

# NRDC Future Design

AeRO Forum

14 Mar 2018

# A guide to developing an NRDC for 5-10 years into the future

The Transition Plan is about converting the RAN into a single entity that will evolve into the NRDC for the future

**The National Research Data Cloud (NRDC) will be an organisation that transforms, champions and enables the effective and productive application of data-intensive digital infrastructure to the delivery of advanced research.**



**Enhanced research excellence**

**Researcher productivity**

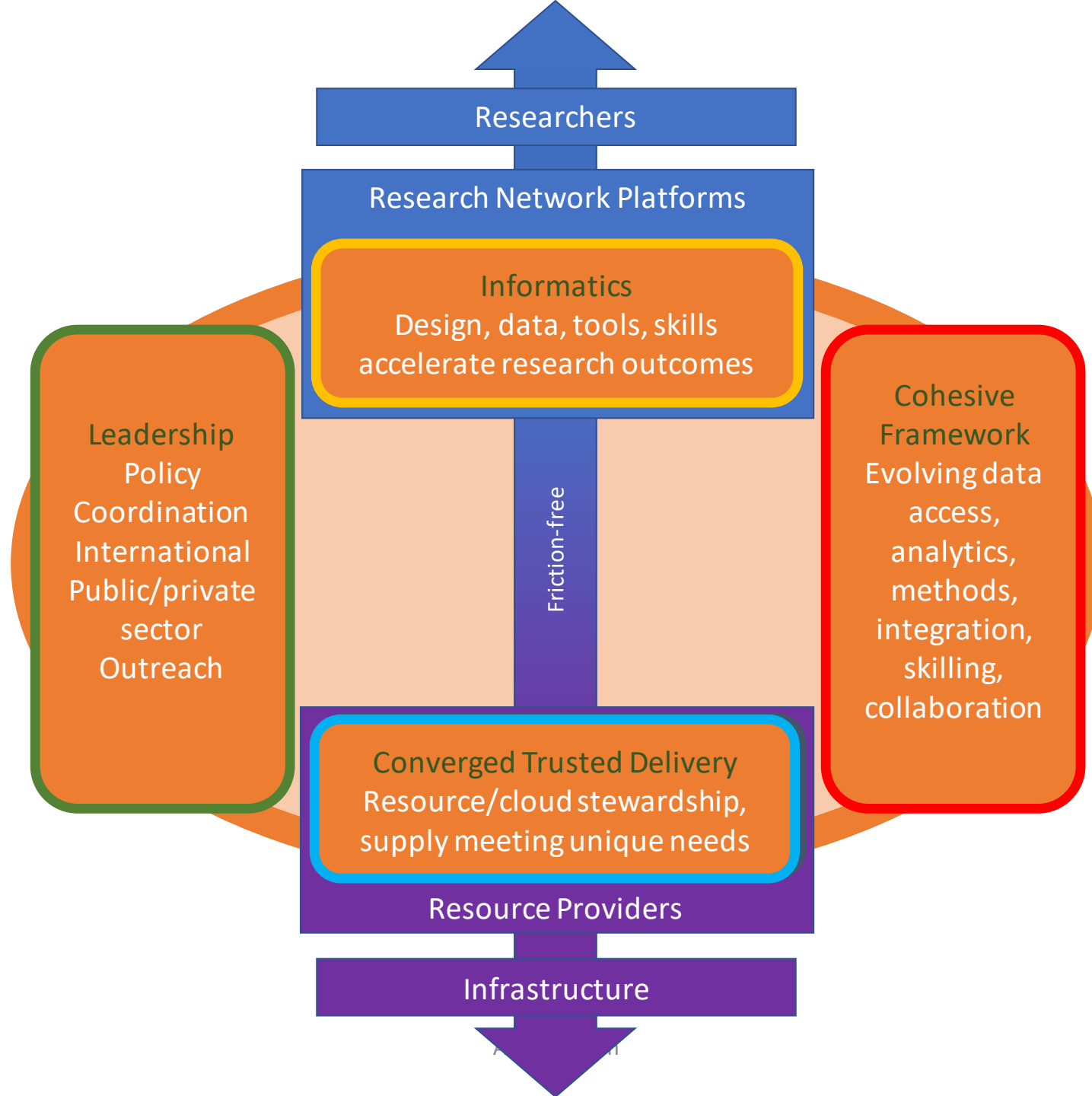
