



Update on the NSB Priorities and Recommendations on Scientific Data Management

February 23, 2012 • Council on Governmental Relations

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Data Policy Task Force

- Established at the February 3-4, 2010 NSB meeting
- Charge: further defining the issues and outlining possible options to make the use of data more effective in meeting NSF's mission.

Data Policy Task Force Strategies

Monitor Impact

Monitor the impact of NSF updated implementation of the Data Management Plan requirement to inform a review of NSF policy.

Statement

Considering issues of data policy, Open Data movements, and related issues, the Task Force will then develop a "Statement of Principles."

Guidance

Provide guidance to subsequent Board efforts to develop specific actionable policy recommendations focused, initially, on NSF, but could potentially promulgate through other Federal agencies in a national and international context.

1. Openness,
Transparency

2. Open Access
Publishing Links

3. Stakeholder
participation

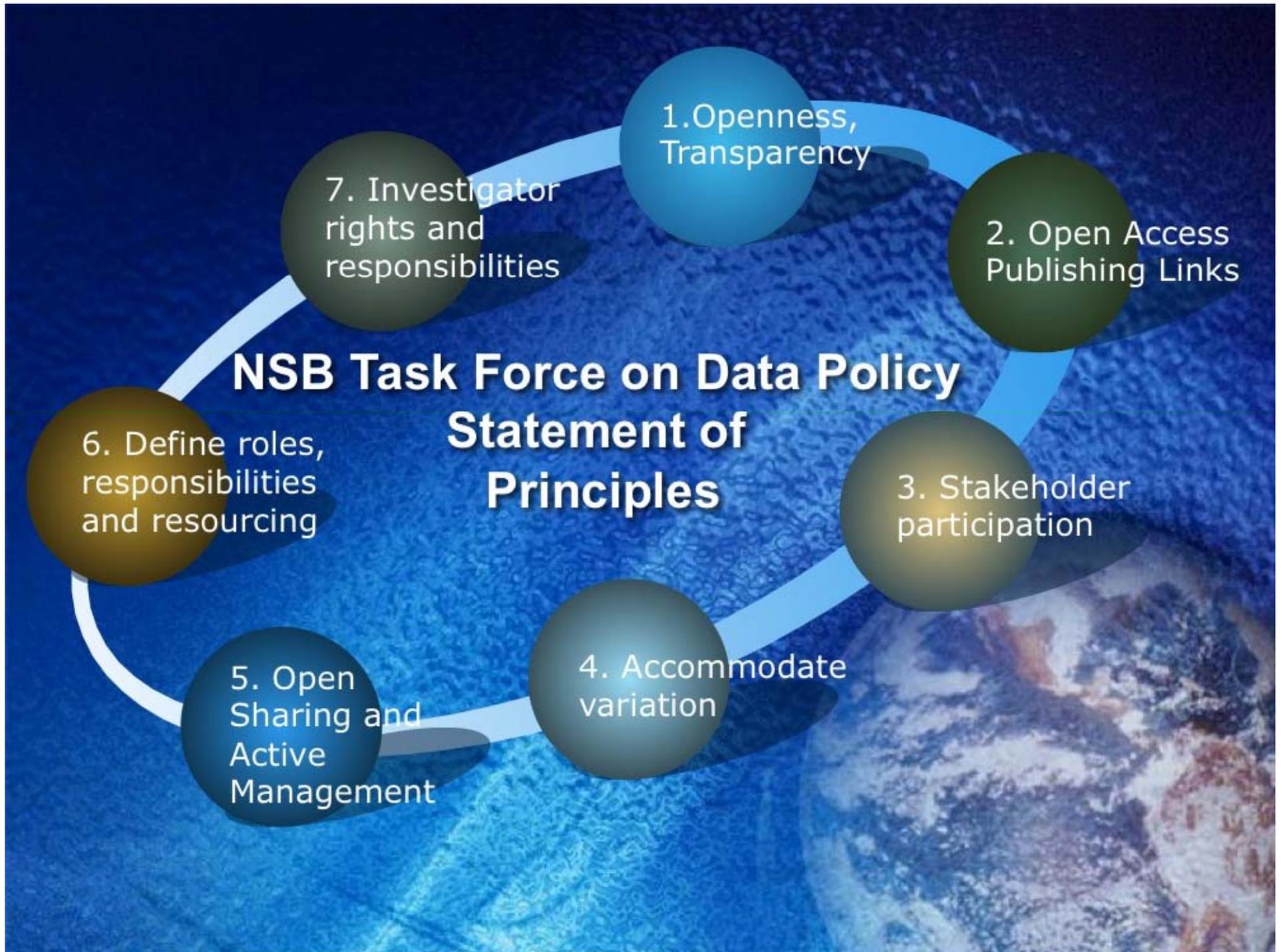
4. Accommodate
variation

5. Open
Sharing and
Active
Management

6. Define roles,
responsibilities
and resourcing

7. Investigator
rights and
responsibilities

NSB Task Force on Data Policy Statement of Principles



1. Openness and transparency are critical to continued scientific and engineering progress and to building public trust in the nation's scientific enterprise.

This applies to all materials necessary for verification, replication and interpretation of results and claims, associated with scientific and engineering research.

1. Openness,
Transparency

2. Open Access
Publishing Links

2. Open Data sharing is closely linked to Open Access publishing and they should be considered in concert.

**NSB Task Force on Data Policy
Statement of Principles**

3. The nation's science and engineering enterprise consists of a broad array of stakeholders, all of which should participate in the development and adoption of policies and guidelines.

4. It is recognized that standards and norms vary considerably across scientific and engineering fields and such variation needs to be accommodated in the development and implementation of policies.

3. Stakeholder participation

4. Accommodate variation

**Task Force on Data Policy
Statement of Principles**

NSB Task Force on Data Policy Statement of Principles

6. All data and data management policies must include clear identification of roles, responsibilities and resourcing.

6. Define roles, responsibilities and resourcing

5. Policies and guidelines are needed for open data sharing which in turn requires active data management.

5. Open Sharing and Active Management



7. Investigator
rights and
responsibilities

7. The rights and responsibilities of investigators are recognized. Investigators should have the opportunity to analyze their data and publish their results within a reasonable time.

