Federal Geographic Data Committee (FGDC) and the National Spatial Data Infrastructure (NSDI)

Joy Pochatila, NSDI Geo Data Coordinator

08 April 2025

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FEDERAL GEOGRAPHIC DATA COMMITTEE

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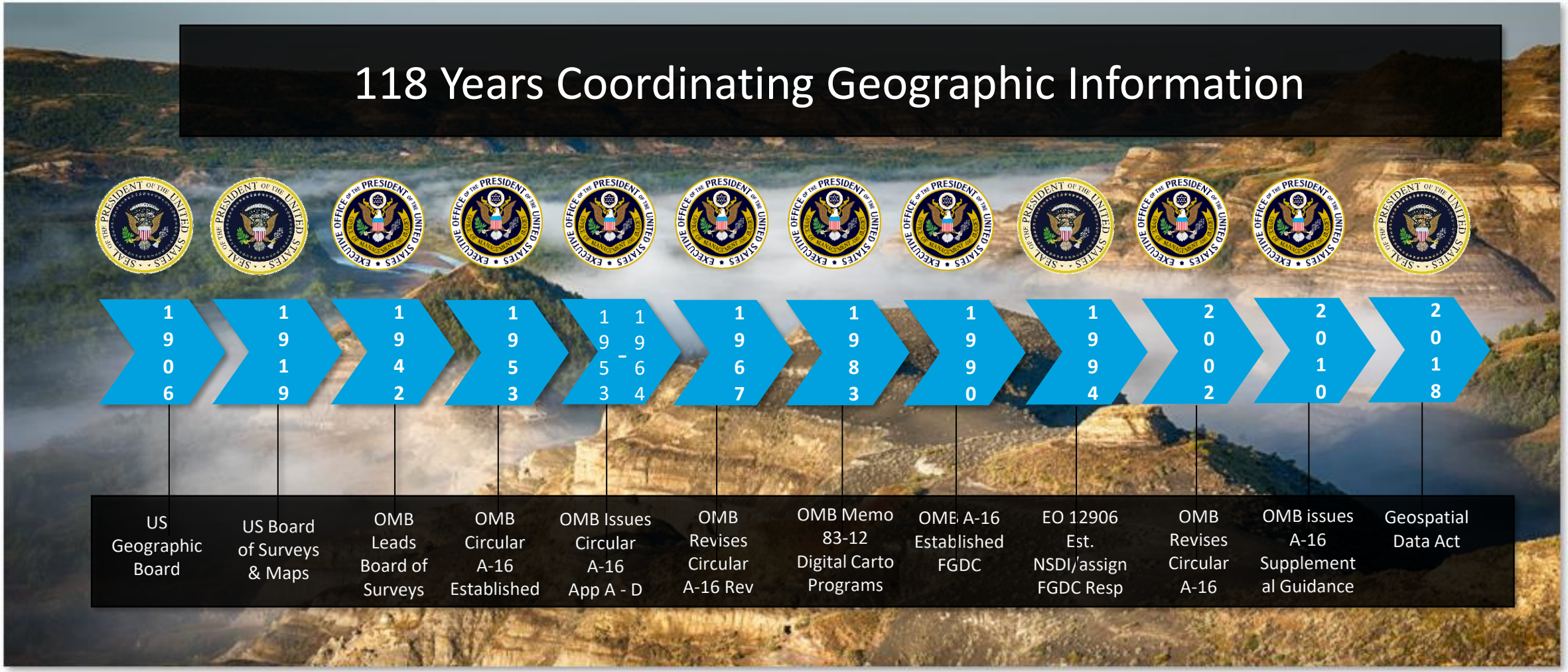
Agenda

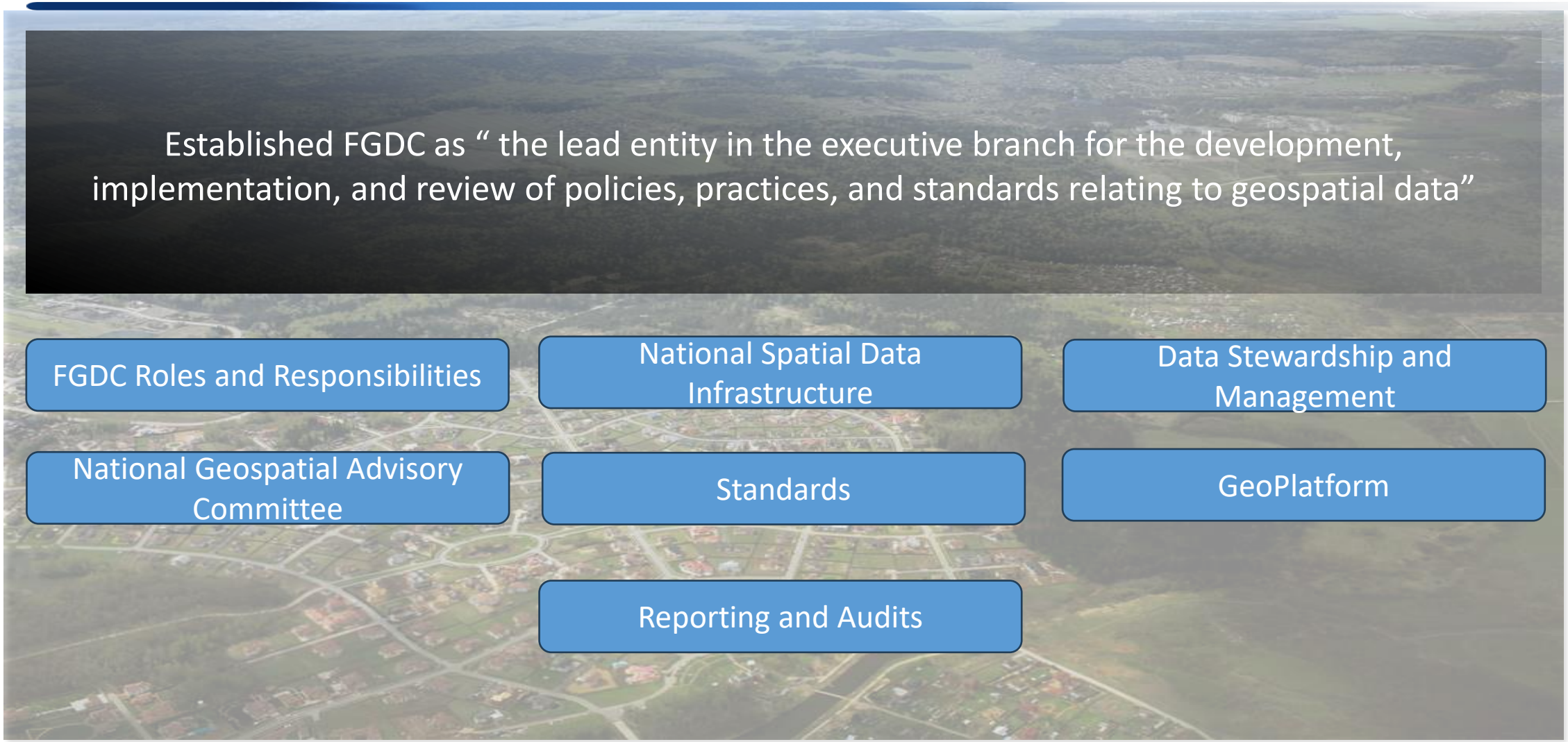
- Intros
- Geospatial Data Act of 2018 (GDA)
- The Federal Geographic Data Committee
- NSDI 101
- NSDI Strategic Plan – How to achieve NSDI 2035
- Next steps - Implementation plan
  - Federal Example
  - SDI Modernization Project w/ OGC

