

# Belmont Forum and the e-Infrastructures & Data Management Initiative Action

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BoF Science-driven e-Infrastructures Innovation (SEI) for enhancement  
of transnational, interdisciplinary and transdisciplinary data use in  
environmental change research

RDA 11 Plenary, March 22, 2018



# International Partnership of Funding Agencies and Science Councils



- *More than 25 national science-funding agencies and science councils + some NGOs*
- *Increase impact of environmental research and data : transnational, transdisciplinary CRAs*
- *Promote and leverage policies, methods and systems for: transnational data FAIRness, sharing research products and data stewardship*

# A Collaborative Science-Driven Funding Strategy

Research at the nexus of funding, research, and stakeholder interest



*Coastal Vulnerability*

*Arctic Observing and Science for Sustainability*



*Freshwater Security*

*Mountains as Sentinels of Change*



*Food Security and Land Use Change*

*Climate Predictability and Inter-regional Linkages*



*Biodiversity and Ecosystem Services*

*Food-Water-Energy Nexus*

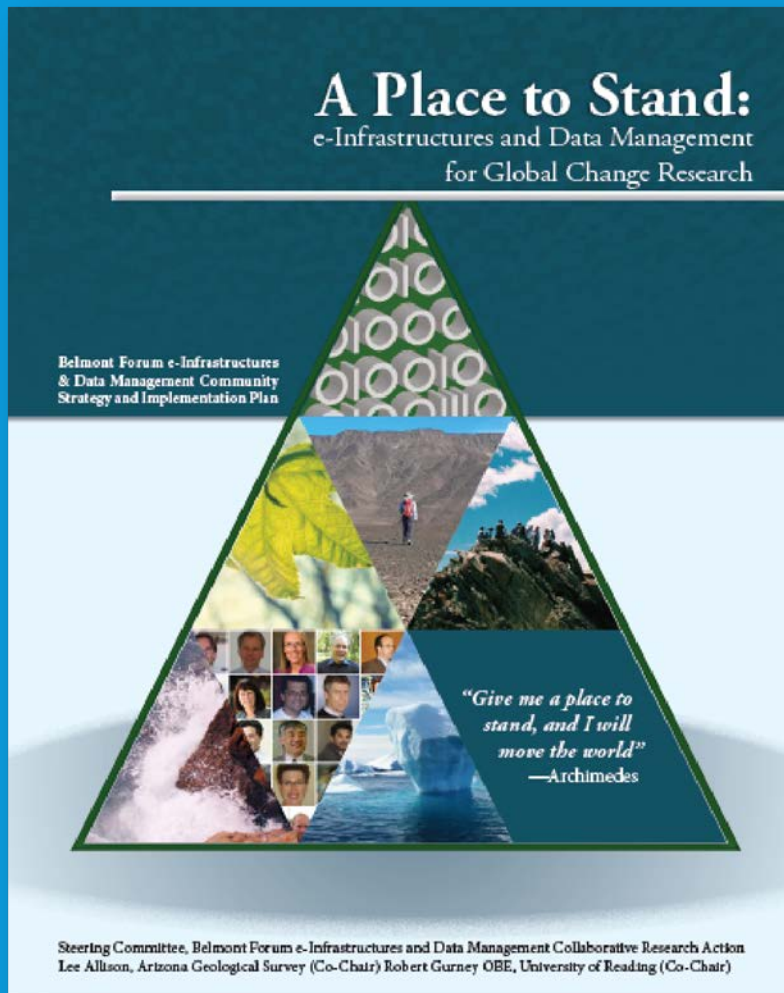


*Transformations to Sustainability*



- Transdisciplinary environmental global change research challenges
- ***Transnational Collaborative Research Actions***
- ***In Phase with Research and science communities and their research practices***

# e-Infrastructures & Data Management Informative Action



**Belmont Forum approved e-  
I&DM Project and adopted  
Open Data Policy and  
Principles October 2015**



# Changing Data Policy, Data Stewardship and Research Practices

## Data and Digital Objects Management Plan

- Leveraging and coordinating across BF funding agencies
- Required for all future BF Cooperative Research Actions