**International interaction**

**Public/private sector bridge**

**Trusted quality re-useable data**

**Expertise**

# NRDC Model



# Stakeholder context

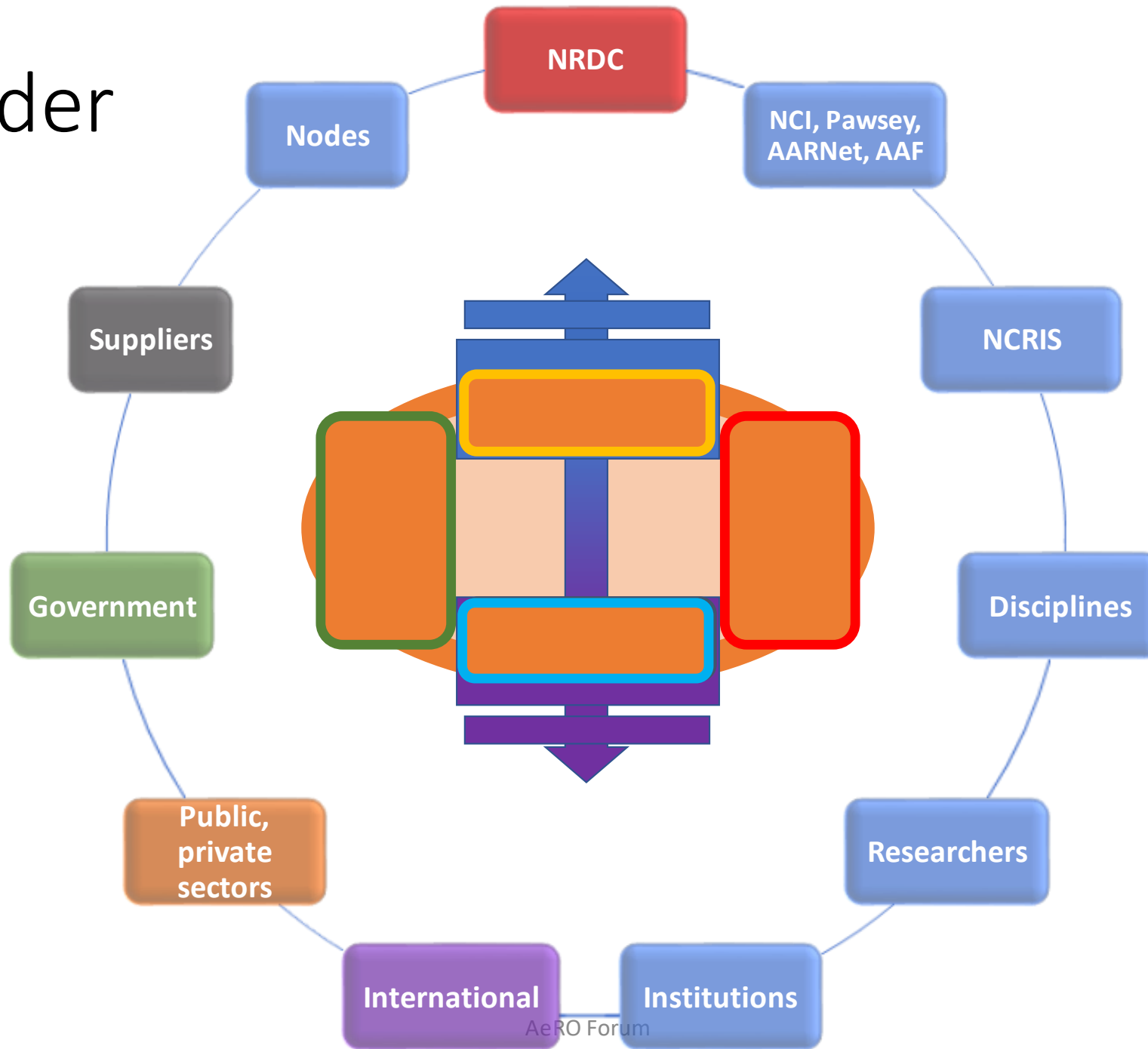
**Customers**

**Users**

**Suppliers**

**Partners**

**Collaborators**





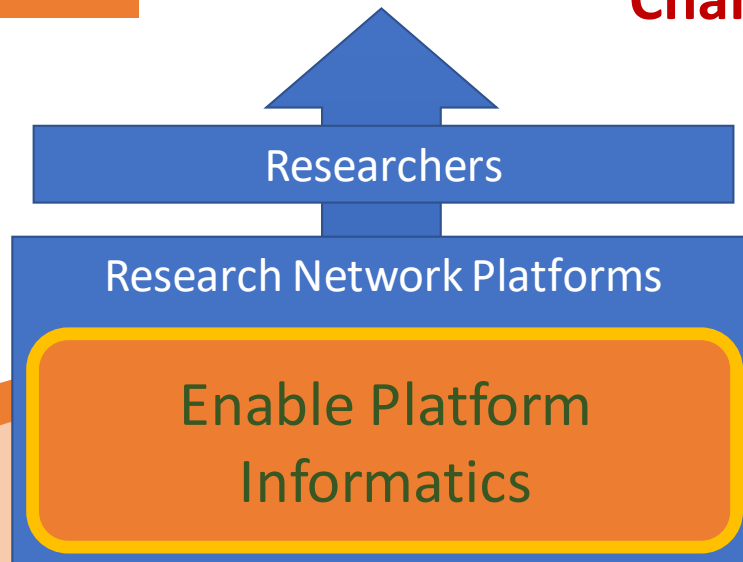
- Platforms led by Research Networks
- Delivering informatics for the community
- Maturing over time
- Pervasive culture of platform use
- Towards excellent highly productive research

