



**The Integrated Geospatial Information Framework provides a basis and guide for developing, integrating and strengthening geospatial information management.**



# **INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK**

**A STRATEGIC GUIDE TO DEVELOP AND STRENGTHEN NATIONAL GEOSPATIAL INFORMATION MANAGEMENT**

## **PART 1: OVERARCHING STRATEGIC FRAMEWORK**



**The Overarching Strategic Framework is a mechanism for articulating and demonstrating national leadership, cultivating champions, and developing the capacity to take positive steps.**

<http://ggim.un.org/UN-GGIM-Intergrated-geospatial-information-framework/>



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Integrated Geospatial  
Information Framework

## Overarching Strategic Framework

Why?

Part 1

National  
Implementation Guide

## Implementation Guide

What?

Part 2

National (or sub-national)  
Action Plans/Delivery System

## Country-level Action Plans

How, when, who?

Part 3

The **Integrated Geospatial Information Framework (IGIF)** comprises 3 separate, but connected, documents. The **Overarching Strategic Framework** was completed and adopted by UN-GGIM in August 2018. The structure and main elements of the **Implementation Guide** were provided for discussion, and had ‘in-principle’ approval by UN-GGIM. The **Country-level Action Plans** were acknowledged as ‘work in progress’ and to be developed through case studies.



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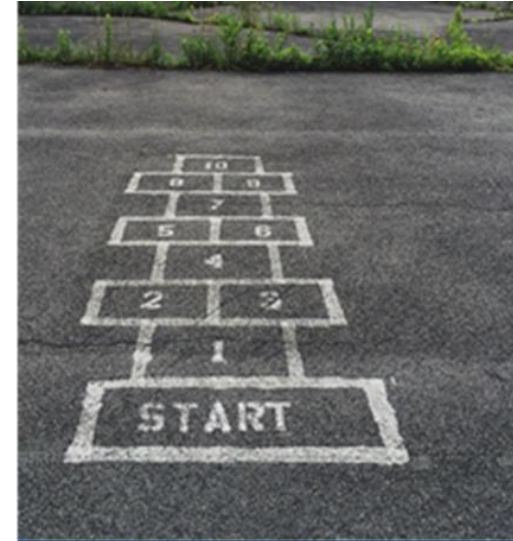
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# IGIF: Overarching Strategic Framework

- A forward-looking Framework built on national needs and circumstances.
- Provides the overarching strategic messages and integrated national framework, focusing on policy perspectives and elements of geospatial information.
- Sets the context of ‘why’ geospatial information management is a critical element of national social and economic development.
- **Vision** and **Mission** statements communicate the overarching aim of the Integrated Geospatial Information Framework.
- The Framework achieves this via **7 Underpinning Principles, 8 Goals and 9 Strategic Pathways** that lead to a national approach that takes account of national circumstances, priorities and perspectives.
- The **Overarching Strategic Framework** is intended for a wide range of stakeholders - these primarily being high-level policy and decision makers, institutions and organizations within and across government.



The Overarching Strategic Framework is a mechanism for articulating and demonstrating national leadership, cultivating champions, and developing the capacity to take positive steps.





# Overarching Strategic Framework: Vision and Mission

The **Vision** recognizes the responsibility for countries to plan for and provide better outcomes for future generations, and our collective aspiration to ‘leave no one behind’.

The **Mission** is designed to stimulate action towards bridging the geospatial digital divide; to find sustainable solutions for social, economic and environmental development; and to influence inclusive and transformative societal change for all citizens according to national priorities and circumstances.

## Vision

The efficient use of geospatial information by all countries to effectively measure, monitor and achieve sustainable social, economic and environmental development - leaving no one behind.

## Mission

To promote and support innovation and provide the leadership, coordination and standards necessary to deliver integrated geospatial information that can be leveraged to find sustainable solutions for social economic and environmental development.



# Overarching Strategic Framework: Principles

## Underpinning Principles:

**PRINCIPLE 1: Strategic Enablement**

**PRINCIPLE 2: Transparent and Accountable**

**PRINCIPLE 3: Reliable, Accessible and Easily Used**

**PRINCIPLE 4: Collaboration and Cooperation**

**PRINCIPLE 5: Integrative Solution**

**PRINCIPLE 6: Sustainable and Valued**

**PRINCIPLE 7: Leadership and Commitment**



The 7 Principles are the key characteristics and values that provide the compass for implementing the Framework, and allow for methods to be tailored to individual country needs and circumstances.



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# Overarching Strategic Framework: Goals

- GOAL 1: Effective Geospatial Information Management**
- GOAL 2: Increased Capacity, Capability, and Knowledge Transfer**
- GOAL 3: Integrated Geospatial Information Systems and Services**
- GOAL 4: Economic Return on Investment**
- GOAL 5: Sustainable Education and Training Programs**
- GOAL 6: International Cooperation and Partnerships Leveraged**
- GOAL 7: Enhanced National Engagement and Communication**
- GOAL 8: Enriched Societal Value and Benefits**



The 8 Goals reflect a future state where countries have the capacity and skills to organize, manage, curate and leverage geospatial information to advance government policy and decision-making capabilities.