History | *OMB Coordination of Geographic Information*



OMB has been the lead for federal geospatial policy since 1942.

Geospatial Data Act (GDA) of 2018



Who is the FGDC?

FGDC is a 32-member Interagency Committee.

FGDC Leadership

- Chair of FGDC: Secretary of the Interior
  - Traditionally delegated to Assistant Secretary for Water & Science
- Vice-Chair of FGDC: Director of Office of Management and Budget
  - Delegated to Office of the Federal Chief Information Officer
- FGDC Office of Secretariat (FGDC OS): USGS
  - Josh Delmonico, FGDC Executive Director, USGS Core Science Systems Mission Area
- GeoPlatform Managing Partner: DOI OCIO
  - Tod Dabolt, Chief Data Officer, DOI Office of the Chief Information Officer

FGDC Responsibilities

Federal

Oversight of NGDA Portfolio

Geospatial data standards

Operate GeoPlatform

Promote cost-effective strategies (data collection, maintenance, distribution, and preservation)

Report to Congress every 2 years

National

Develop and manage the NSDI strategic plan and geospatial data policy

Implement the NSDI (define roles and responsibilities for federal, state, tribal, and local governments, academia, and the private sector)

Advise Federal/non-Federal users of geospatial data on their NSDI responsibilities

Global

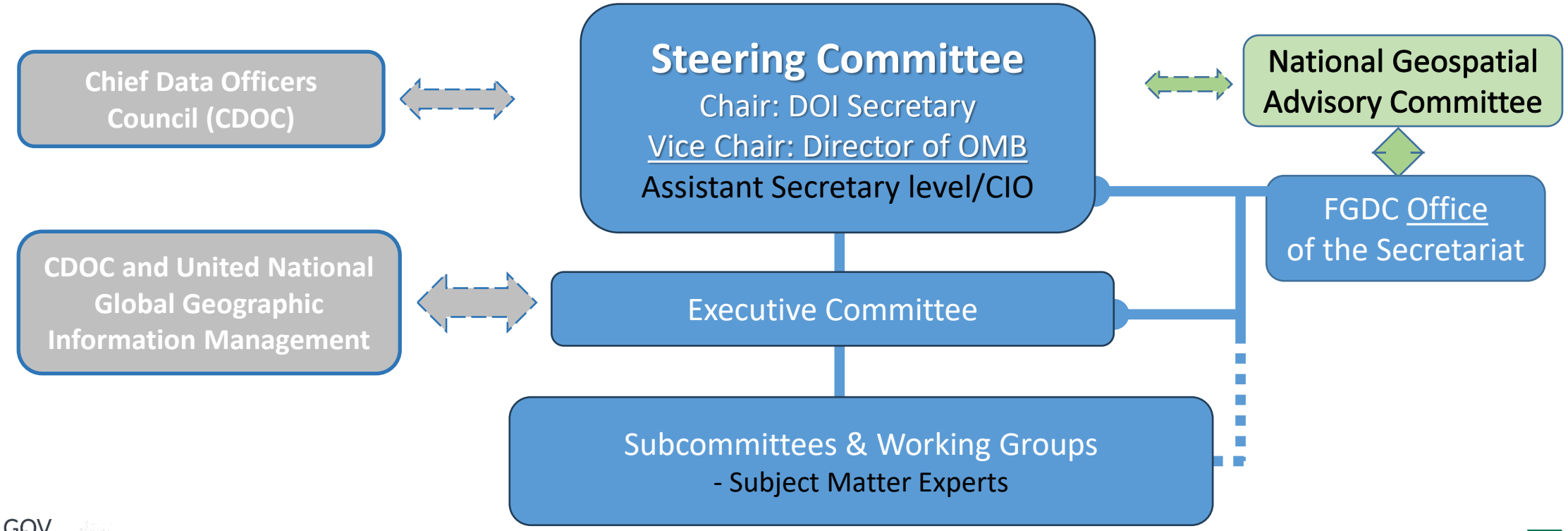
Coordination on global spatial data infrastructures

International geospatial data standards

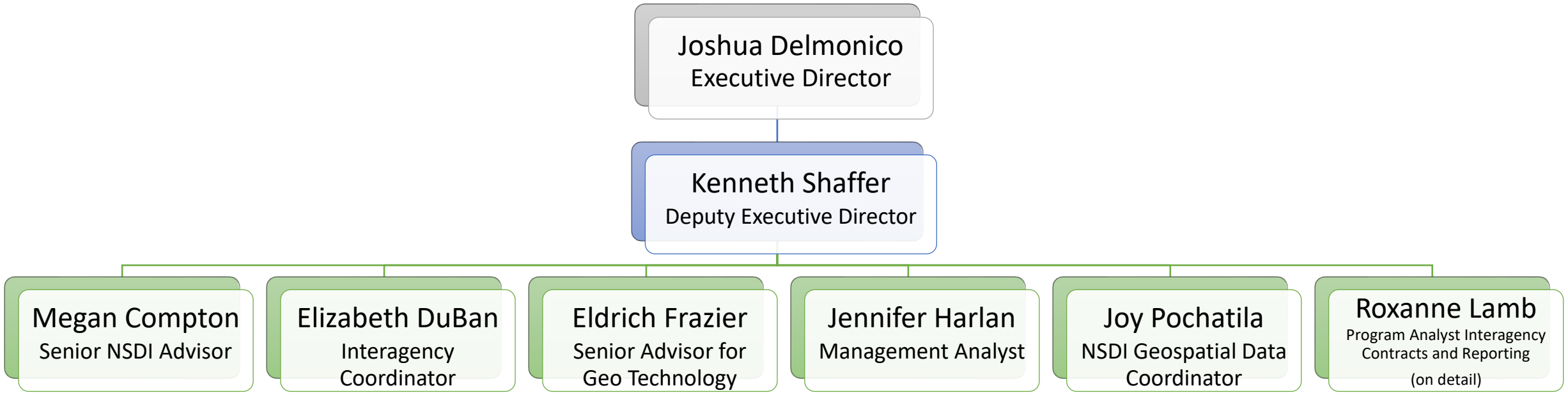
High Visibility and Impact.

