AeRO
Australasian eResearch Organisations

The Roadmap – what can we say?
The context

- Draft is with the Minister
- Final version to be released with The Response
- Currently no further work in Dept/Chief Scientist Office
- Only known budget commitment – NISA forward estimates

- But most of the submissions to the draft are public…
The submissions

- Around 180 submissions on the draft
  - 10 vanished?
  - 20 private
  - 151 public

- Like good students
  - 16 handed in late
  - 95 at the last minute
  - Quite a bit of sharing going on.
The submitters

<table>
<thead>
<tr>
<th>Type</th>
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<tbody>
<tr>
<td>Research(ers)</td>
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<td>NCRIS, Facilities</td>
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<td>Associations, Unions</td>
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<td>GLAM</td>
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<td>PFRA</td>
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<td>Govt, Fed/State</td>
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<td>CRC, Industry</td>
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<tr>
<td>Academies</td>
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</table>
For noting

• Self selecting, self interest:
  • So don’t look for statistics

• Strong support wherever money is flowing

• Lots of people ‘pleased’, ‘commending’ and even ‘congratulating’ – and nearly everyone ‘endorsing’
  • Mostly…
    • “This is not a roadmap. It does not have outcomes. Too research-led. Not enough industry engagement. Better example in the alumina industry”

• “We should flood Lake Eyre, and … Just give me some money and stand back”
Focus Areas

• **Most common comments:**
  
  - “Focus Areas overlap, infrastructure/facilities overlap”
    - Especially HASS
  
  - “Make sure we don’t create more siloes”
  
  - “Infrastrucure should be discoverable, and seamless,”
  
  - “Let us clarify…”
  
  - “Let us highlight…”

  - “We are part of the DD/eR community – not a client”
Focus Areas – 2

• Environmental Systems
  • Earth Sciences not happy under Environmental Systems
  • Energy and Resources understated
  • Surprising mistrust of remote sensing data, want more field collection

• Missing Focus
  • (Civil) Infrastructure – RI for research on infrastructure
  • Cybersecurity

• Trajectories
  • A number of disciplines/communities have 5-10 year plans now
Governance

• Blend of “overall” and “program”
  • All want more clarity, at all layers

• Don’t like incorporated entities
• Really like incorporated entities.

• “Our group is an example of a good model…”
Advocacy Group ...

- (State Govt) Should have State Govt people
- (GLAM) Should have GLAM people
- (Libraries) Should have Librarians
- (Archives) Should have Archivists
- (Unis) Should have University executives
- (Maths) Should have Mathematicians
- (Business) Should have Business researchers
- (Humanities) Should have HASS researchers
- (Facilities) Should have Facility directors
- (Earth Sciences) ...
Advisory Group...

- **Earth Sciences:**
  - “AG should be completely independent, with no institutions potentially hosting infrastructure there.”

- **PFRA: Should have Subject Matter Experts**

- **Academy:**
  - “AG should be supported by a research capable Secretariat, to marshal evidence and models”
National Interest

- Many comments:
  - Should be more than security, sovereignty, economy, productivity
  - Also Global needs, Social interests, Wellbeing, ‘Blue-sky’
  - Also National/Strategic Research Priorities
Workforce

- By far the most endorsed – fundamental to value of RI
  - Make it part of the plans. Make it a Principle.
  - Who trains, who is trained by them
    - Institutions to train researchers, Facilities to train operators
    - Facilities to train researchers (u/grad, p/grad)
    - National approach to training operators (standardised, create a pool)
    - Support for secondments and scholarships
  
- Career progression for operators is a major problem
- Many skill shortages (maths, data sciences, domain specifics, HPC, …)

- Career prospects depend on sustained infrastructure
Maturity

• Accreditation, Certification – strong support

• Important for community trust and standing
  • Locally, internationally; research and industry

• Important for workforce
  • Recognise quality, effort, progression
Institutional research infrastructure (IRI)

- Despite what it says on the tin…
- Many see IRI as interwoven with the NRI, in complex ways.
- Based on principles – a lot of IRI is actually NRI
  - IRI is a component of NRI – needs integration
  - IRI is a pathway to NRI – needs alignment
    - Key element of skills for operators and researchers
eR/DD

- It’s foundational…
- Make it
  - visible, discoverable
  - seamless, integrated, tuned to domains
  - researcher-led/focussed/oriented/prioritised
  - internationally-aligned/integrated
- Leverage/pool institutional investments to augment NRI
Compute

• Strong support for a national Tier-1 HPC
  • But more: capacity, access, sites, distributed expertise, external use

• Good support for Tier-2 HPC coordination
  • Blurred boundaries for specialised Tier-2 => Tier-1?

• Grow international access
  • We can’t build it as big as them anyway

• Leverage commercial (cloud) providers more
Data, data, data

- Open access agendas come through strongly
- Productivity Commission report on Data referenced a lot
  - Plus many NHMRC, ARC, GLAM, UK, … reports
- Role (expertise, legislated) of GLAM highlighted

- (HASS) Need for a national real-time online data service
  - Social media streams, IoT, “live” data
  - One for the country, common access agreement
ARDC

- Highly supported, and keenly looking for “clarity”
- Don’t tie it down
  - To single provider/platform/approach
  - To ANDS/Nectar/RDS, or just the ‘eResearch’ providers
    - Providers in NCRIS, Institutions, Facilities, GLAMs, PFRAs, …
- Integrate with computing – at all scales
- Leverage commercial providers
ARDC

- Harmonise with Domain/Focus layers
- Harmonise across Domain/Focus Areas
  - e.g. different spatial interfaces in ACCESS/BCCVL/ALA/…
- Who is it for:
  - Prioritise NCRIS,
  - Support every researcher, everywhere
  - Extend beyond research, no limits
- Seamless, managed, secure, compliant, trustworthy, …
Networks

- Increasing mobility of researchers noted
- Commodity Internet and NBN limitations noted
- Off-net access a constraint for some
- More regional network coverage needed
- Specialised systematic networks desirable
  - Remote area, ad hoc networking, support for UAV, IoT
Other notes

• Want more support
  • For Visualisation
  • For Machine Learning
  • For Data Management and Analytics
  • For M2M services – issue for Authentication/Authorisation

• No reference to consolidation, single providers
  • Federations etc. a given
We also surveyed (some of) the audience

- Sent a short survey to all DVCs-R
- 3 broad questions
- 12 responses (4 Go8)
Investment

- Do you see investment in eResearch to support your institution’s research over the next decade:

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### Primary Responsibility for … sits where?

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What could the eResearch community collectively do better?

• ... multiple things – see report.
Visit our website www.aero.edu.au

or contact enquiries@aero.edu.au