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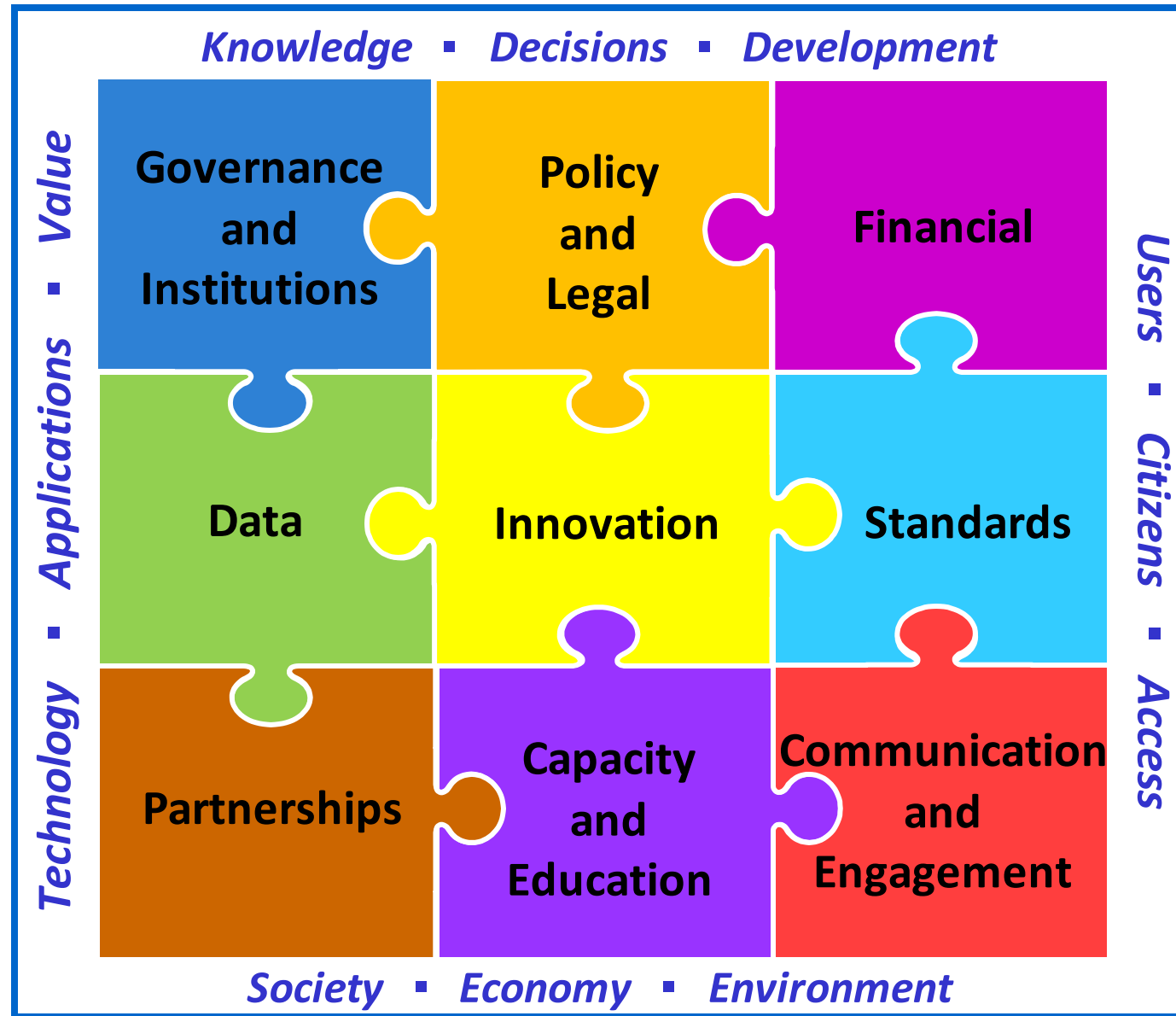
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# 9 Strategic Pathways

*Governance* →

*Technology* →

*People* →



Anchored by 9 Strategic Pathways, the Framework is a mechanism for articulating and demonstrating national leadership in geospatial information, and the capacity to take positive steps.





# INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK

## DEVELOPING THE IMPLEMENTATION GUIDE

### JANUARY - SEPTEMBER 2019



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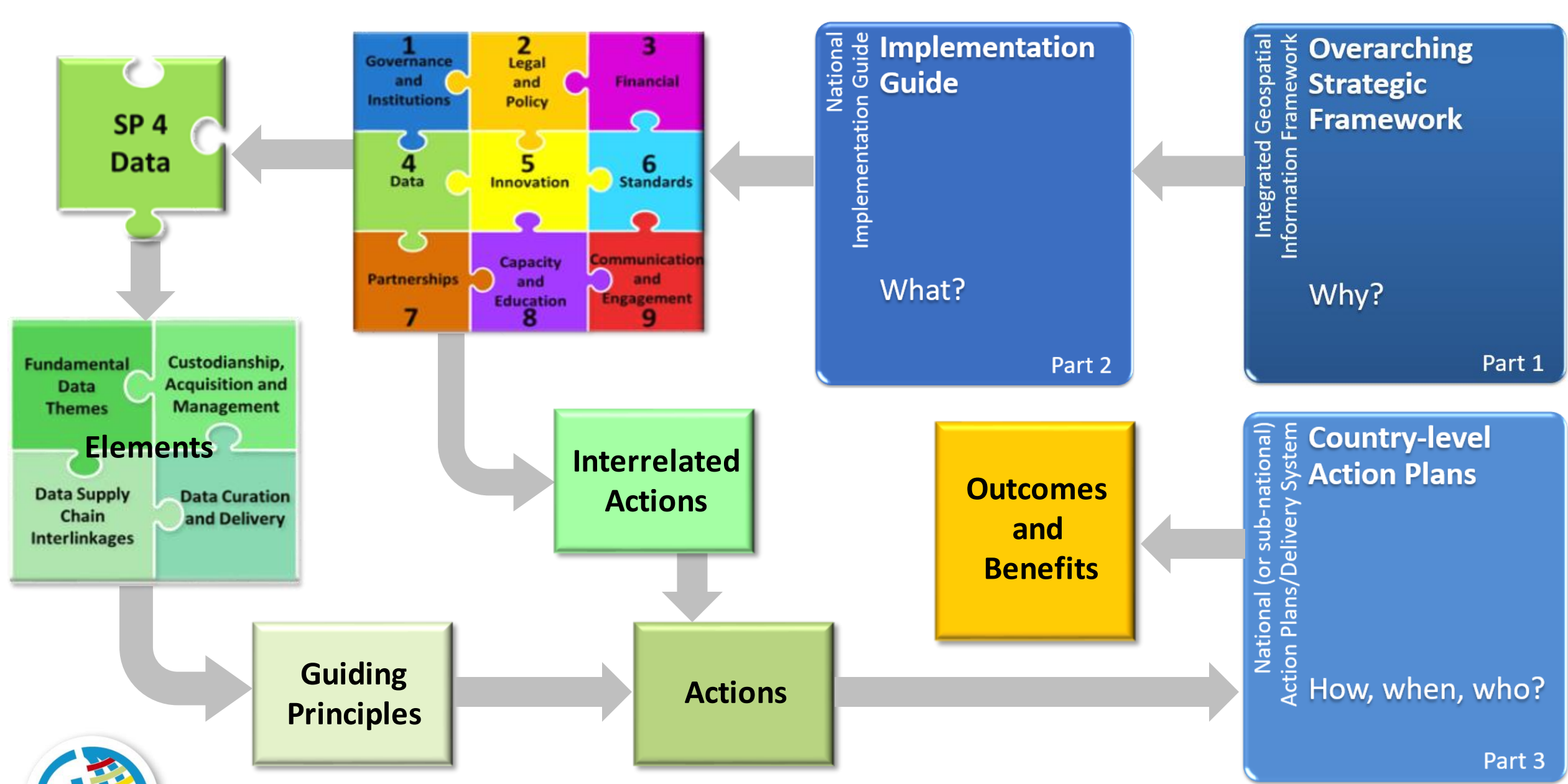
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# IGIF: Implementation Guide - Foundations