FGDC Governance Structure

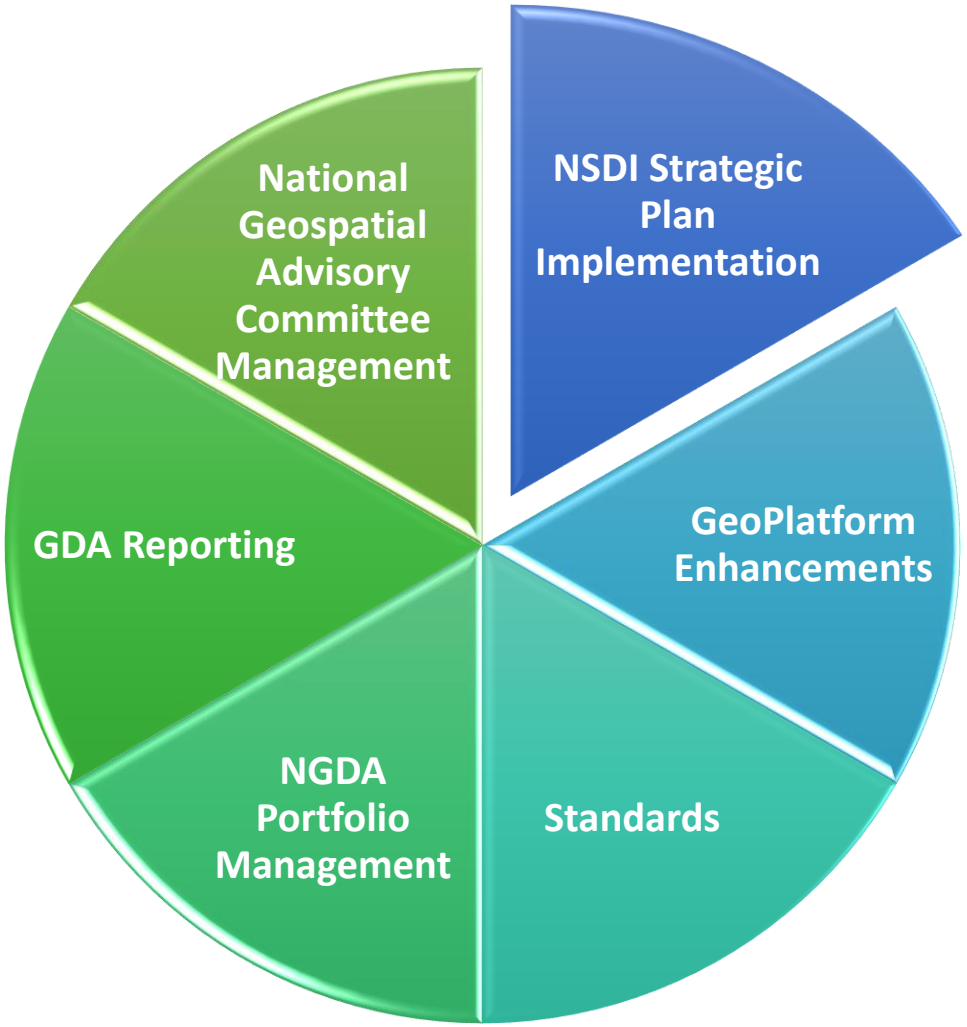
Federal Geographic Data Committee (FGDC) – 32 member interagency committee established within the Dept. of the Interior "which shall act as the lead entity in the executive branch for the development, implementation, and review of policies, practices, and standards relating to geospatial data." (43 USC Ch. 46 – Geospatial Data Act of 2018)



FGDC Office of the Secretariat



FGDC 2025 Activities



Stewardship of Data | *National Geospatial Data Asset (NGDA) Data Themes*

Unleashing Data for Public Good —
Facilitating Data for decision

The GDA requires the FGDC to designate NGDA data themes for investment and management by Federal agencies, for which the coordinated development, maintenance, and dissemination of geospatial data would benefit the Federal government and people of the United States.

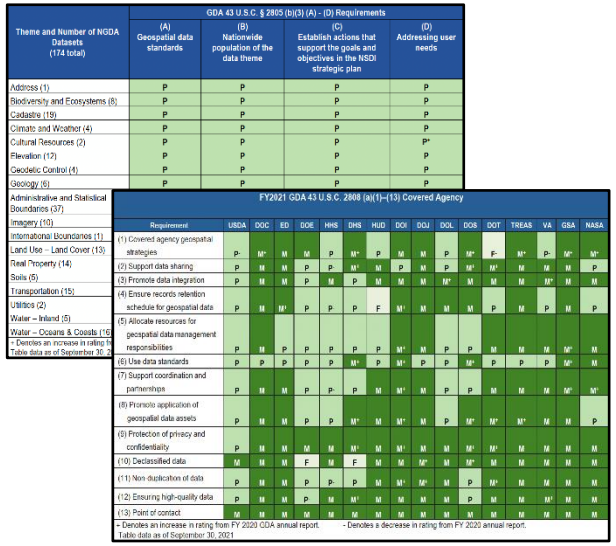
NGDA Themes | 18

NGDA Datasets | 150

GDA Reporting and Accountability to Congress

GDA performance reporting data is available in multiple formats for different audiences:

