DOE Implementation of the OSTP "Nelson Memo"

HEPAP Meeting
May 9th, 2024

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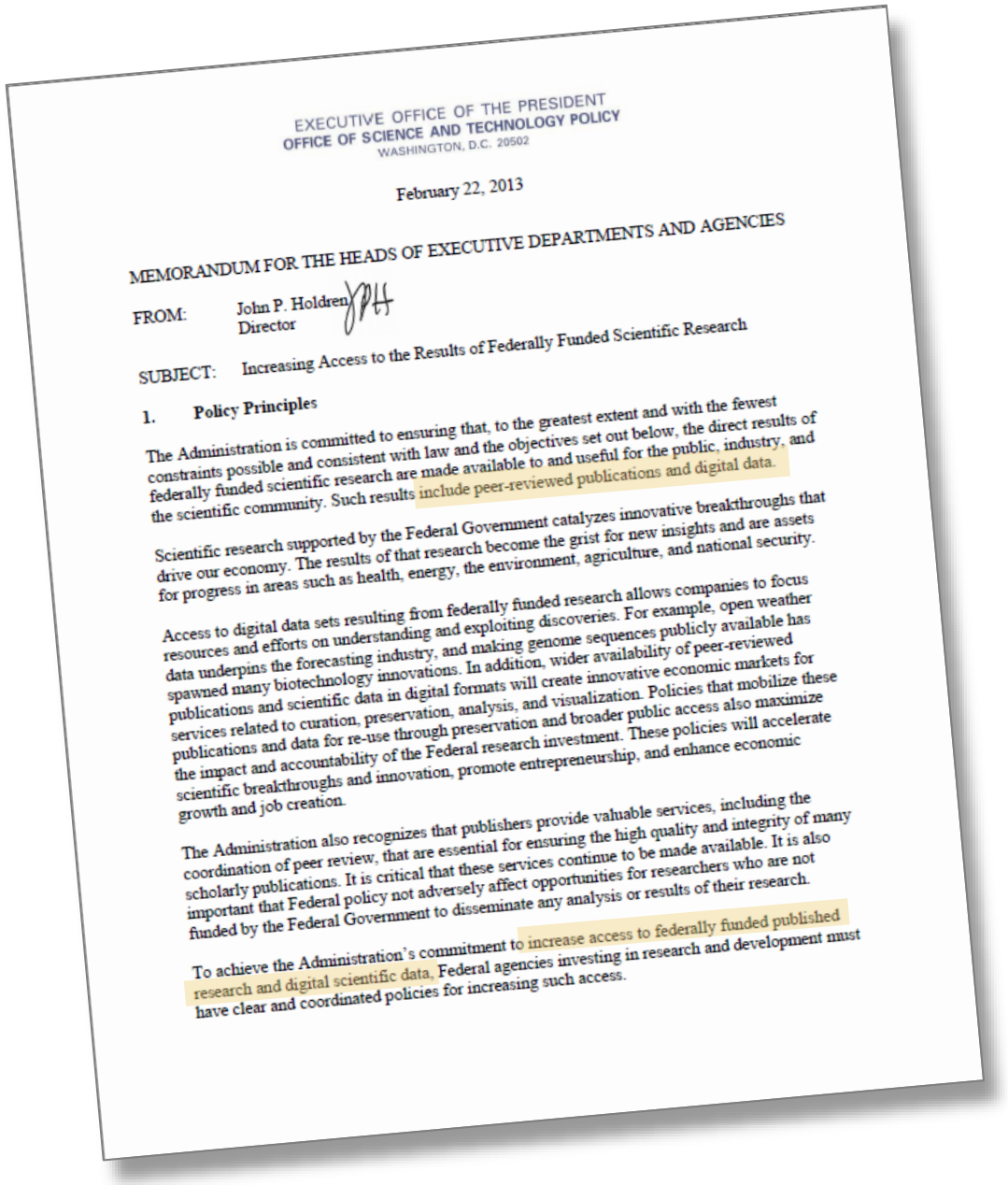


EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20502

February 22, 2013

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: John P. Holdren
Director

SUBJECT: Increasing Access to the Results of Federally Funded Scientific Research

1. Policy Principles

The Administration is committed to ensuring that, to the greatest extent and with the fewest constraints possible and consistent with law and the objectives set out below, the direct results of federally funded scientific research are made available to and useful for the public, industry, and the scientific community. Such results include peer-reviewed publications and digital data.