- The Implementation Guide provides the ‘what’, the specific guidance and options to be taken by countries in implementing the IGIF. It captures strategic to operational needs with guiding principles; while not being detailed and prescriptive – Country-level Action Plans do that.
- Expanding on each of the 9 Strategic Pathways, the Guide comprises references, good practices and specific principles and actions for each of the Pathways, including those generated through each of the Subcommittee, Expert and Working Groups of UN-GGIM.
- The aim is to provide guidance for governments to establish ‘nationally’ integrated geospatial information frameworks in countries in such a way that transformational change is enabled, visible and sustainable. The Guide’s benefits will cascade right down to the citizen.
- While intended to benefit low to middle income countries and small island developing States, the Guide can be used to establish and/or improve national geospatial information management arrangements. The Guide can also be used to coordinate activities to achieve alignment between already existing national agency capabilities and infrastructures.





# IGIF: Implementation Guide



1. Abstract
2. Summary
3. Introduction
4. Context and Rationale
5. Approach
6. **Elements**
7. **Guiding Principles**
8. **Actions**
9. Deliverables
10. **Outcomes**
11. Resources

“Tools” and “Interrelated Actions” are identified throughout the Chapter

Elements of Governance and Institutions	Governance Model	Leadership	Value Proposition	Institutional Arrangements
<b>Guiding Principles</b>	Facilitate Strategic Outlook Credibility Participatory	Open and Transparent Accountability Guidance Clarity		Project Management Oversight Communication and Evaluation Legal Interoperability
<b>Key Actions for Strengthening Geospatial Information Management</b>	<b>Forming the Leadership</b> Governing Board Geospatial Coordination Unit(s) Specialist Working Groups	<b>Setting Direction</b> Strategic Alignment Study Geospatial Information Management Strategy		<b>Tracking Success</b> Monitoring and Evaluation Success Indicators
	<b>Establishing Accountability</b> Governance Model	<b>Creating a Plan of Action</b> Change Strategy Country-level Action Plan		<b>Deriving Value</b> Geospatial Economic Value Assessment
<b>Tools to Assist in Completing the Actions</b>	Steering Committee Charter Example Strategic Alignment Template	Guidance for Vision, Mission and Goal Statements Country-level Action Plan Template		Monitoring and Evaluation Template Success Indicators Example
<b>Interrelated and/or Prerequisite Actions</b>	Policy Framework (SP2) ICT Capacity Review (SP5) ICT Needs Assessment and Gap Analysis (SP5)	ICT Needs Assessment and Gap Analysis (SP5) Stakeholder Engagement Strategy (SP9)		Legal and Policy Review (SP2) Data Inventory and Gap Analysis (S4)
<b>Outcomes</b>	Strengthened Leadership, Institutional Mandates and Political Buy-in	Efficient Planning and Coordination Geospatial Information is Valued		Cooperative Data Sharing



# Outcomes

- Efficient planning and coordination of the governments geospatial information resources
- Strengthened leadership, institutional mandates and political buy-in
- A cooperative data sharing environment
- A shared understanding of the value of integrated geospatial information management

# Elements

- Governance Model
- Leadership
- Value Proposition
- Institutional Arrangements

# Principles

- Facilitate
- Strategic Outlook
- Credibility
- Participatory
- Open and Transparent
- Accountability
- Guidance
- Clarity
- Project Management
- Oversight
- Communication and Evaluation
- Legal Interoperability