Individual Agency and NGDA Reports

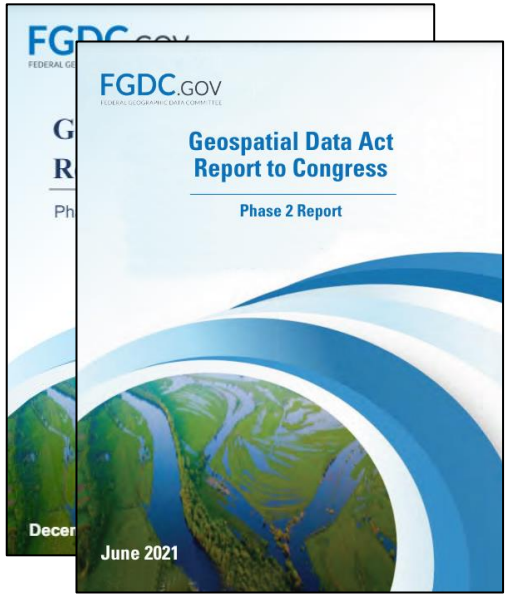


GDA Summary Report

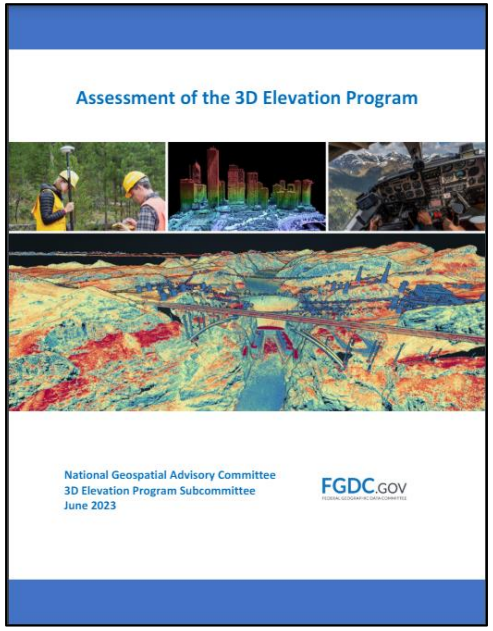
All GDA reporting data is available at: www.fgdc.gov/gda/gda-reports

National Geospatial Advisory Committee (NGAC)

Federal Advisory Committee reports to the FGDC Chair through the Designated Federal Officer



Input on Key Initiatives

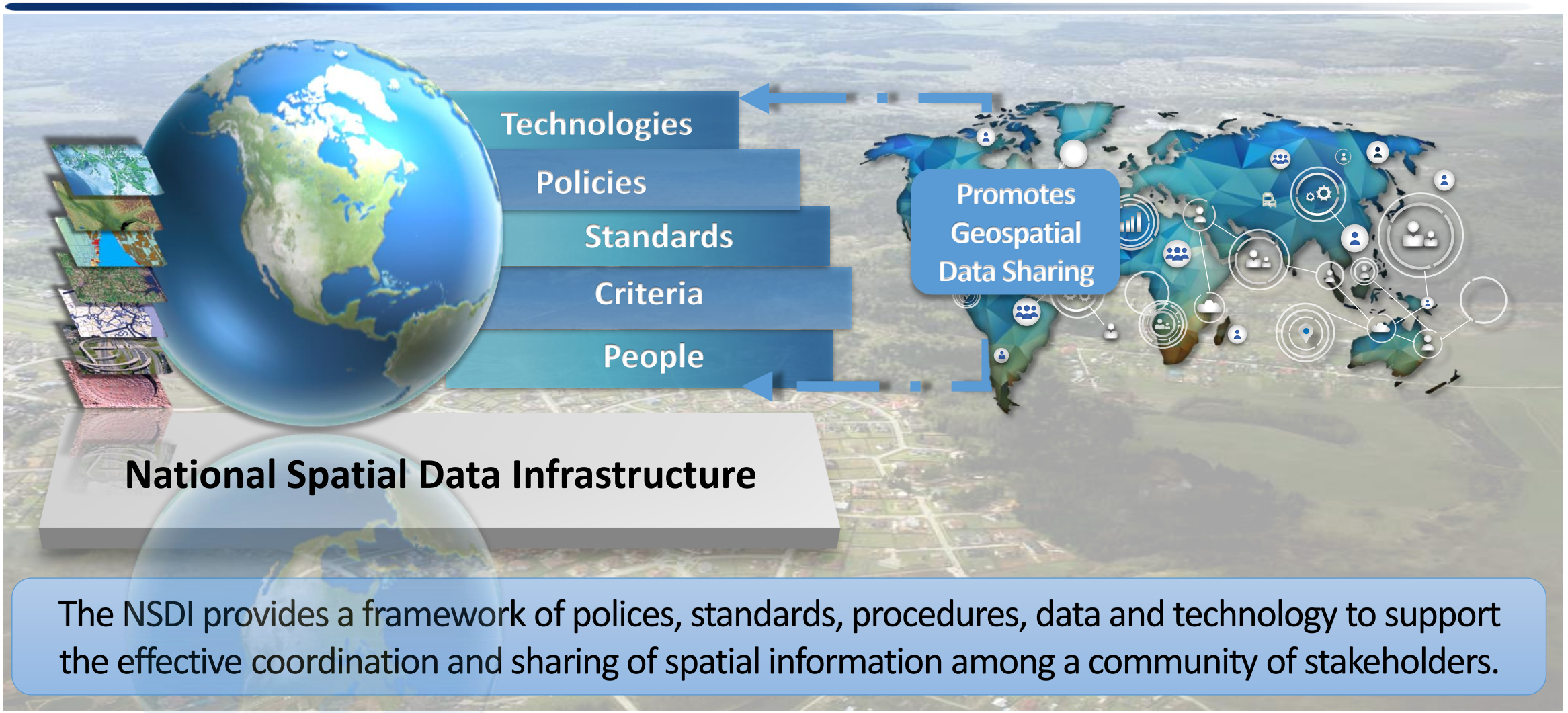


Advice on Federal Programs: 3DEP and Landsat Advisory Group

Cross-sector collaborative representation

NGAC meeting information and papers: www.fgdc.gov/ngac

NSDI 101: What is the National Spatial Data Infrastructure?



The NSDI provides a framework of polices, standards, procedures, data and technology to support the effective coordination and sharing of spatial information among a community of stakeholders.