Scientific research supported by the Federal Government catalyzes innovative breakthroughs that drive our economy. The results of that research become the grist for new insights and are assets for progress in areas such as health, energy, the environment, agriculture, and national security.

Access to digital data sets resulting from federally funded research allows companies to focus resources and efforts on understanding and exploiting discoveries. For example, open weather data underpins the forecasting industry, and making genome sequences publicly available has spawned many biotechnology innovations. In addition, wider availability of peer-reviewed publications and scientific data in digital formats will create innovative economic markets for services related to curation, preservation, analysis, and visualization. Policies that mobilize these publications and data for re-use through preservation and broader public access also maximize the impact and accountability of the Federal research investment. These policies will accelerate scientific breakthroughs and innovation, promote entrepreneurship, and enhance economic growth and job creation.

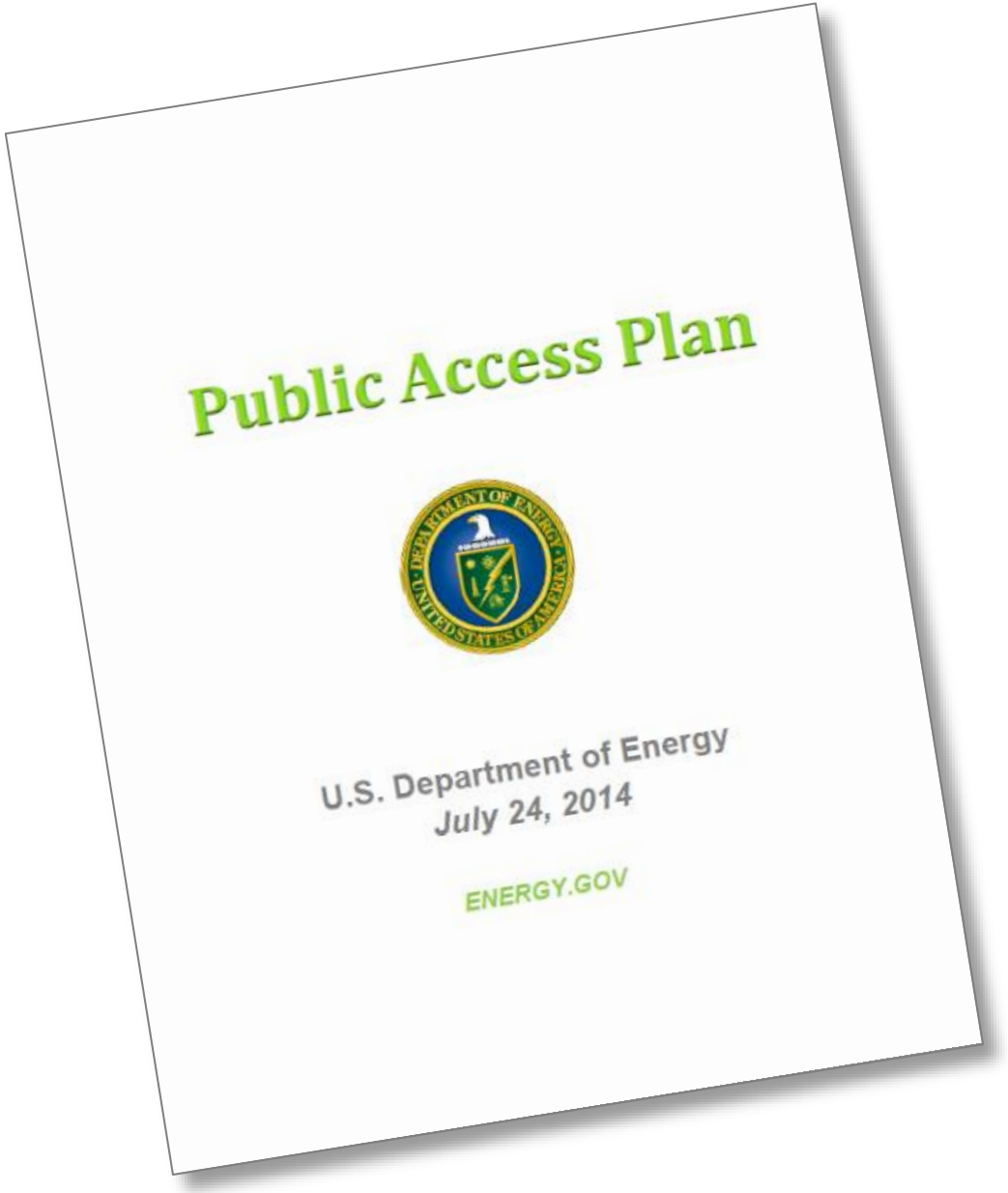
The Administration also recognizes that publishers provide valuable services, including the coordination of peer review, that are essential for ensuring the high quality and integrity of many scholarly publications. It is critical that these services continue to be made available. It is also important that Federal policy not adversely affect opportunities for researchers who are not funded by the Federal Government to disseminate any analysis or results of their research.

