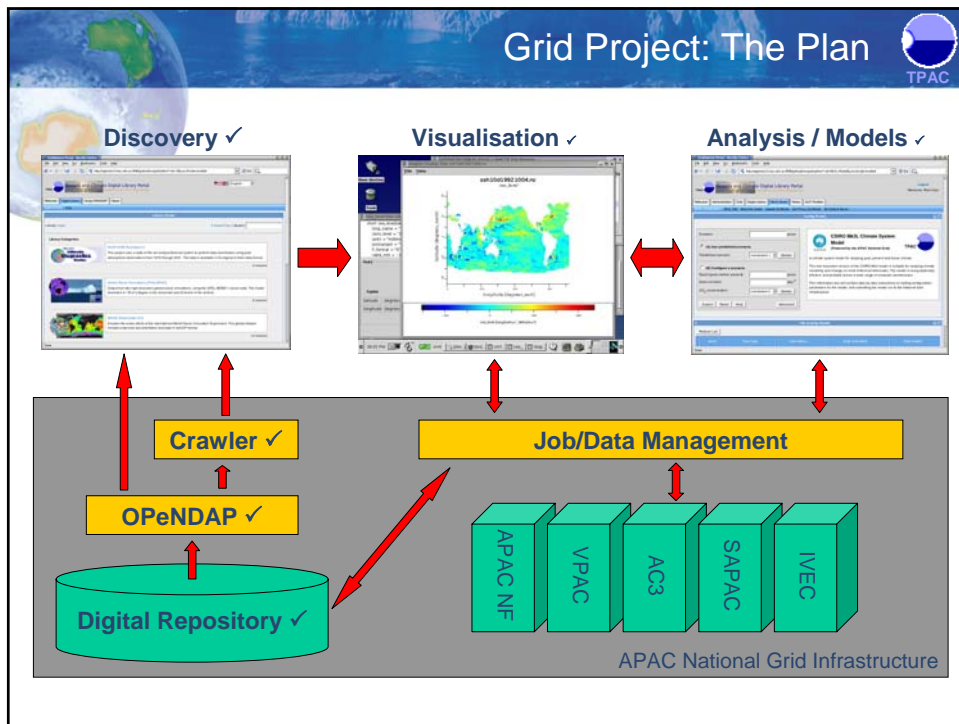
Development aspect -

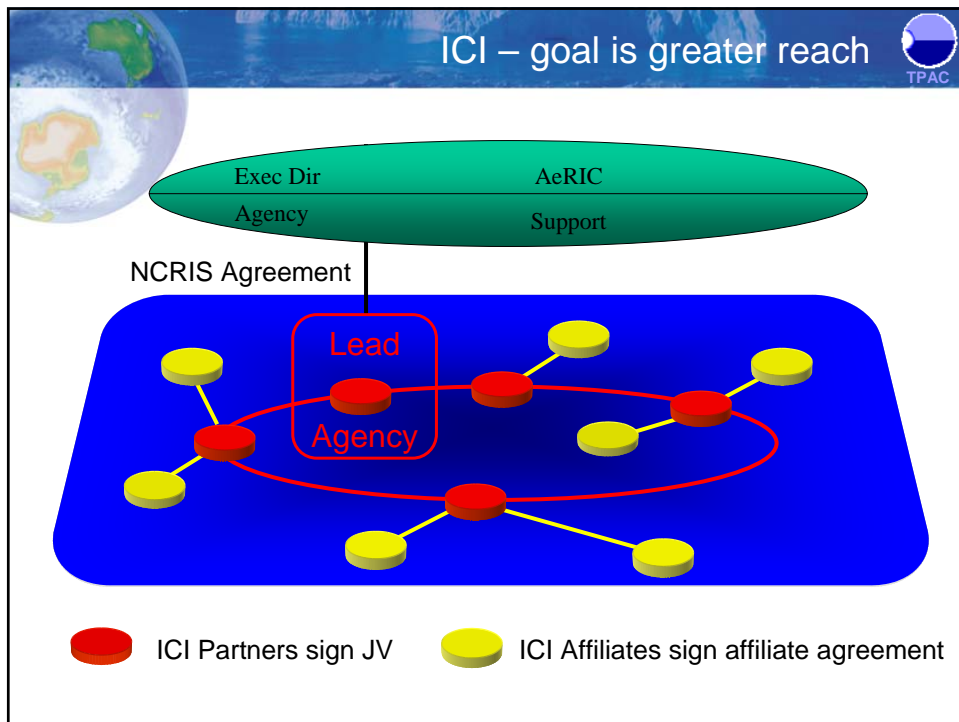
- Next generation tools and services
- NEAT determined