**Bioscience**

**Characterisation**

**Astronomy**

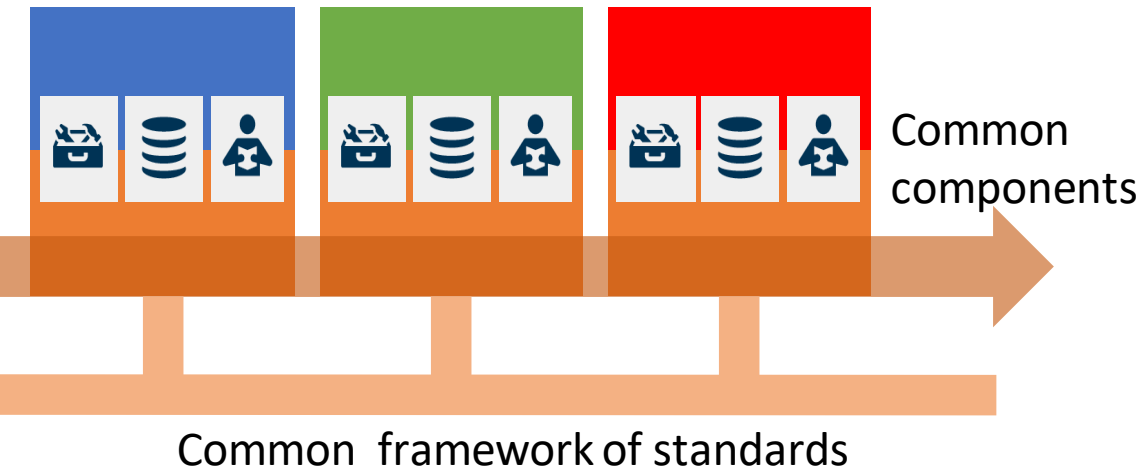
**Marine**



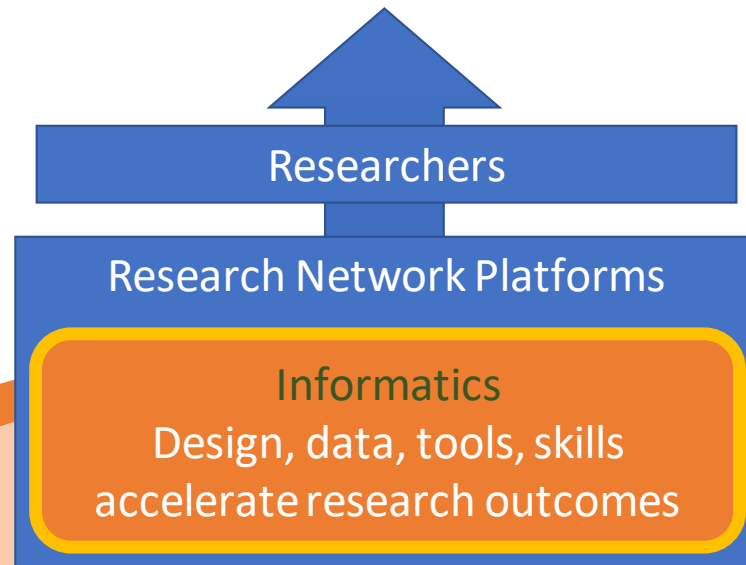
**HASS**

**Ecoscience**

# Platforms: NRDC role



- Harvest from successful platforms
- Co-develop with maturing platforms
- Plan platforms with less mature networks
- Re-use componentry
- Promote the cohesive framework
- Adopt, adapt from international networks
- Expertise in production systems





Cohesive  
Framework  
Evolving data  
access,  