To achieve the Administration's commitment to increase access to federally funded published research and digital scientific data, Federal agencies investing in research and development must have clear and coordinated policies for increasing such access.

2013 OSTP Public Access Memo

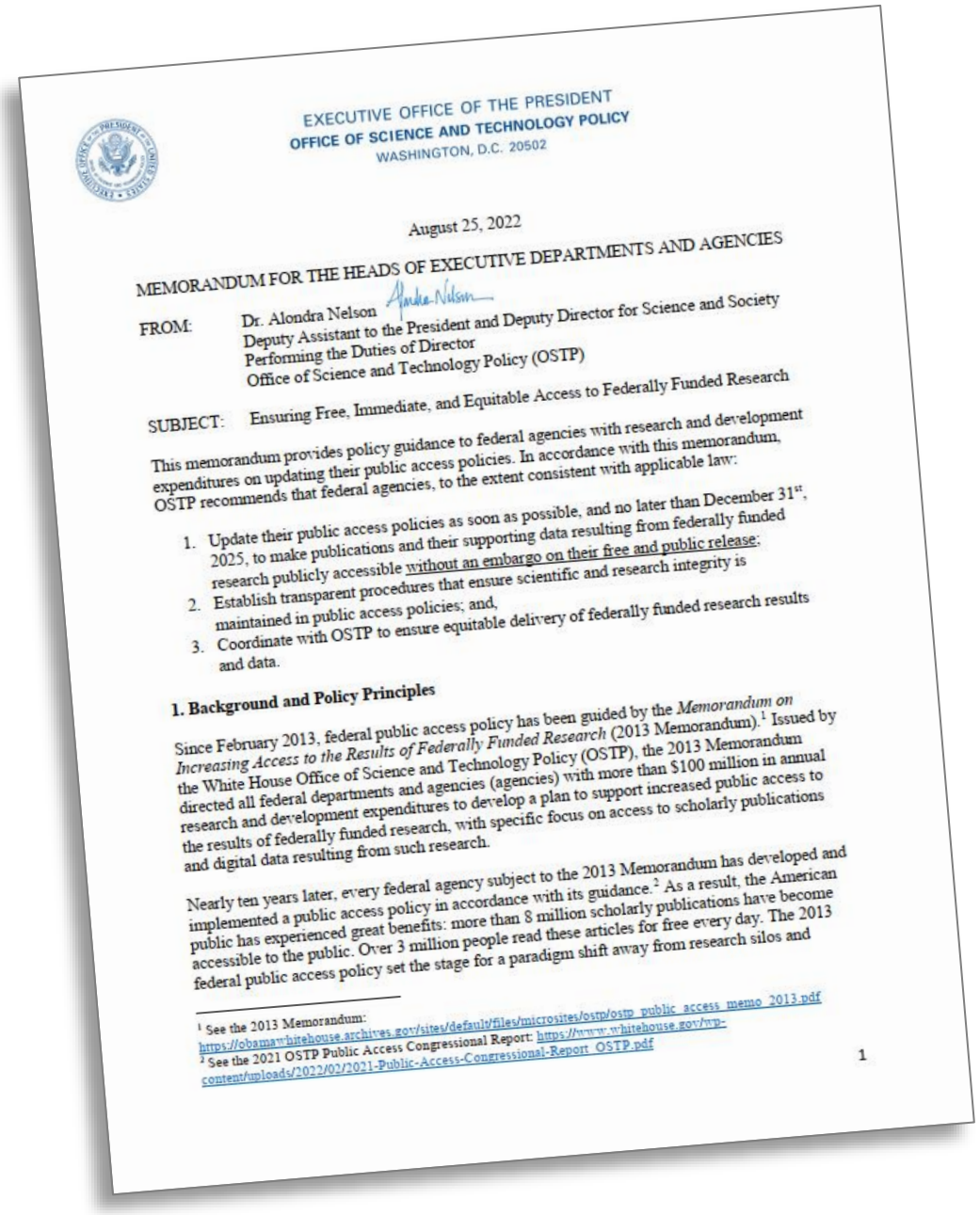
Issued by OSTP Director John Holdren

- Directed agencies to develop Public Access plans to ensure that results of federally funded scientific research are made publicly available, including **peer-reviewed publications** and **digital data**
- Allowed for a **1-year embargo** of peer-reviewed articles after publication