# Actions

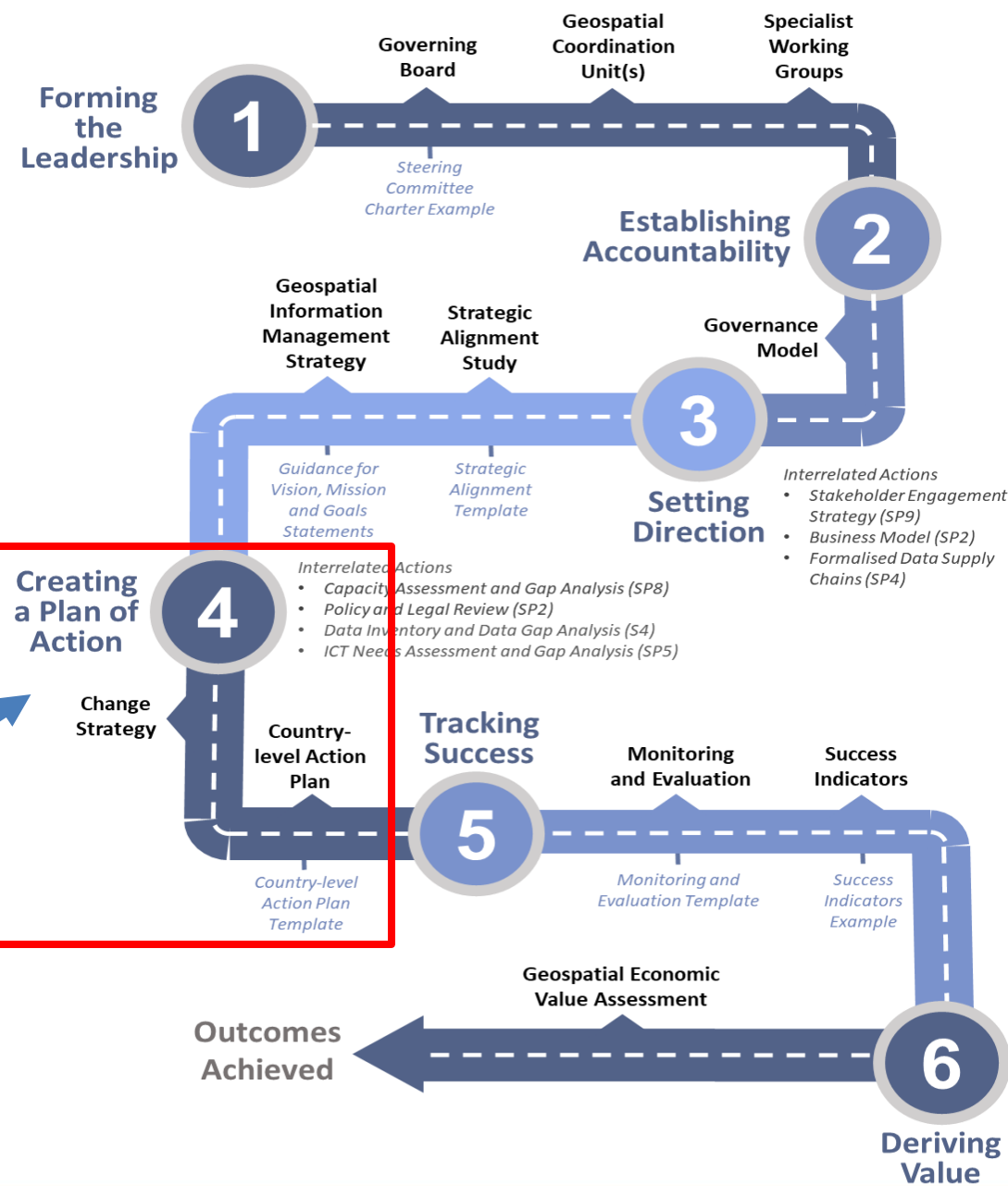
- Forming the Leadership**
  - Governing Board
  - Geospatial Coordination Unit(s)
  - Specialist Working Groups
- Establishing Accountability**
  - Governance Model
- Setting Direction**
  - Strategic Alignment Study
  - Geospatial Information Management Strategy
- Creating a Plan of Action**
  - Change Strategy
  - Country-level Action Plan
- Tracking Success**
  - Monitoring and Evaluation
  - Success Indicators
- Deriving Value**
  - Geospatial Economic Value Assessment

# Tools

- Steering Committee Charter Example
- Strategic Alignment Template
- Guidance for Vision, Mission and Goal Statements
- Country-level Action Plan Template
- Monitoring and Evaluation Template
- Success Indicators Example

# Interrelated Actions

- Policy and Legal Review (SP2)
- Data Inventory (SP4)
- Data Gap Analysis (S4)
- Policy Framework (SP2)
- ICT Capacity Review (SP5)
- ICT Needs Assessment and Gap Analysis (SP5)
- Stakeholder Engagement Strategy (SP9)
- Capacity Assessment and Gap Analysis (SP8)
- Business Model (SP2)
- Data Acquisition Program (SP4)
- Formalised Data Supply Chains (SP4)







# INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK

## DEVELOPING THE COUNTRY-LEVEL ACTION PLANS

### JANUARY - SEPTEMBER 2019



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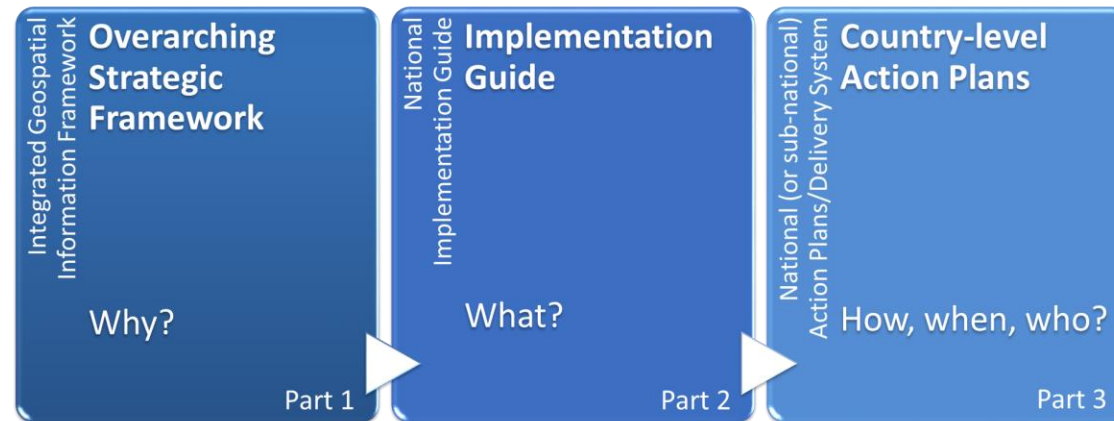
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# IGIF: Country-level Action Plans (CAPs)