National Spatial Data Infrastructure – The Components

National

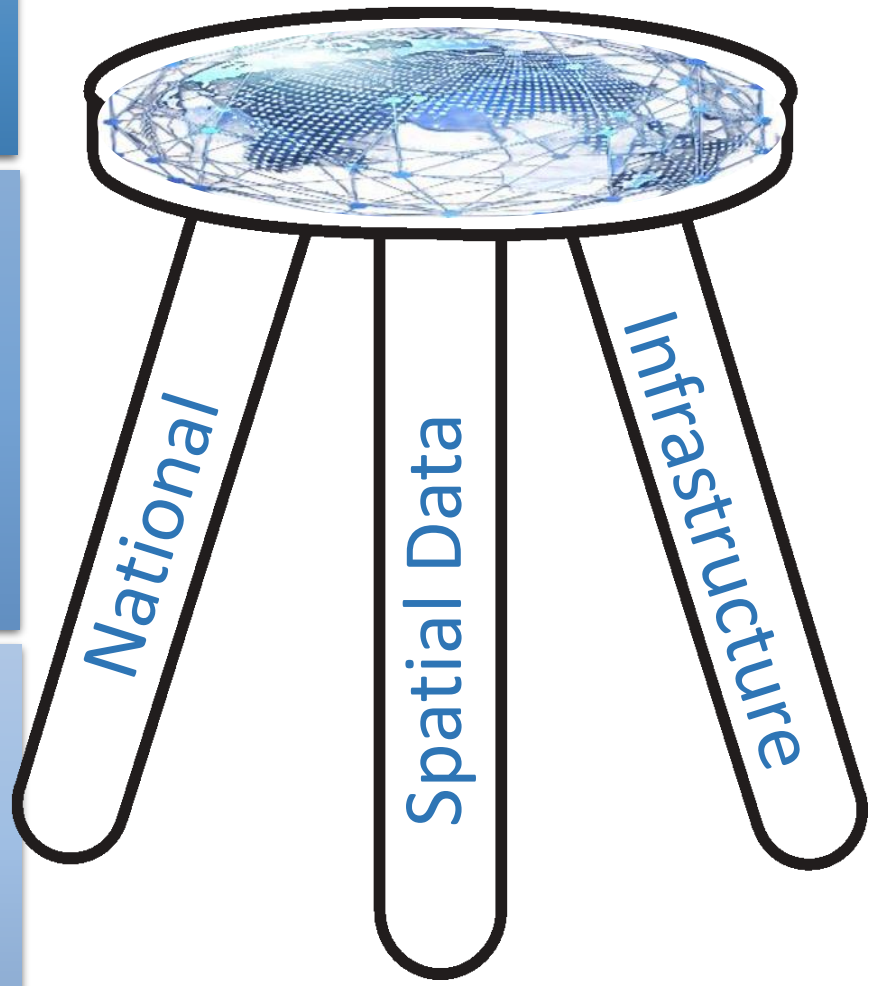
- Federal, state, local, and tribal governments,
- Academia and non-profits
- Private sector

Spatial Data

- Location-based: Places and things on Earth
- Physical and cultural world
- Enhance the understanding of our world
- Describes the arrangement and attribution
- Standards
- Easily integrated and available

Infrastructure

- Materials
- Technology
- Policy
- People
- Promote data sharing for all



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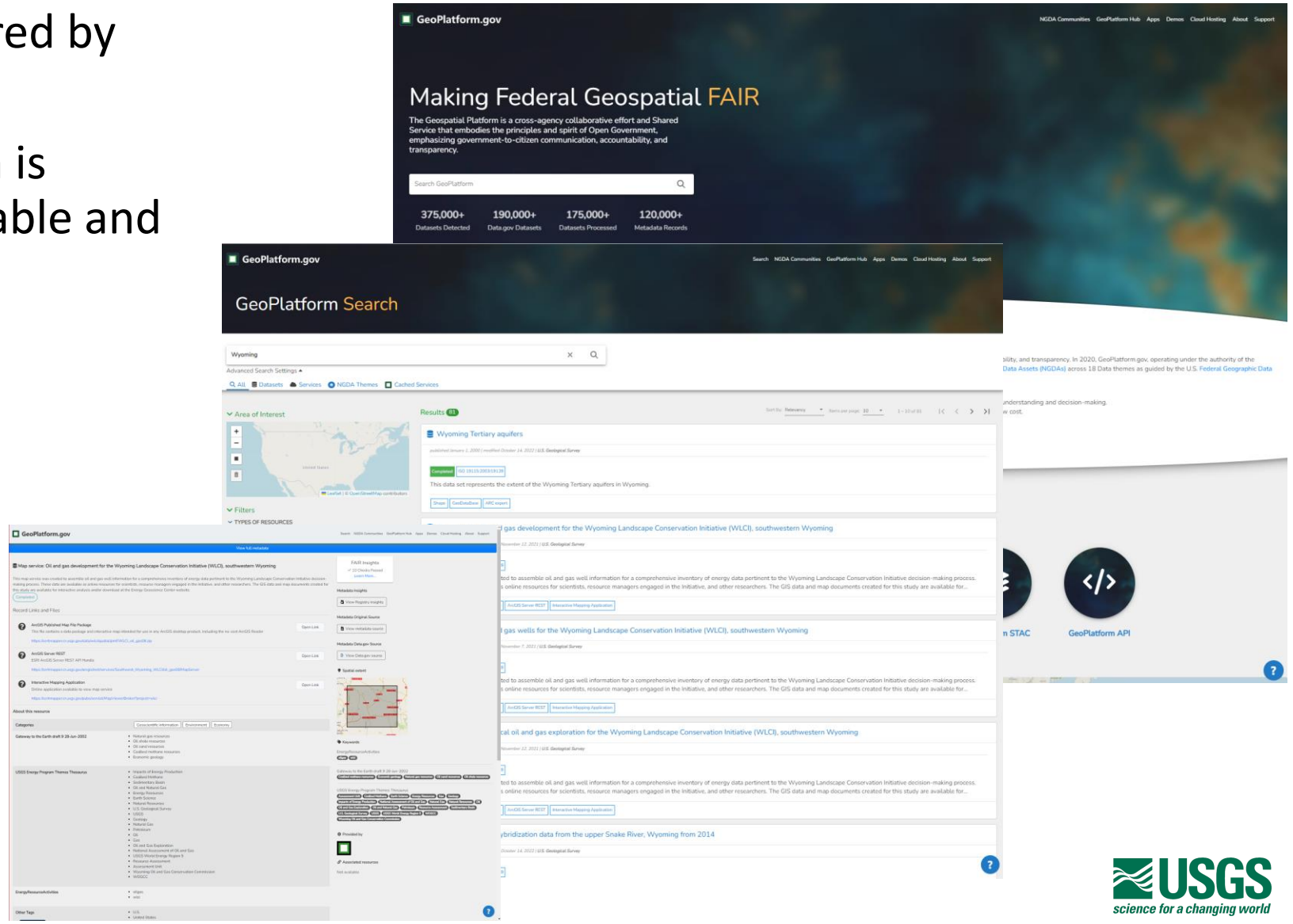
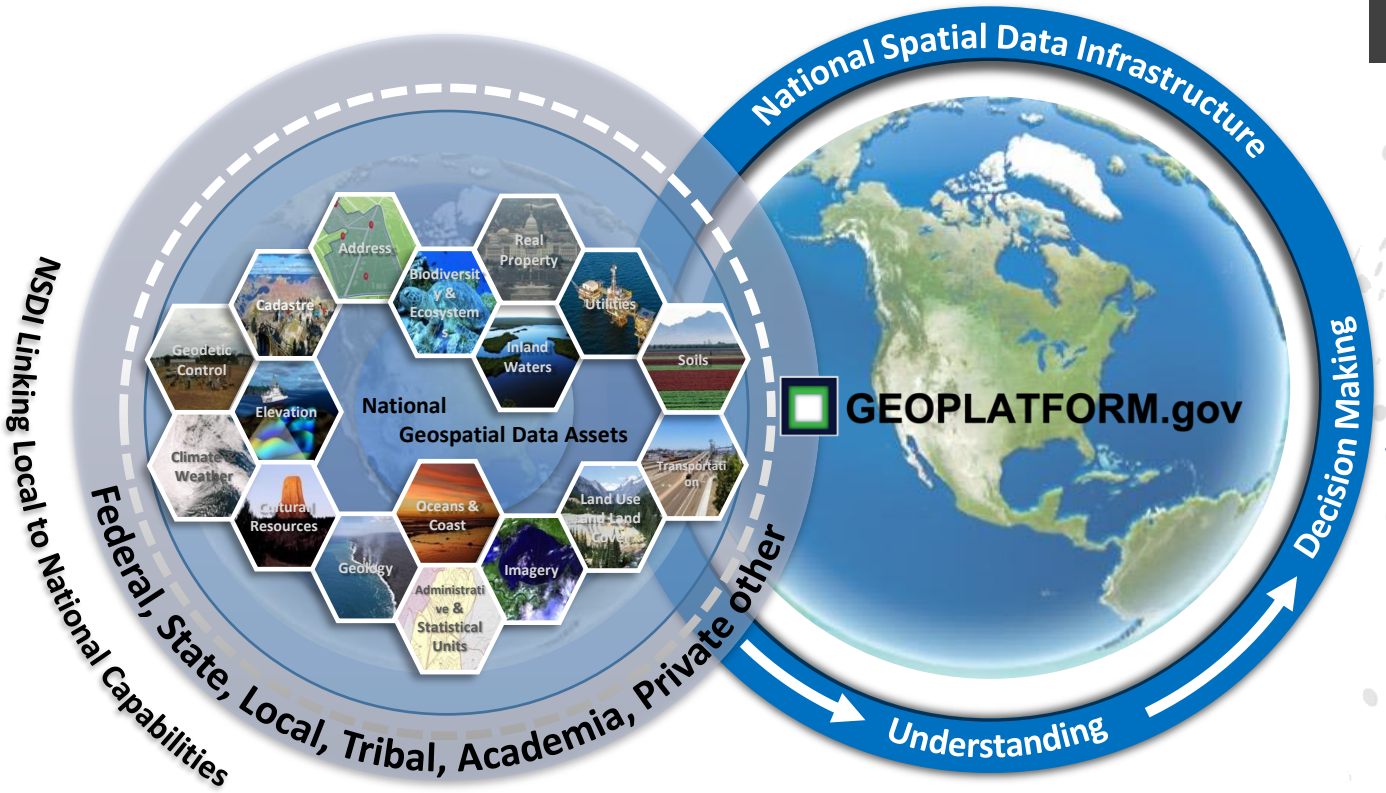
GeoPlatform.gov