2014 DOE Public Access Plan

- Publications Model
  - Author submission of accepted manuscripts to DOE within 12 months of publication
  - Government purpose license
  - Voluntary participation of publishers
  - DOE PAGES® as agency repository
- Data Management Plan (DMP) requirements



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20502

August 25, 2022

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: Dr. Alondra Nelson
Deputy Assistant to the President and Deputy Director for Science and Society
Performing the Duties of Director
Office of Science and Technology Policy (OSTP)

SUBJECT: Ensuring Free, Immediate, and Equitable Access to Federally Funded Research

This memorandum provides policy guidance to federal agencies with research and development expenditures on updating their public access policies. In accordance with this memorandum, OSTP recommends that federal agencies, to the extent consistent with applicable law:

1. Update their public access policies as soon as possible, and no later than December 31st, 2025, to make publications and their supporting data resulting from federally funded research publicly accessible without an embargo on their free and public release;
2. Establish transparent procedures that ensure scientific and research integrity is maintained in public access policies; and,
3. Coordinate with OSTP to ensure equitable delivery of federally funded research results and data.

1. Background and Policy Principles

Since February 2013, federal public access policy has been guided by the *Memorandum on Increasing Access to the Results of Federally Funded Research* (2013 Memorandum).[1] Issued by the White House Office of Science and Technology Policy (OSTP), the 2013 Memorandum directed all federal departments and agencies (agencies) with more than $100 million in annual research and development expenditures to develop a plan to support increased public access to the results of federally funded research, with specific focus on access to scholarly publications and digital data resulting from such research.

Nearly ten years later, every federal agency subject to the 2013 Memorandum has developed and implemented a public access policy in accordance with its guidance.[2] As a result, the American public has experienced great benefits: more than 8 million scholarly publications have become accessible to the public. Over 3 million people read these articles for free every day. The 2013 federal public access policy set the stage for a paradigm shift away from research silos and

[1] See the 2013 Memorandum: https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf
[2] See the 2021 OSTP Public Access Congressional Report: https://www.whitehouse.gov/wp-content/uploads/2022/02/2021-Public-Access-Congressional-Report_OSTP.pdf

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August 2022 Nelson Memo

All federal science agencies, including DOE, required to develop new Public Access Plans

- No embargo – immediate access to publications
- Use/re-use; machine readability; equitable access
- Immediate access to displayed or underlying data
- Persistent identifiers

Implementation Timeline

FY25 will be a transition year, with full implementation for Publications expected in FY26.

2022 OSTP Public Access Memo Section Descriptions

Section 3: Publications & Data | Section 4: PIDs to Ensure Research & Scientific Integrity | Section 5: Interagency Coordination

- **Aug 25, 2022**: OSTP Public Access Policy Guidance released
- **Feb 21, 2023**: Section 3: DOE Public Access Plan due to OSTP/OMB
- **Dec 31, 2024**: Section 3: Last date to publish related DOE policies
- **Dec 31, 2024**: Section 4: Last date to provide optional DOE Public Access Plan update to OSTP/OMB
- **Dec 31, 2025**: Section 3: Last date for related policies to be effective
- **Dec 31, 2026**: Section 4: Last date to publish related DOE policies
- **Dec 31, 2027**: Section 4: Last date for related policies to be effective