- Part 3: Country-level Action Plans (CAPs) reference the specific guidance, options and actions provided in the Implementation Guide and addresses each of the 9 Strategic Pathways to capture strategic-to-operational needs of a country when implementing the Framework.
- CAPs are now being developed in parallel, and in coordination with, the Implementation Guide. They are being implemented in several ways.



Part 1: Overarching Strategic Framework – **WHY** geospatial information management needs to be strengthened.

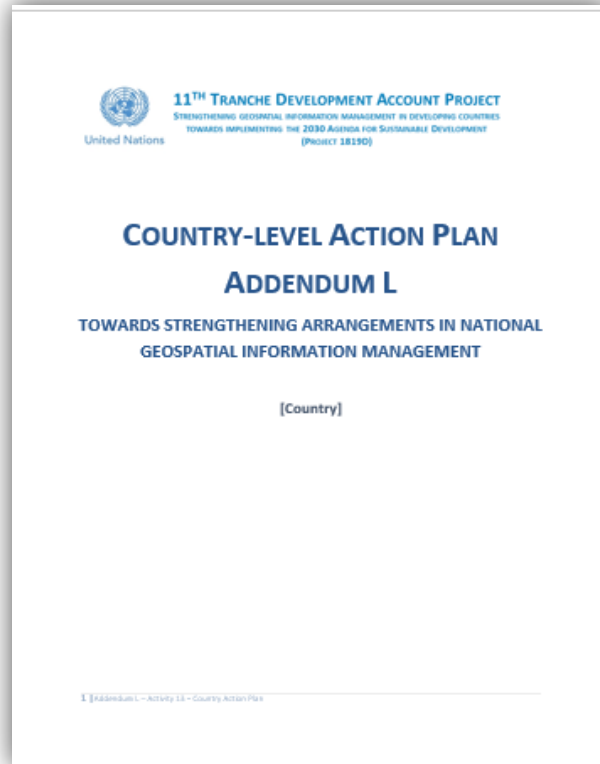
Part 2: Implementation Guide – **WHAT** types of actions can be undertaken to strengthen geospatial information management.

Part 3: Country-level Action Plans – **HOW** the actions will be carried out, **WHEN** and by **WHOM**.

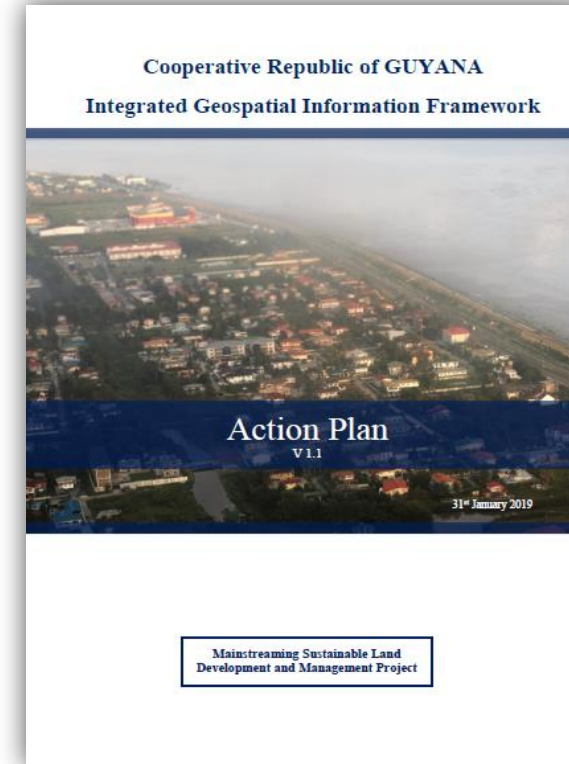


# IGIF: Country-level Action Plans - Approaches

United Nations and the World Bank are actively engaged in assisting countries to develop  
Country-level Action Plans



Development Account Project  
UNSD  
(self-paced learning and execution)



Technical Assistance Programs  
World Bank and FAO  
(assisted execution)



# IGIF: Country-level Action Plans (CAPs)

- Countries prepare and implement the IGIF with their own CAPs. The CAP is the process of building an IGIF for a nation, beginning with specific plans that align with a nation's priorities and circumstances.
- A CAP references the specific guidance, options and actions provided in the Implementation Guide and addresses each of the Strategic Pathways, while taking into account the strategic and operational needs of a country when implementing the Framework.
- The CAP is a plan, not a programme that is implemented. The CAPs contain the processes, templates and tools that are available and necessary to first develop a national action plan, and then operationalize the IGIF through its subsequent implementation, and aligned with national priorities.
- The CAPs will include elements such as the economic impact and value of geospatial information systems, identification of investment needs and priorities, sequenced implementation through the identification of short, medium and long-term activities, and potential funding sources.