- Open data and metadata required by GDA
- Ensures Federal geospatial data is Findable, Accessible, Interoperable and Reusable (FAIR)
- 120,000+ geospatial records
- 3,500+ GeoPlatform users



Enabling the NSDI with GeoPlatform

A Framework for Place-Based Understanding and Decision Making



Enabling Place-Based Understanding and Decision Making to Solve our Nations Toughest Challenges

GeoPlatform.gov connects stakeholders to information and infrastructure and provides applications and tools for understanding and decision-making.

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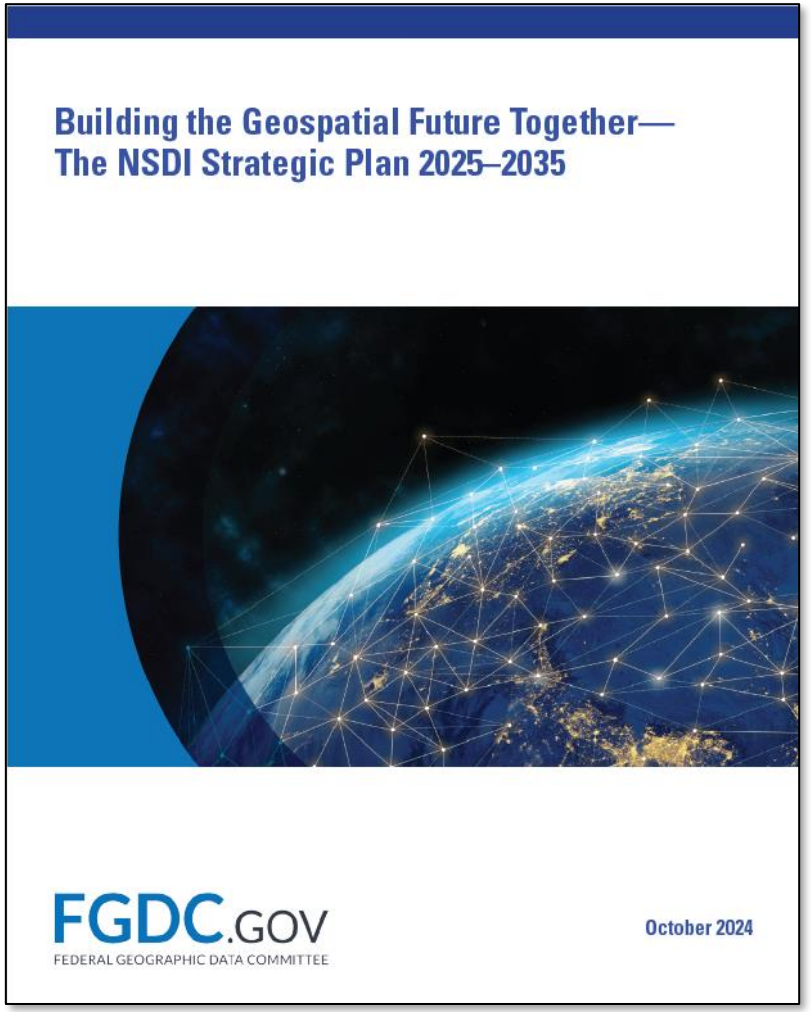
2035 NSDI Strategic Plan: Building the Geospatial Future Together

- Developed by NSDI Core Team
- Broad stakeholder engagement
  - 1,000+ individuals and organizations
  - National Geospatial Advisory Committee
  - Outreach in conferences, webinars, and public review
- Endorsed by NGAC on October 16, 2024
- Approved by the FGDC on October 18, 2024