Section 5: Ongoing interagency coordination

Development of DOE's New Public Access Plan – Released June 2023

Intra-Agency Coordination

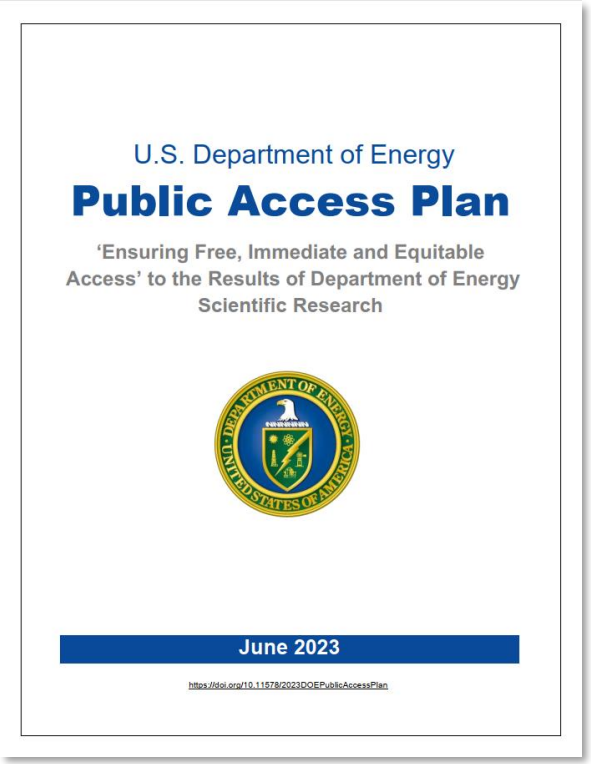
- DOE-wide participation (EERE, FE, NE, OE, ARPA-E, MA, GC, NNSA)
- SC led author team
- Coordinated with DOE and SC Working Groups on Digital Data
- DOE researcher community input through Labs' STI managers

Interagency Coordination

- OSTP Subcommittee on Open Science (SOS); SC co-chairs three SOS working groups
- Persistent Identifier Services partners from 12 agencies

External Community Engagement

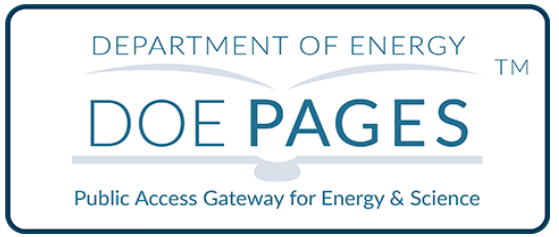
- Professional societies
- Publishers
- Libraries



https://www.energy.gov/doe-public-access-plan

Publications

- Move from 12-month embargo to immediate access upon publication
- Continue to submit Accepted Manuscripts via E-Link, but earlier
- Provide access through DOE's designated repository, DOE PAGES®



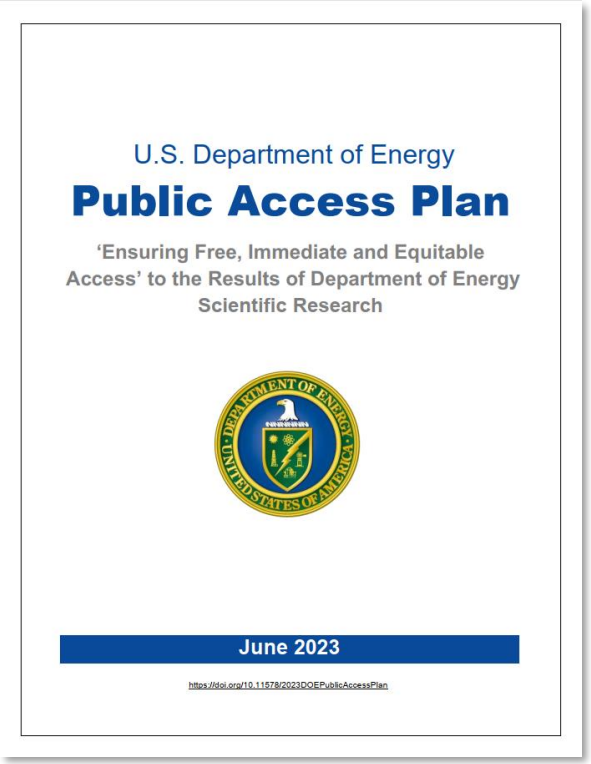
Author's manuscript is accepted by publisher and completes peer-review process

Author submits the final peer-reviewed accepted manuscript to DOE via E-Link, using established processes

After receipt and processing, accepted manuscript is made available on DOE PAGES®

Publications – Implementation

- Implementation team
  - OSTI (Publications & PIDs); Office of Science (Data)
- Work on policy and guidance will continue throughout 2024:
  - Revisions of DOE Directive 241.1B and Contractor Requirements Document (CRD)
  - Updates to language in funding announcements and award packages, etc.
- Formation of STIP focus group on publisher-related topics (APCs, OA fees, Read & Publish agreements)
- Coordination with other federal agencies
  - Subcommittee on Open Science and participation in various Working Groups



https://www.energy.gov/doe-public-access-plan

What does “Immediate” mean?