## Open and FAIR Data

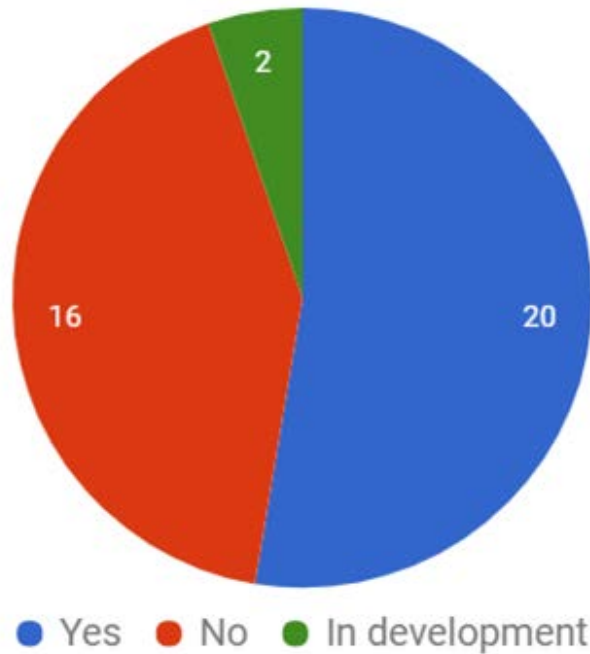
- Collaborative implementation through the science-driven BF CRAs
- Joint developments between BF Agencies and Science Publishers
- Collaborative developments of projects and funding agencies identifiers

## Legal and Cyber-security considerations

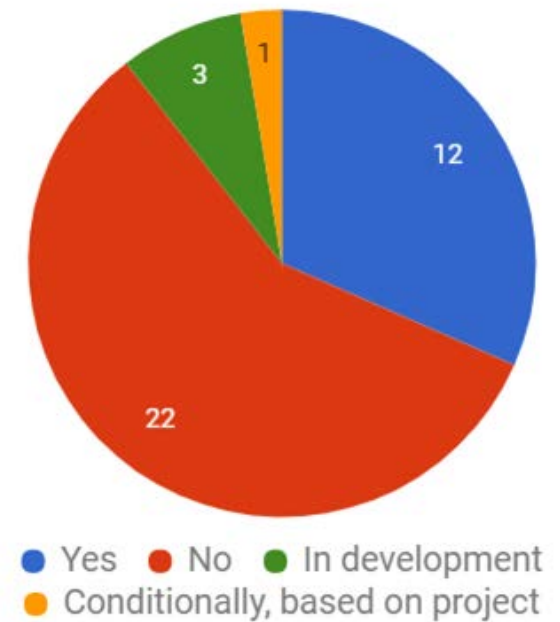
- Implementation of Working Groups recommendations focusing on transnational and transdisciplinary aspects

## Belmont Forum Member Data Policies

Funders with written policies for open data



Funders requiring a Data Management Plan (at any stage)



# Science-driven e-Infrastructure Innovation for Transnational, Transdisciplinary Data use

✓ **Bring environmental scientists with data and computing scientists around science-driven barriers**

- **Advancing** transnational, transdisciplinary data use to impact BF research and decision making.

✓ **Link research thinking and technological innovation in science-driven context**

- **Improving** transnational data access, management and trust in transdisciplinary contexts
- **Accelerating** rates at which information is gleaned from multi-source data
- **Delivering** translatable and cost-effective solutions that benefit to the broader community

✓ **Enable a BF transnational, transdisciplinary framework**

- **Federating** data integration and analysis systems built on national



# Changing Culture and Behaviours

Domain Scientists (CRAS)

## Curricula Framework

- Making non-data scientists data smarter

FAIR data principles, services and tools

Certified Training on

- transdisciplinary science, science communication, data management and stewardship