Areas of Recommendation

Commitment to research data sharing

Reproducibility

Education, training and workforce development

Longevity and sustainability

NSB Recommendations on Scientific Data Management



1. Leadership

Provide leadership to Federal agencies and other national and international stakeholders in the development and implementation of digital research data policies, including the promotion of individual scientific communities to establish data sharing and management practices that align with NSF data policies.

1. Leadership



National
Science
Board
Recommendations on
Scientific Data
Management

2. Data Sharing

Consistent with the digital research data generated in research projects, require grantees to make both the data and the methods and techniques used in the creation and analysis of the data accessible for the purposes of building upon or verifying figures, tables, findings, and conclusions in peer-reviewed publications.

Similar requirements are appropriate when data are requested for the purpose of extending the scientific conclusions through further research. Data should be shared using persistent electronic identifiers, which enable automatic attribution of authors and award funding.



2.
Data Sharing

1.
Leadership

National
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Board
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Scientific Data
Management

3. Data and Computation Professionals Support

Continue to expand the support of computational and data-enabled science and engineering researchers and cyberinfrastructure professionals to take advantage of shared, accessible data and to forward emerging science.

3.
Data & Computation
Professionals
Support

2.
Data Sharing

1.
Leadership



National
Science
Board
Recommendations on
Scientific Data
Management

4. Stakeholder Panel

Convene a panel of stakeholders to explore and develop a range of viable long-term business models and issues related to maintaining digital data and provide a key set of recommendations for action.

4.
Stakeholder
Panel

5.
Sustainability
Models

2.
Data Sharing

1.
Leadership



National
Science
Board
Recommendations on
Scientific Data
Management

5. Sustainability Models

Further the expansion of sustainable data management, including preservation and curation of pre-existing and newly generated long-lived data, by encouraging development and implementation of data sharing infrastructure and long-term business models that encompass the range of research communities, research institutions, and research grants, as outlined in recommendations of the panel formed to explore these issues in Recommendation 4.

5.
Sustainability
Models

older
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National
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Scientific Data
Management

1.
Leadership

NSB Recommendations on Scientific Data Management



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