analytics,  
methods,  
integration,  
skilling,  
collaboration

**Standards**

**Data management**

**FAIR data and tools**

**Open/shared research**

**Workforce development**

**Data bridges**

**Trusted quality data**

**Secure data secure repositories**

**Automation**

**Identifiers**

**Authentication**

**Catalogues**

**Geocoding**

**Metadata**

**Vocabularies**

**Publication**

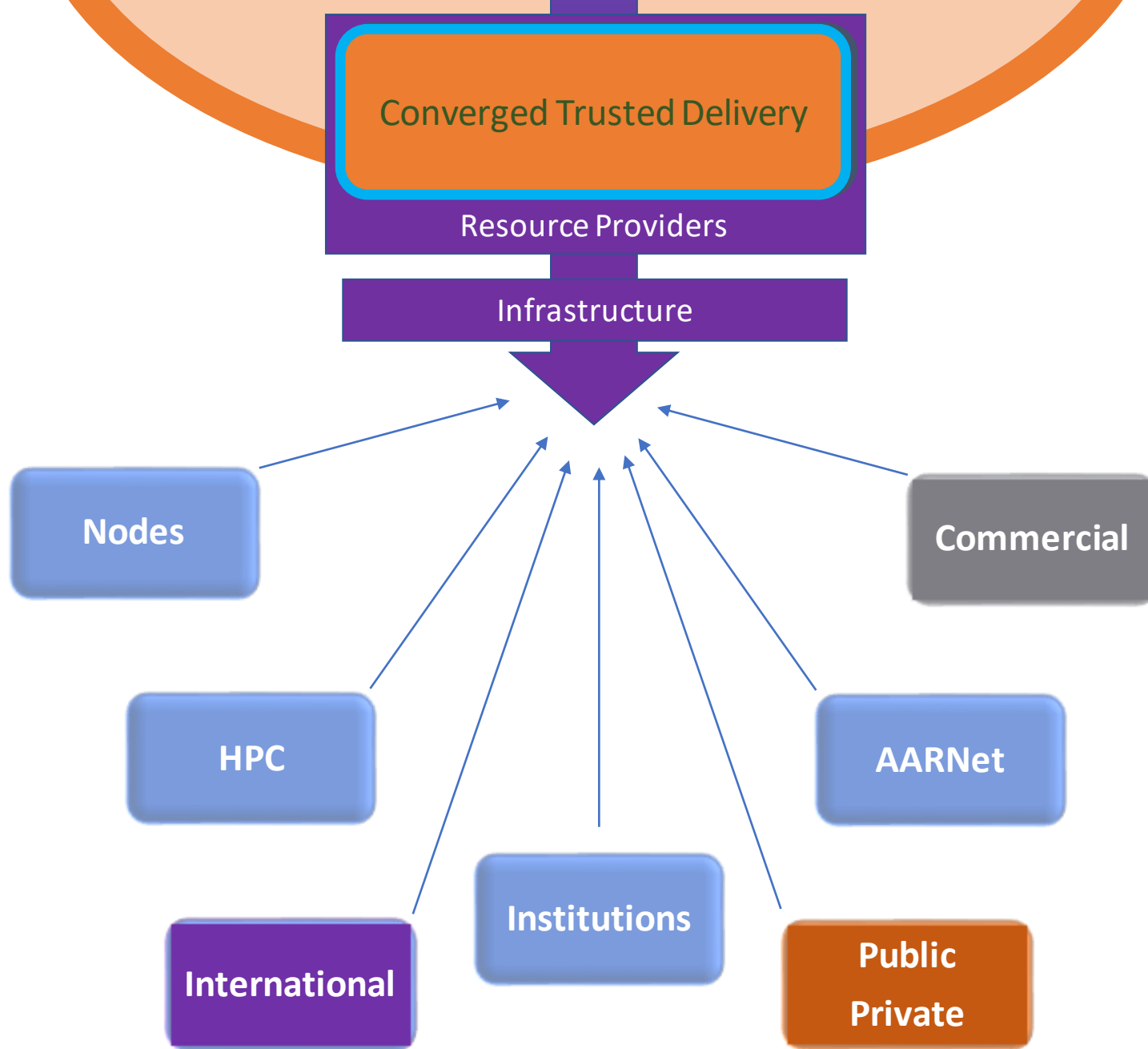
Global alignment, cross-disciplinary, cross-sector coherence