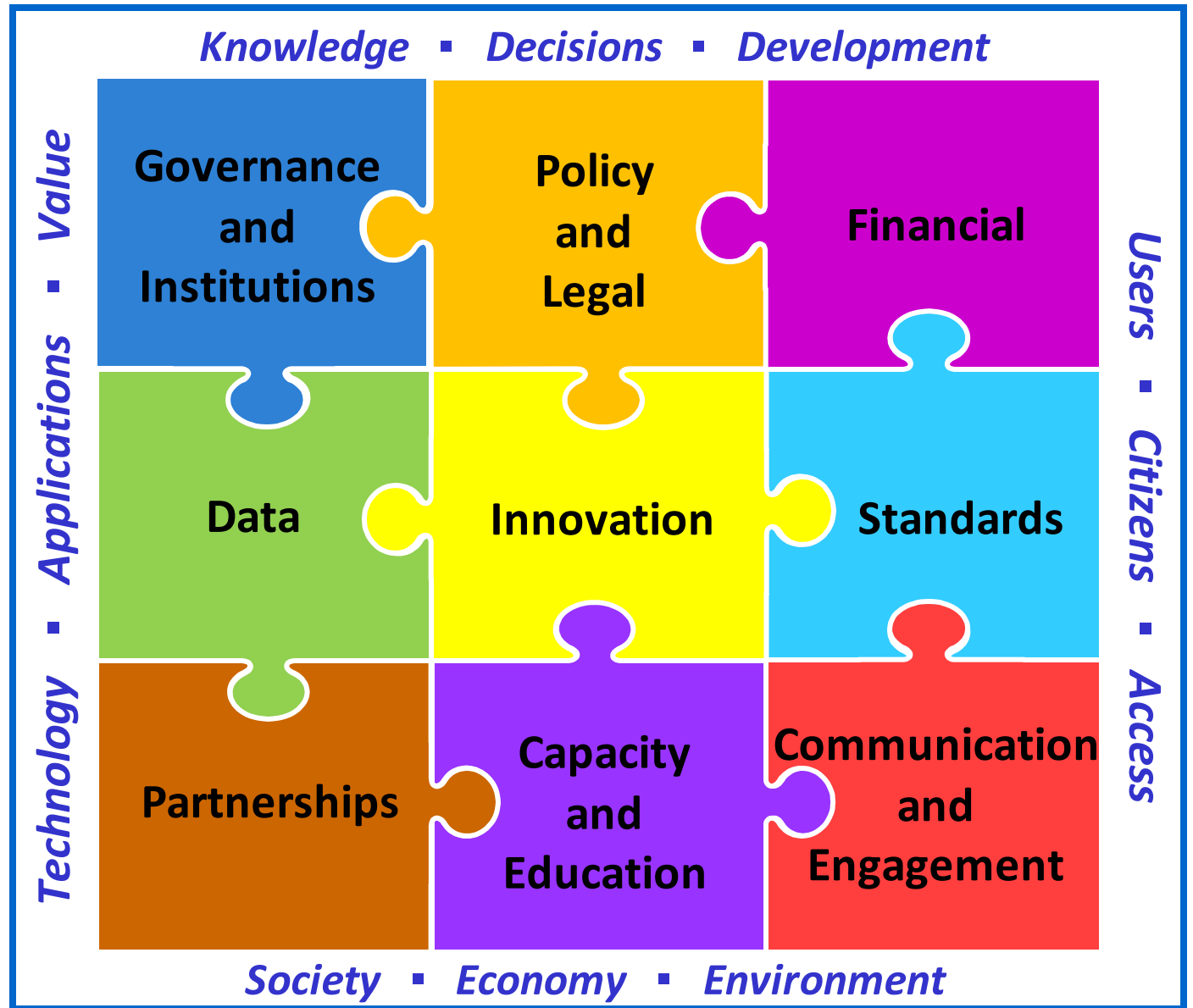
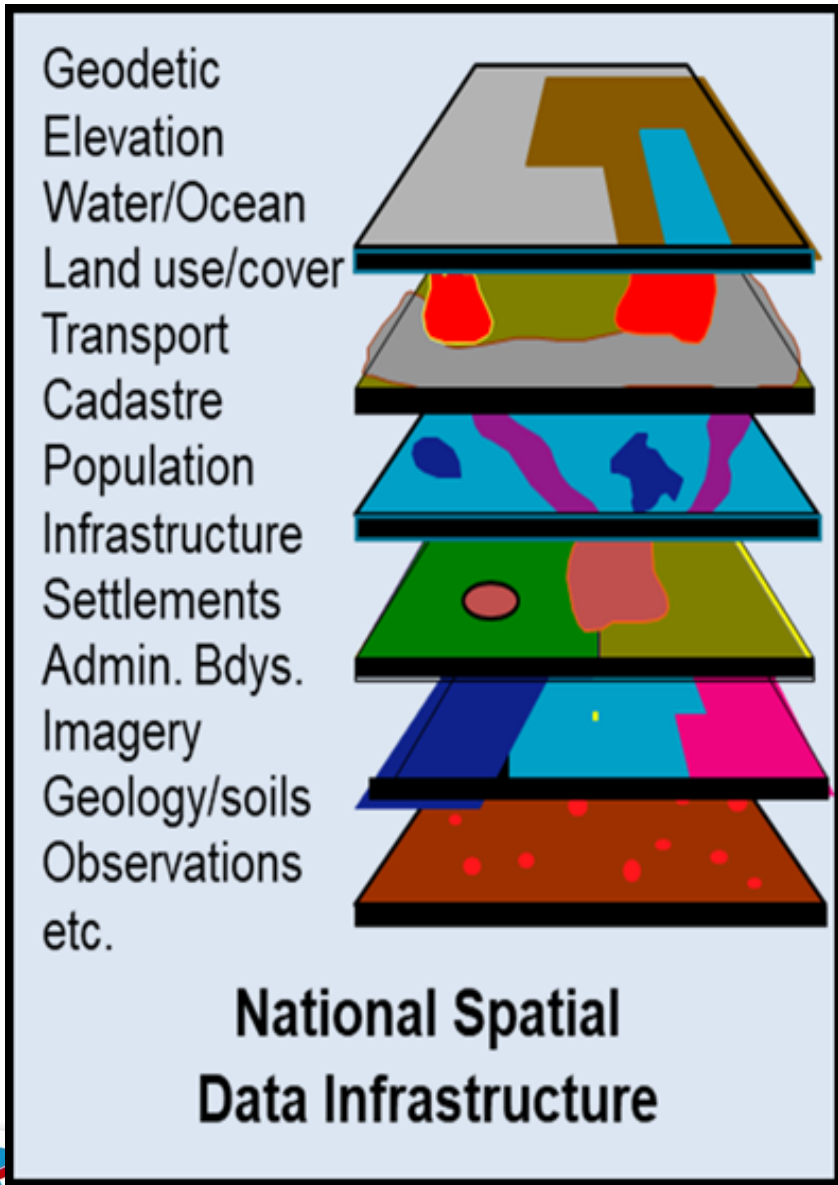
# Summary