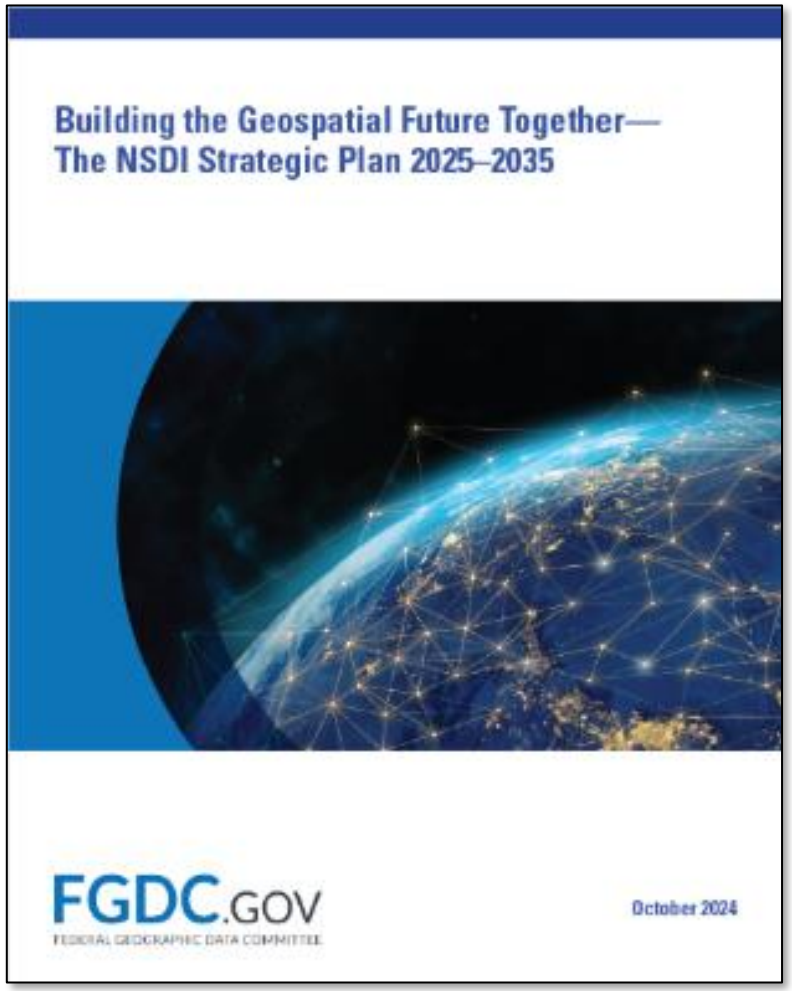
2035 NSDI Strategic Plan

Vision

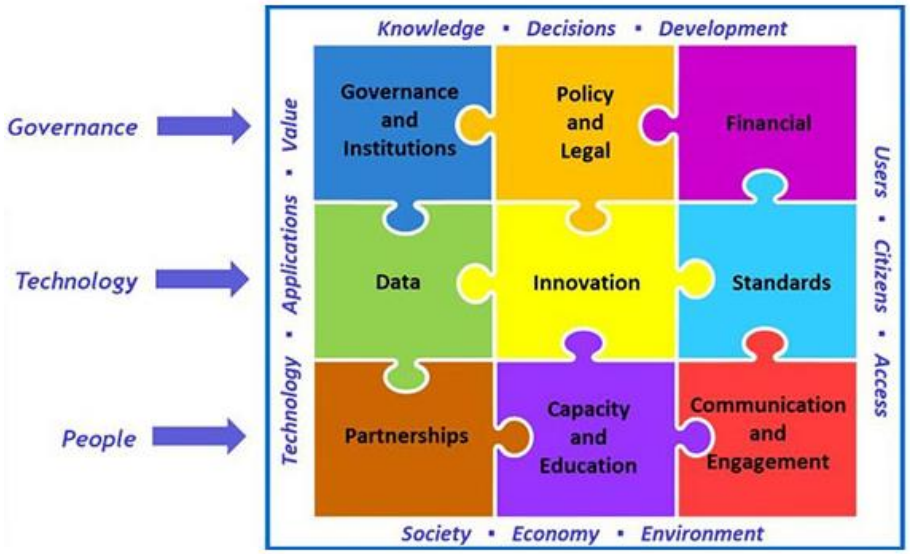
A seamlessly interconnected national geospatial ecosystem.

Mission

Deliver highly responsive, timely, dependable, and interoperable geospatial data, applications, and services that provide knowledge on demand and actionable insights to inform decisions; address local, regional, national, and global challenges; and benefit all people.



UN IGIF and US NSDI Strategic Plan



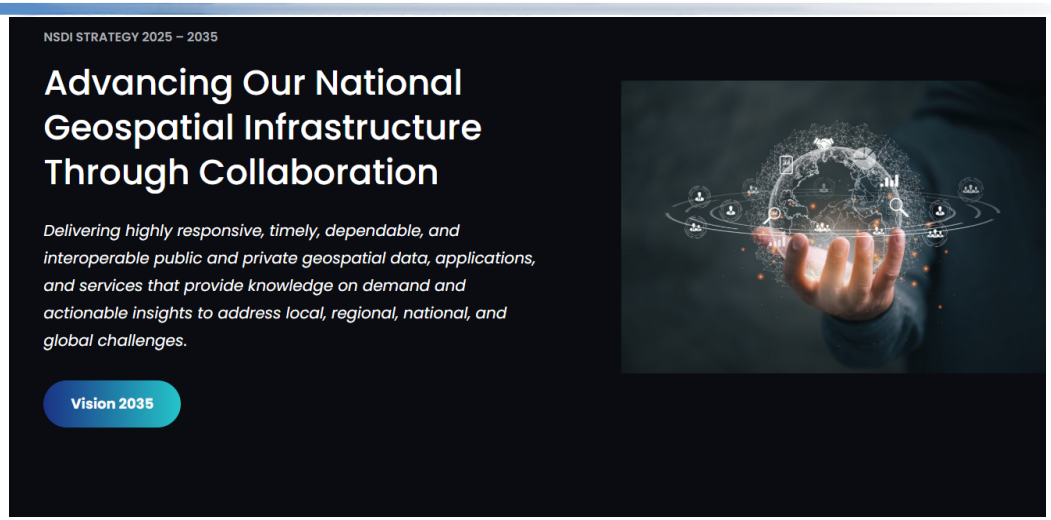
"At the centre of this transformation from the SDI to the GKI framework lies the United Nations' multidimensional Integrated Geospatial Information Framework, most known as the IGIF."