## Opportunities with ICI and ANDS

- PFC must support NCRIS streams (ie IMOS)
- ICI is operational (and funded June 2007, UJV)
  - ICI infrastructure (TPAC, IVEC, QCIF hosting data)
  - Affiliation with ICI partners
- NEAT
  - Approximately 56 EFT's to deliver applications to solve problems eg related to MEST's, portals, servlets, inclusion of legacy data, federations and virtual file systems, ontologies.
  - Projects, carried out by ANDS and ICI staff with durations of 1, 2 years, and with ~2-4 eft's
  - 6 monthly milestones





ICI activities

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Development aspect -


- Next generation tools and services




Platforms for Collaboration



- Data access and discovery, storage and management
- Grid enabled technologies and infrastructures
- Technical expertise
- High performance computing
- High capacity communication



Lots of demand...



NCRIS

5.1 Bio Mol Platforms

5.2 Int Bio Systems

5.3 Characterisation

5.4 Fabrication

5.5 Biotech Products

5.8 Bio Security

5.10 Astronomy

5.12 Marine Obs Sys

5.13 Str & Evol Continent

5.16 Platforms for Collab

data

QoS

collab

grid

hpc

data

QoS

collab

grid

hpc

data

QoS

virt.p

grid

hpc

collab

hpc

collab

hpc

data

QoS

collab

hpc

data

QoS

virt.p

d.sys

hpc

data

collab

grid

hpc

data

QoS

collab

grid

hpc

data

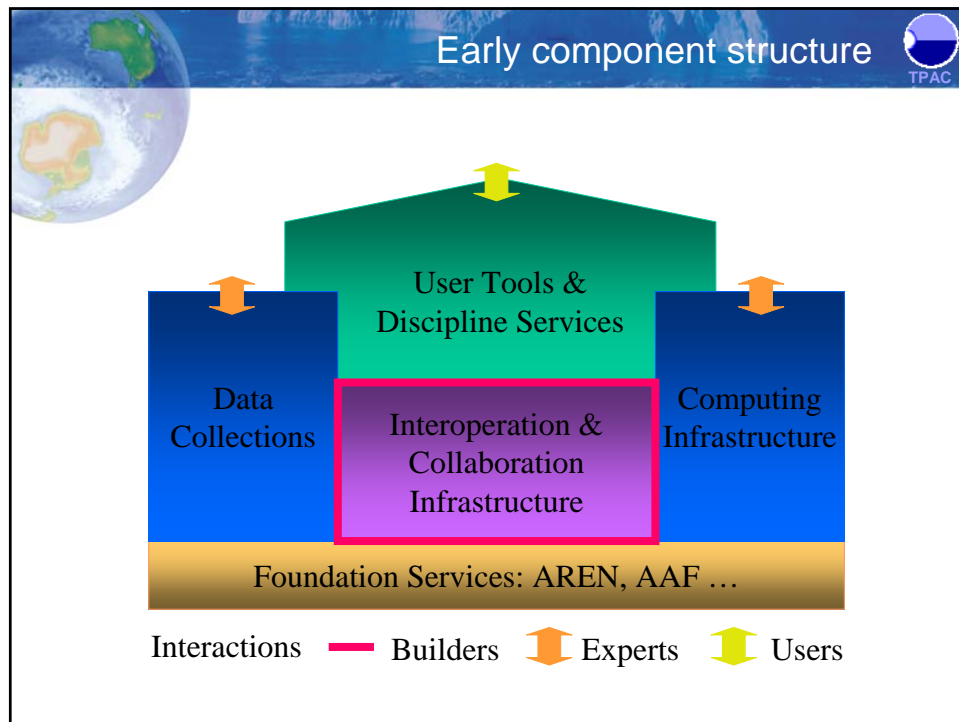
QoS


collab

grid

hpc





- “Data and Collaboration” opportunities  
(TPAC+partners) 
- Australian Model simulations and related data (ICI) accessible to researchers
  - Development of tools related to data (ICI+ANDS)
  - Free movement of data nationally and internationally (ICI)
    - Eg IPCC, ECCO, SODA, SOPHOCLES, NCASS, Cape Grim, other simulations (ENACT)
  - Analysis Tools (on ICI infrastructure)
  - Other NCRIS platforms
    - IMOS (eg data, and data discovery and access)
    - TERN + BLUENET
  - Collaboration services (Wiki's, code repositories,