Strengthening geospatial information management will assist countries in bridging the geospatial digital divide, secure socio-economic prosperity, and leave no one behind.

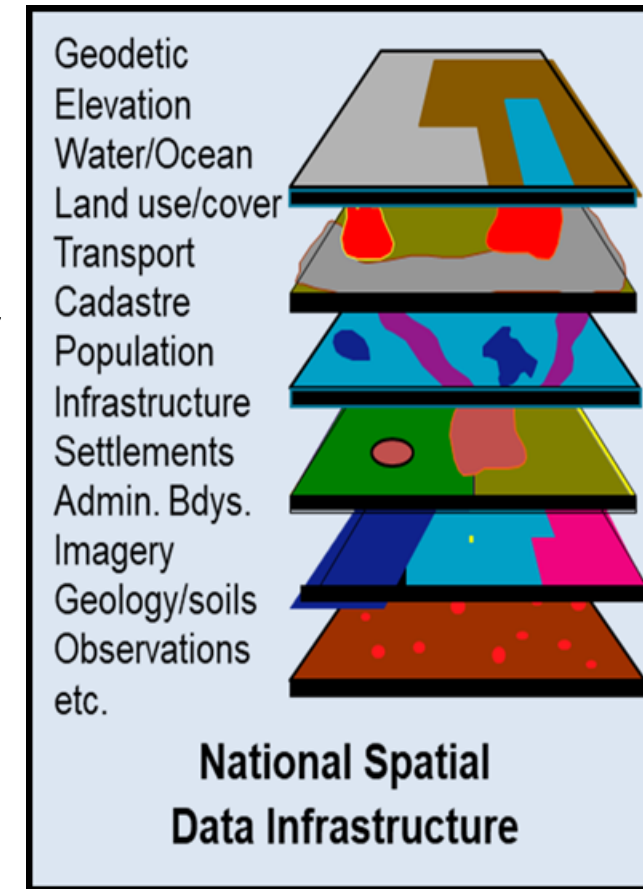
The **Integrated Geospatial Information Framework** is a reference guide for developing and strengthening arrangements in national geospatial information management. It has been designed specifically for low to middle income countries and small island developing States. But, it is also being used to improve and coordinate activities to achieve alignment between and across existing national agency capabilities and infrastructures in developed countries.





# IGIF: Linkages to the NSDI

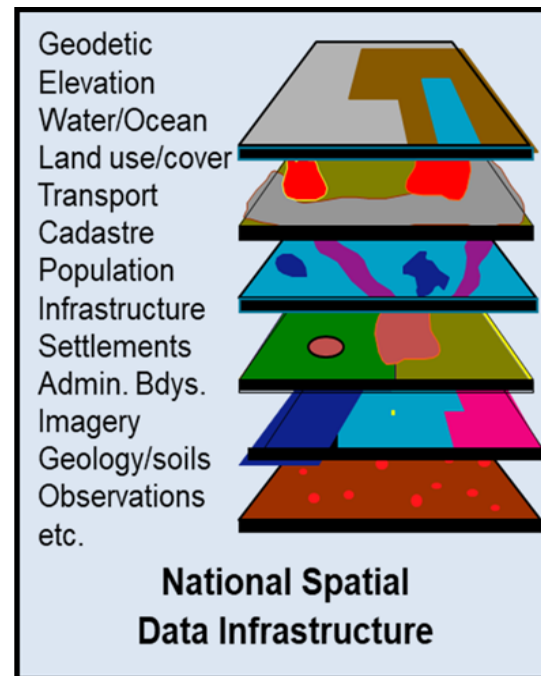
- Virtues of NSDIs are their ability to promote geospatial data sharing throughout all levels of government and society, enabling effective use of geospatial data for sustainable national development and other every day requirements.
- Two factors challenge the limitations of a traditional NSDI:
  1. The growing availability of more data and more data types. Big data, structured and unstructured data, and the potential value of other 'external' data pressure existing NSDI structures. Further, some data are geospatially referenced, others are not.
  2. The need for data integration and analysis. Traditional NSDIs are very structured (silo) repositories of valuable geospatial information, with defined and managed (separate) data sets and themes. Today, these data assets must meet diverse and specific local and national requirements, and need to be 'integrated' with other data and sectors.