- OSTP and federal agencies recognize time is needed to complete workflow processes, including quality assurance and metadata curation

- Moving from 12 months embargo to Immediate:
  - Submission of final, peer-reviewed Accepted Manuscript (AM) “Upon Acceptance” is preferred (versus “upon publication”)

- During transition years (FY25-26):
  - Goal is submission of AM within 60-90 days

- Ultimate goal is to make AMs accessible as close to publication date as possible

Persistent Identifiers (PIDs)

From the White House Memos – ***"A digital identifier that is globally unique, persistent, machine resolvable and processable, and has an associated metadata schema."***

A long-lasting, managed, and registered unique digital reference (often in the form of a URL) to a research object (e.g. person, organization, research output, award) that can be represented or described online.

Collecting Metadata and Associated PIDs	PIDs for Researchers	PIDs for R&D Awards
Need to collect metadata associated with publications and data. Metadata should include: • author names, affiliations, and funding, referencing PIDs, • the date of publication; and, • a unique digital persistent identifier for the research output.	Agencies need to instruct researchers to obtain a PID for themselves. PID must be used in publishing when available and when reporting R&D outputs. PID must meet the common/core standards of a PID service defined in the NSPM-33 Implementation Guidance.	Agencies to assign unique digital persistent identifiers to R&D awards and intramural research protocols.

PID Examples (that meet the definition)

PIDs for Research Outputs – Publications, Reports, Data, Software		
	doi®	https://doi.org/10.1016/j.rinp.2023.106511 https://doi.org/10.11578/dc.20230501.1
PIDs for Awards – Grants, Contracts, Facility Use		
	doi®	https://doi.org/10.46936/10.25585/60000014
PIDs for People – PIs, Researchers, Senior/Key Personnel		
	ORCID	https://orcid.org/0000-0002-8523-1478
PIDs for Organizations – Funders, Universities, Publishers, Facilities		
	ROR Funder Registry	https://ror.org/01bj3aw27 http://doi.org/10.13039/100000015

Current DOE Data Management Overview

DOE data management principles		
Enable discovery	Share, preserve, validate	Cost management

DOE Data Management Plan (DMP) requirements			
Share, preserve, validate	Make data associated with publications accessible	Availability of data management resources	Privacy, security, confidentiality

- DMPs are reviewed, but there is flexibility in the process used for collection and review
- Additional requirements may be identified in a solicitation or invitation for research funding
- Implementation is supported through commensurate budget for the approved DMP scope

Since October 1, 2014, SC has received and reviewed over 30,000 proposals subject to our current DMP requirements

Full DOE policy: ***https://www.energy.gov/datamanagement/doe-policy-digital-research-data-management***
Full SC policy: ***https://science.osti.gov/Funding-Opportunities/Digital-Data-Management***

2023 Public Access Plan Data Management Overview

2023 PAP: Scientific Data Management Principles		
Increase pace of scientific discovery	Protect integrity, enhance value of science	Maximize appropriate data sharing

2023 PAP: Data Management and Sharing Plan (DMSP) Requirements				
Validation and replication of results	Timely and equitable access	Data repository selection	Data management and sharing resources	Data sharing limitations

- All DOE-funded R&D awards and contracts will be subject to a DOE approved DMSP, data reporting
- Targeting updates to Order 241.1B, Acquisition Letter, Financial Assistance Letter (Award T&C), FARC
- DMSP implementation will be supported through commensurate budget for approved scope
- OSTP Memo sets timeline for implementation by December 31, 2025

Full principles and requirements available in 2023 DOE Public Access Plan (https://doi.org/10.11578/2023DOEPublicAccessPlan)

Data Management Requirements Updates

- "Data Management Plans" will become "Data Management and Sharing Plans"
  - Updating principles to emphasize equity and "maximize appropriate sharing"
  - Exploring opportunities to enhance compliance monitoring and evaluation metrics

Data Management Plan		Data Management and Sharing Plan
• "Research Data" to validate research findings	→	• "Scientific Data" to validate and replicate research findings
• Data underlying publications should be made as accessible as possible	→	• Data underlying publications should be made available at time of publication
• No explicit requirement regarding other research data	→	• Timeline for sharing other scientific data
• No explicit requirement regarding repository selection	→	• Repository selection should align with NSTC Desirable Characteristics guidance

NSTC Desirable Characteristics of Data Repositories for Federally Funded Research (https://doi.org/10.5479/10088/113528)

Thank you!

Questions?