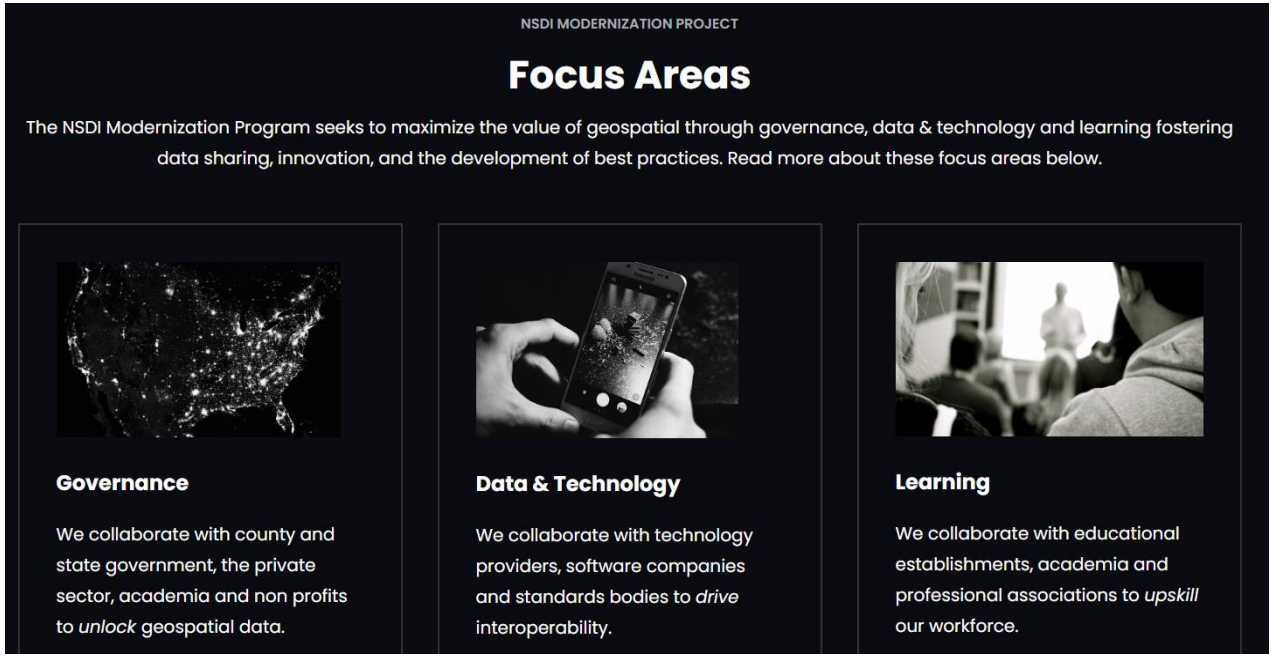
Source: UNGGIM Discussion Paper, DEVELOPMENT OF CONTEXTUAL UNDERSTANDING, INFORMATION, AND ANALYTICS TOWARDS DETERMINING THE NATIONAL GEOSPATIAL INFORMATION ECOSYSTEM, July 2022, p.5

Goals	Objectives		
Governance: Implement National Governance and Collaboration	**1.1 Governance and Institutions**	**1.2 Policy and Legal**	**1.3 Financial**
Data and Technology: Strengthen/Adapt the Infrastructure and Leverage Advanced Technology	**2.1 Data**	**2.2 Innovation**	**2.3 Standards** **2.4 Infrastructure**
People: Building a Skilled and Inclusive Geospatial Workforce for a Sustainable Future.	**3.1. Partnerships**	**3.2 Capacity and Education**	**3.3 Communication and Engagement**

Open Geospatial Consortium (OGC) SDI Modernization Project

- Project Goals:
  - Demonstrate the vision in the NSDI Strategic Plan
  - Showcase the latest spatial capabilities fostering data ecosystems
  - Advance the **capabilities** needed to achieve the 2035 NSDI vision:
    - Global Interoperability
    - AI-driven Action
    - Self-Updating Maps
    - Intelligent Search and Discovery
    - Immersive Visualization
    - Geospatial Knowledge and Insights
- OGC will be issuing a 'Call For Contributions'





Movement to action requires a plan

Next steps for Implementation

The world needs dreamers and the world needs doers. But above all, the world needs dreamers who do.

By Sarah Ban Breathnach

- Implementation Workshop
  - Test the template
  - Preferred/suggested format
- Draft guidance for the template
- Outreach to federal agencies
- Outreach to other sectors

Elements of the Template – Federal Example

DRAFT

PURPOSE: Advancing the technology, policies, criteria, standards, and employees necessary to promote geospatial data sharing throughout the Federal Government, State, Tribal, and local governments, and the private sector (including nonprofit organizations and institutions of higher education).

Goals	Objectives (Roles/Respsonsibilites assigned to organizations for each task)			
Governance: Implement National Governance and Collaboration	**1.1 Governance** ❑ Task 1.1.1 - Establish decision-making structure ❑ Task 1.1.2 - Establish process for tracking Implementation Plan tasks	**1.2 Policy and Legal** ❑ Task 1.2.1 - Refine GDA reporting ❑ Task 1.2.2 - Identify policies inhibiting NSDI implementation and define risks to NSDI	**1.3 Financial** ❑ Task 1.3.1 - Identify resourcing gaps ❑ Task 1.3.2 - Identify opportunities for efficiencies ❑ Task 1.3.2 - Determine ROI metrics for NGDA datasets	
Data and Technology: Strengthen/Adapt the Infrastructure and Leverage Advanced Technology	**2.1 Data** ❑ Task 2.1.1 - Improve data accuracy ❑ Task 2.1.2 - NGDA portfolio management ❑ Task 2.1.3 - Coordinate with local governments	**2.2 Innovation** ❑ Task 2.2.1 - Collaborate with industry ❑ Task 2.2.2 - Collaborate with academia ❑ Task 2.2.3 - Identify cost savings/efficiencies when investing in new technology	**2.3 Standards** ❑ Task 2.3.1 - Enable multi-use of data ❑ Task 2.3.2 - Collaborate with OGC/International standards community ❑ Task 2.3.3 - Formalize standards governance for federal data	**2.4 Infrastructure** ❑ Task 2.4.1 - Ensure data discoverability via Data.gov and Geoplatform.gov ❑ Task 2.4.2 - Employ tools for data management across the NSDI portfolio
People: Building a Skilled and Inclusive Geospatial Workforce for a Sustainable Future.	**3.1. Partnerships** ❑ Task 3.1.1 - Federal Partnerships ❑ Task 3.1.2 - Local and state partnerships ❑ Task 3.1.3 - Academia and private industry partnerships	**3.2 Capacity & Education** ❑ Task 3.2.1 - Implement cost effective learning opportunities with academia and industry ❑ Task 3.2.3 - Foster learning opportunities at middle/high schools ❑ Task 3.2.3 - Utilize Pathways internships	**3.3 Communication and Engagement** ❑ Task 3.3.1 - Promote map stories of NSDI successes ❑ Task 3.3.2 - Utilize advocacy organizations such as COGO	

Questions?

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