



# FAIR FACILITIES AND INSTRUMENTS

WORKSHOP #3

24 SEPTEMBER 2025

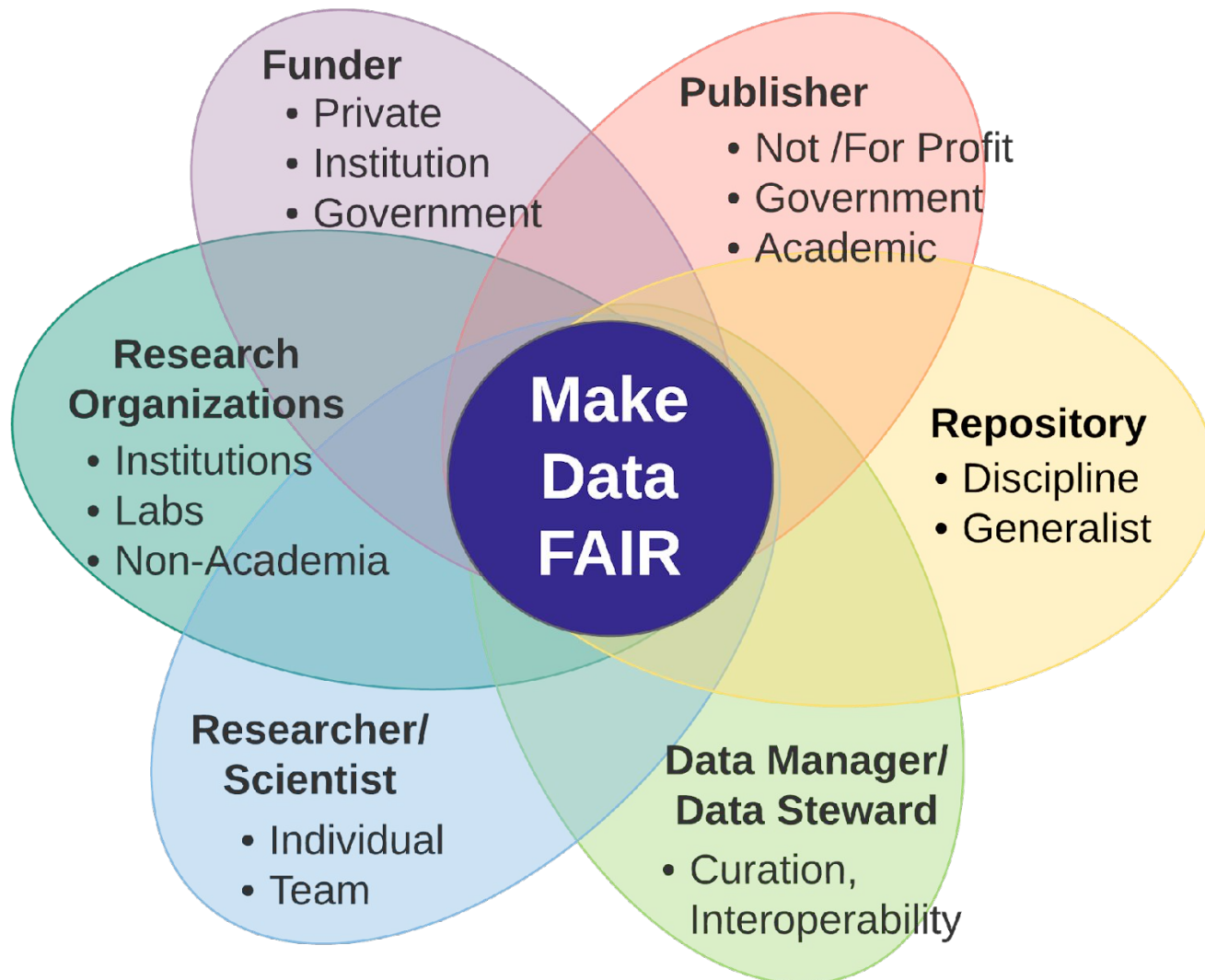
# OPEN SCIENCE –TRANSPARENCY AND TRUST

**“Increased openness leads to increased transparency and trust in scientific information...”**



Source:  
UNESCO Recommendation on Open Science,  
adopted November 2021

# Research Data Ecosystem



## Other Roles:

- Clinical Trials
- Service providers to the ecosystem
  - DataCite, Zenodo, CrossRef, CHORUS, Scholix
- International Efforts
  - ISC, CODATA, RDA, GO FAIR
- Cyberinfrastructure
- IRBs
- Industry
- Instrument and tool providers
- Societies
- Research Coordination Networks (RCNs)



# KEY CHALLENGES OF THE 21<sup>ST</sup> CENTURY

- Growing population of 7-10 billion and their needs for food, energy, water
- Major health issues associated with contaminated air, soil, and water
- Massive climate change experiment underway
- Key limited global resources (Li, P, REE's, clean water...)
- Ongoing energy transition from fossil fuels to sustainable sources
- Economic sustainability dependent on reliable transportation, navigation, trade
- Protect life and property from natural hazards with better forecast modeling of Earth's systems

For this we need Convergence research and Transdisciplinary research



**THERE IS ONLY ONE EARTH**

EARTHRISE

CREDIT:

NASA, APOLLO 8, BILL ANDERS

PROCESSING: JIM WEIGANG

**CONVERGENCE  
RESEARCH,**

**TRANSDISCIPLINARY,  
RESEARCH**

**AND HUMANITY,**

**...BENEFIT FROM OPEN  
SCIENCE PRACTICES**





"IF YOU WANT TO GO FAST, GO ALONE;  
BUT IF YOU WANT TO GO FAR, GO TOGETHER."

- AFRICAN PROVERB

Its time for PID communities to work  
together on implementation

# PID RECOMMENDATIONS TO IMPLEMENTATION

- Roles vs Accountability – Make sure each workflow actors (“stakeholder”) knows clearly what they need to do, and then hold them accountable
- Stakeholder specific value statements
- Broad coordination, persistence, papers, society meetings, progress reports, “coalition of the willing”
- Expand the PID champions; bestow authority; include all the workflow actors
- Mindfully update/instantiate governance that un-entrenches colonial decision making

AND...EVERYTHING MARK PARSONS SAID!!!



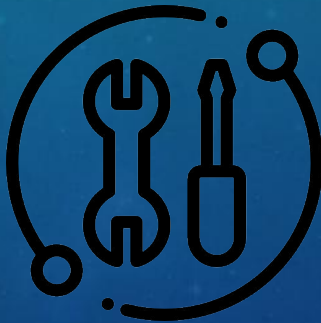
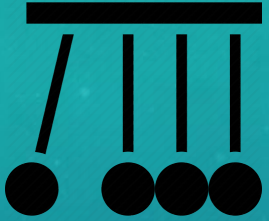
# Thank you



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# AGU'S OPEN SCIENCE AND DATA LEADERSHIP



- Discipline-specific Data Management Guidance
- Data and Software Sharing and Citation
- Physical Samples Persistent Identifiers (PIDs) and Citation
- Instrument and Facility PIDs
- Complex Citations
- Responsible AI / Human-Centered AI
- CARE Principles – Publishing Guidelines
- Notebooks Now! Project
- Open Science and Data Help Desk
- Data and Digital Output Management Plan Guidance