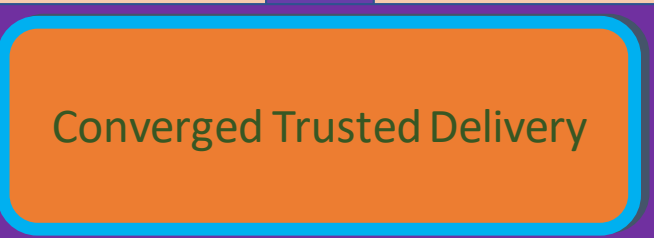
# Framework: NRDC role

Cohesive  
Framework  
Evolving data  
access,  
analytics,  
methods,  
integration,  
skilling,  
collaboration

- International standards alignment & leadership
- Adopt & adapt international best practice
- A national framework strategy
- A national standards body
- Production systems implementing standards
- Selective developments
- Innovations – eg secure data systems, data federation

# Resource Marketplace





# Resource Providers

Nodes, NCI, Pawsey

Institutions

AARNet

AWS, Google etc

International

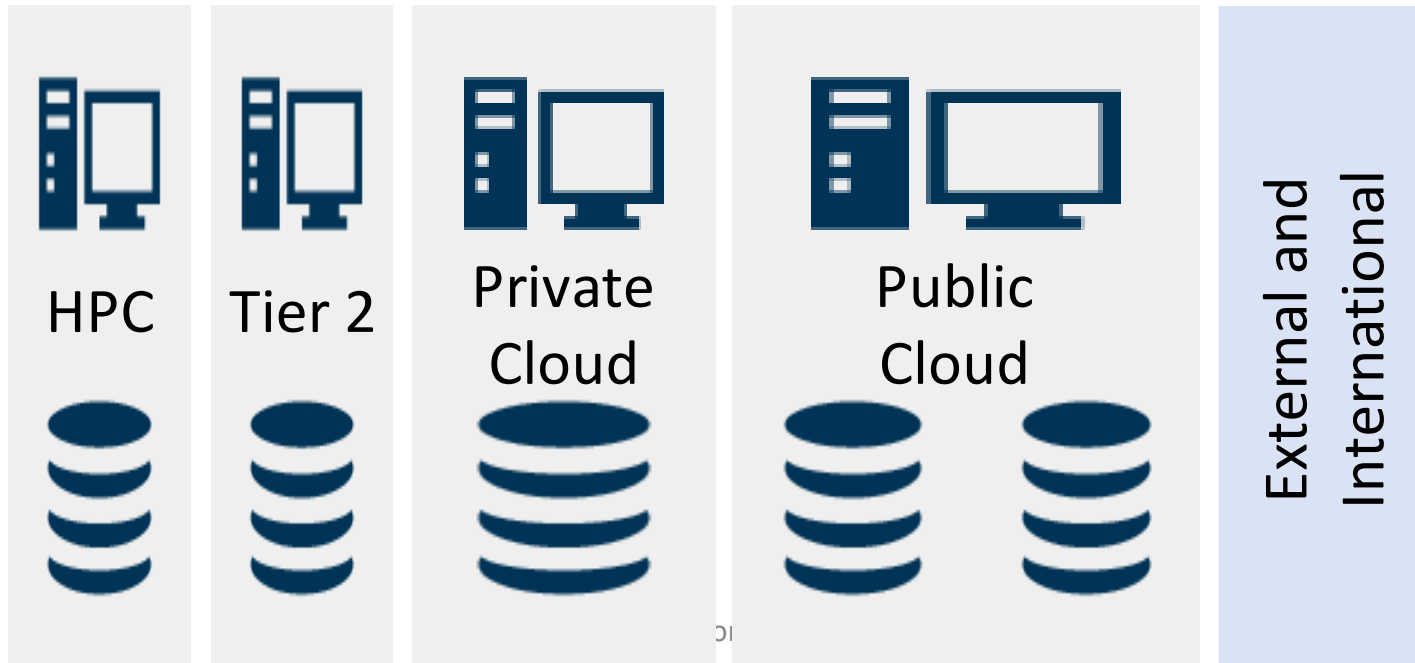
# Service Providers

Core services

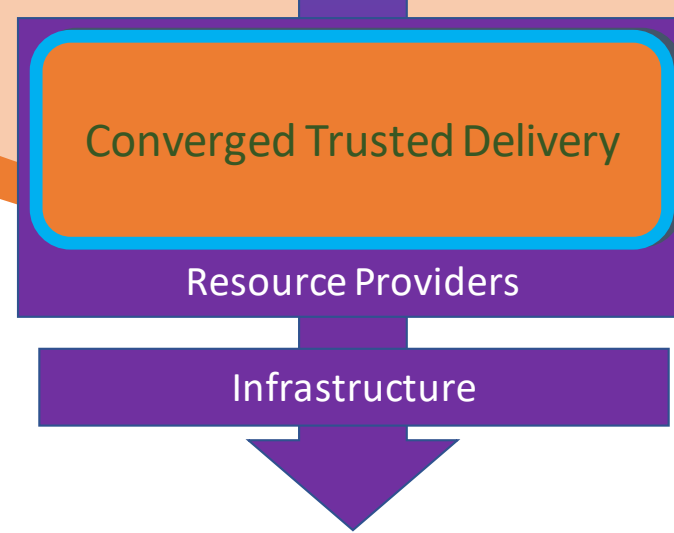
User support

Maturity models

Cohesive framework



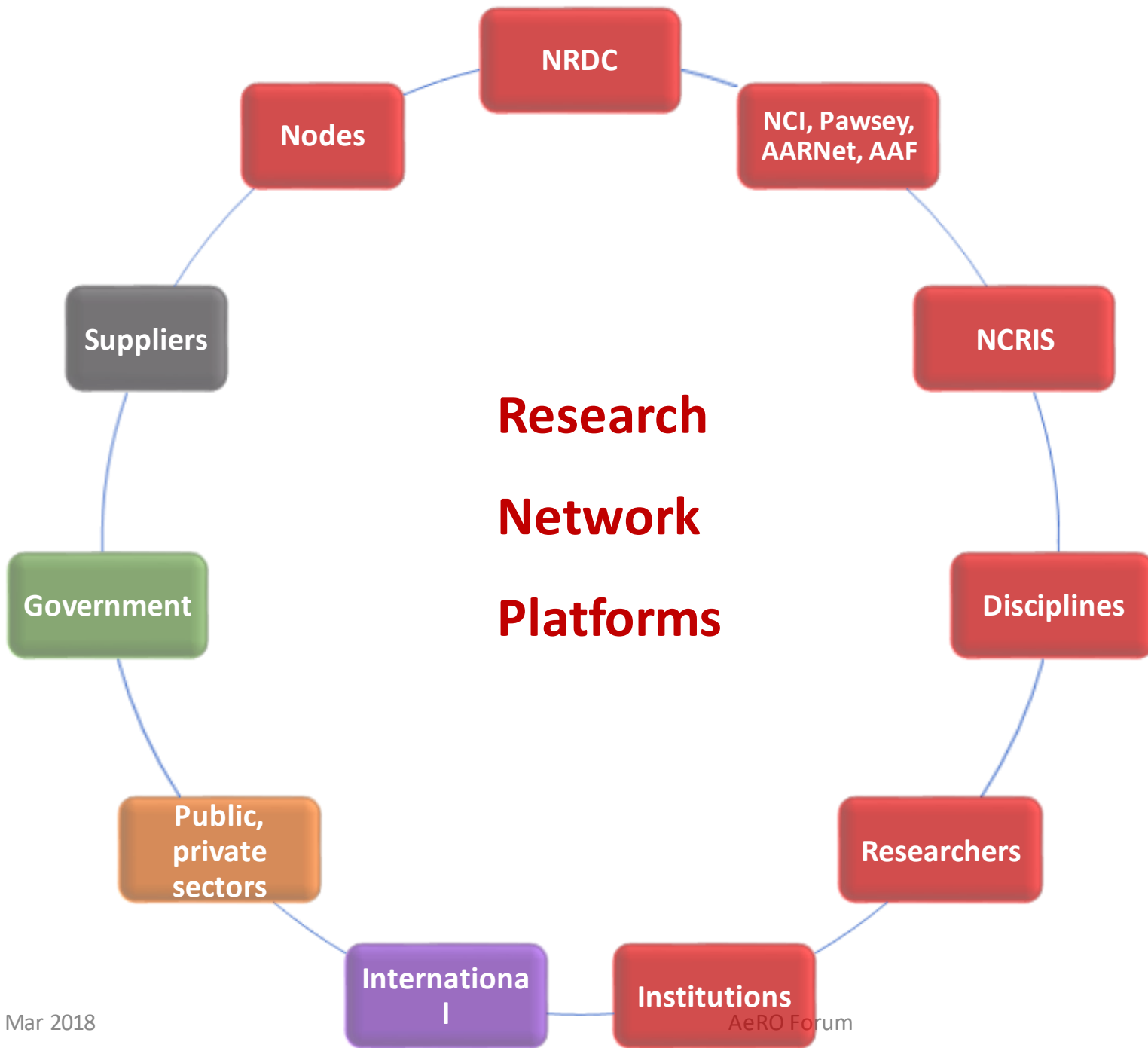
# Infrastructure: RAN to NRDC



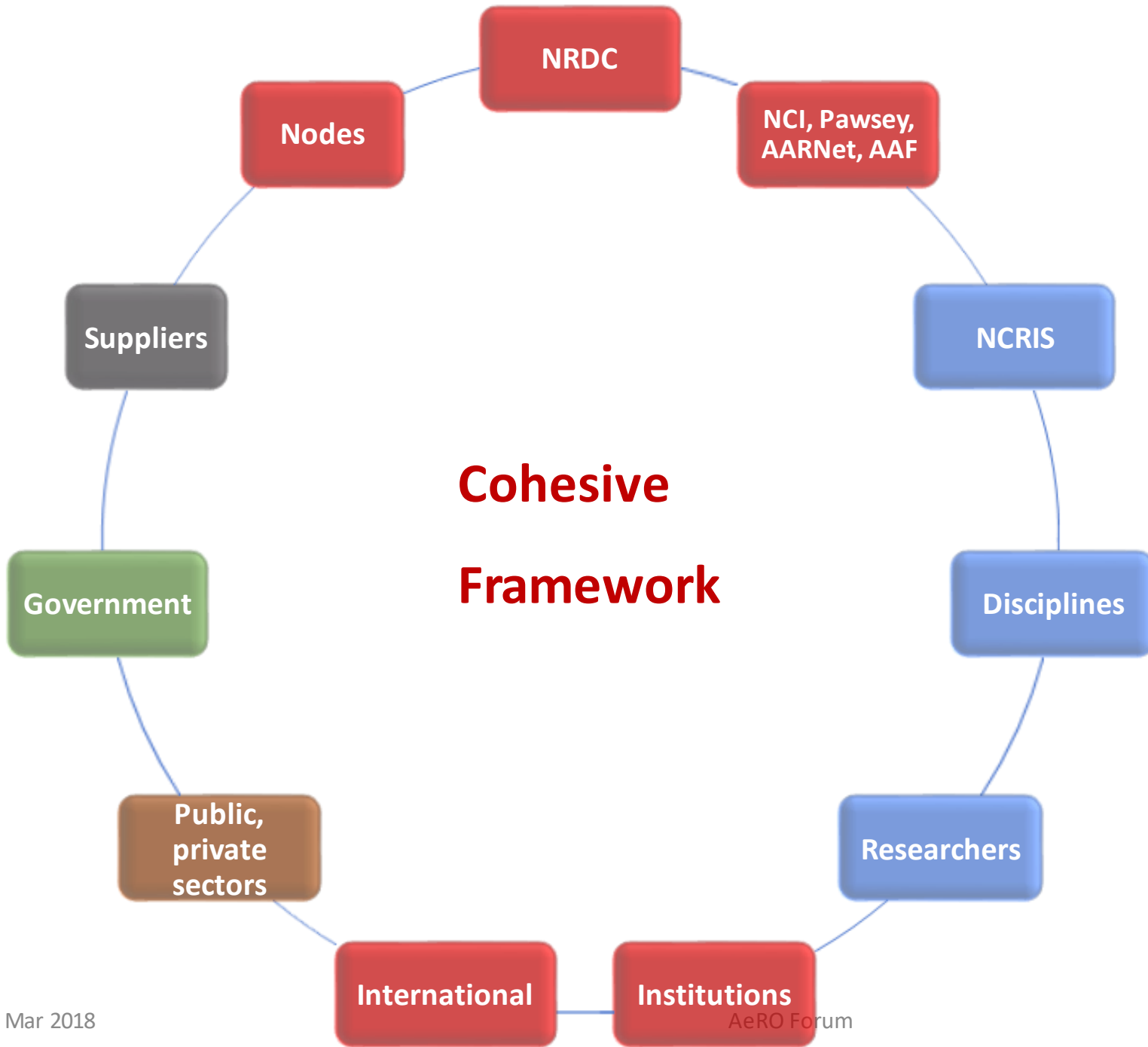
- National Research Infrastructure Investment Plan (NRIIP)
- Uncertain final landing place
- RAN equipment nearing obsolescence
- It will be replaced, but converged and coordinated?



Leadership  
 Policy  
 Coordination  
 International  
 Public/private  
 sector  
 Outreach



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**Production**

**Development**

**Innovation**

**Data-intensive**

**Skills, culture**

**Expertise**

Research  
Network  
Platform  
Informatics

Transformation  
Strategy

Converged  
Trusted  
Resource  
Delivery

Cohesive  
Framework

Leadership  
Policy  
Coordination  
International  
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Outreach

# Questions, discussion, feedback

Prof Robyn Owens

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# NRDC Transition Plan

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# Transition decisions

- Future Design accepted – that is it's a fine long-term vision
- RAN to extend through 2018-19
- NRDC to go operational  $\leq$  1 Jul 2019
- Single Board to replace existing three RAN Boards
- RAN to pivot towards NRDC future

# NRDC Transition Plan Advice

- Implementing NRDC entity
- Issues in transitioning RAN to NRDC

# Questions, discussion, feedback

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