# IGIF: Linkages to the NSDI

- The principal focus of NSDIs is geospatial data. What is needed to establish or maintain an integrated national geospatial program is not sufficiently addressed by the NSDI.
- While an NSDI is a core and valuable component, a national geospatial program is much more than the data. The IGIF defines each of the interconnected 9 Strategic Pathways required for an integrated national geospatial program.
- Building on the existing benefits and practices of NSDIs, the IGIF is more comprehensive than the traditional efforts of NSDIs.
- What is the driver for why we have the IGIF rather than the NSDI? More diverse data types and needs that are now more relevant and dependent on geospatial data than were originally considered. This is a reflection of both technology evolution and the new and emerging data ecosystem that is more dependent on a systems approach to ‘location’ and ‘integration’.



**The Framework will augment and build upon existing NSDI arrangements, providing a holistic, integrated national information system-of-systems approach to the data life cycle**



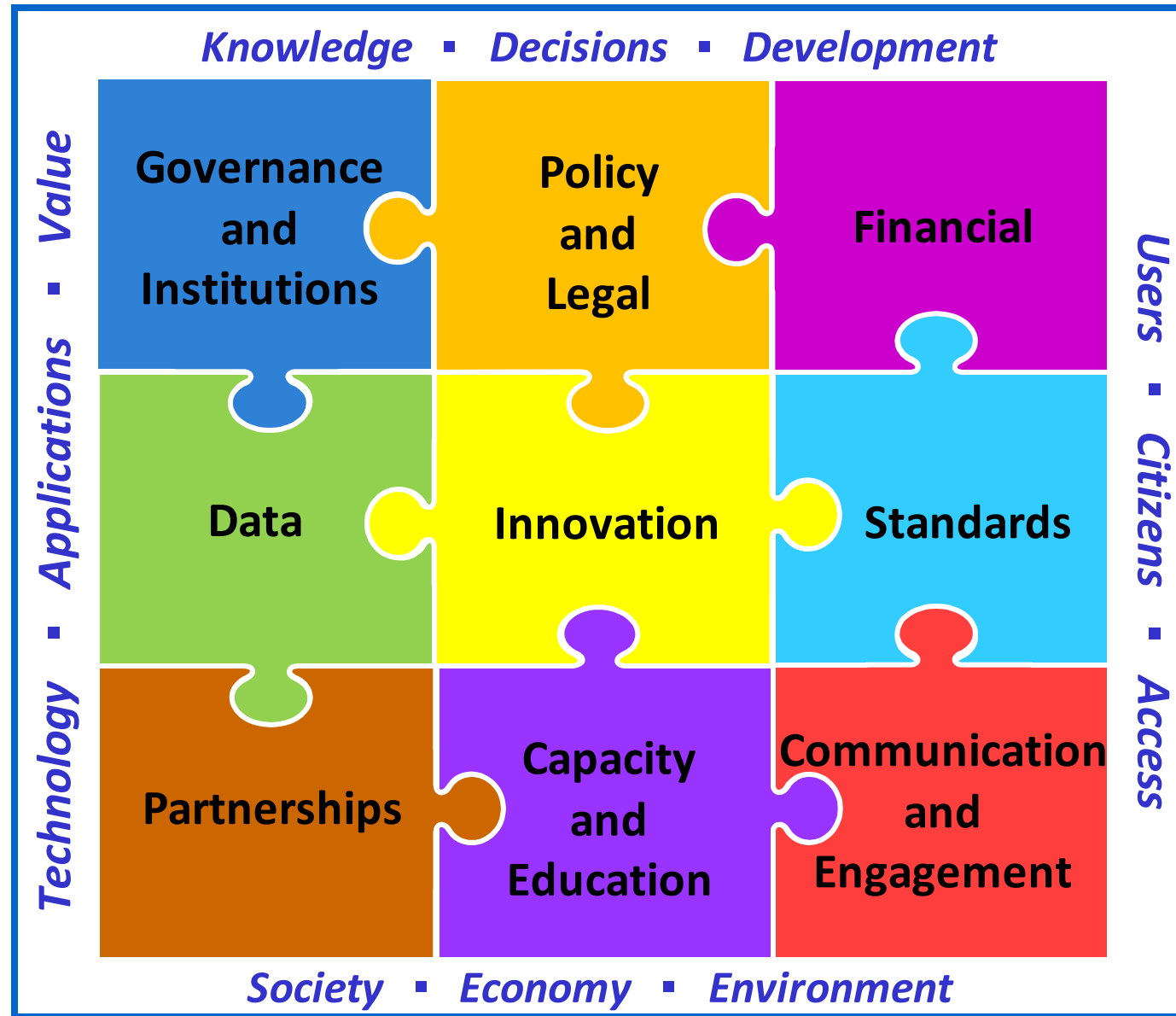


# 9 Strategic Pathways

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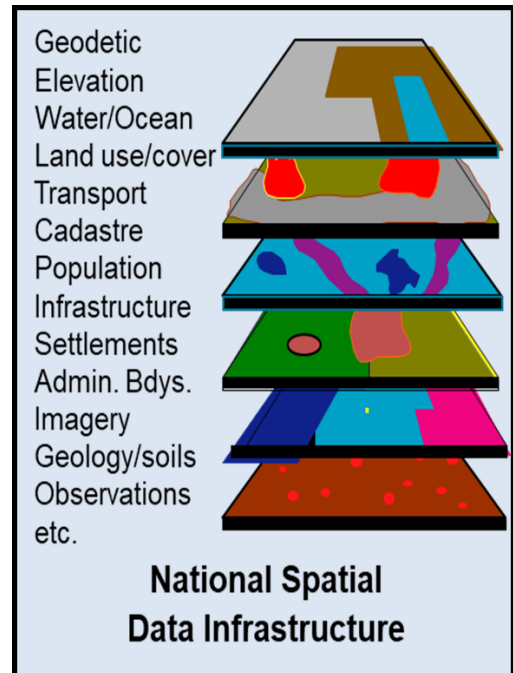
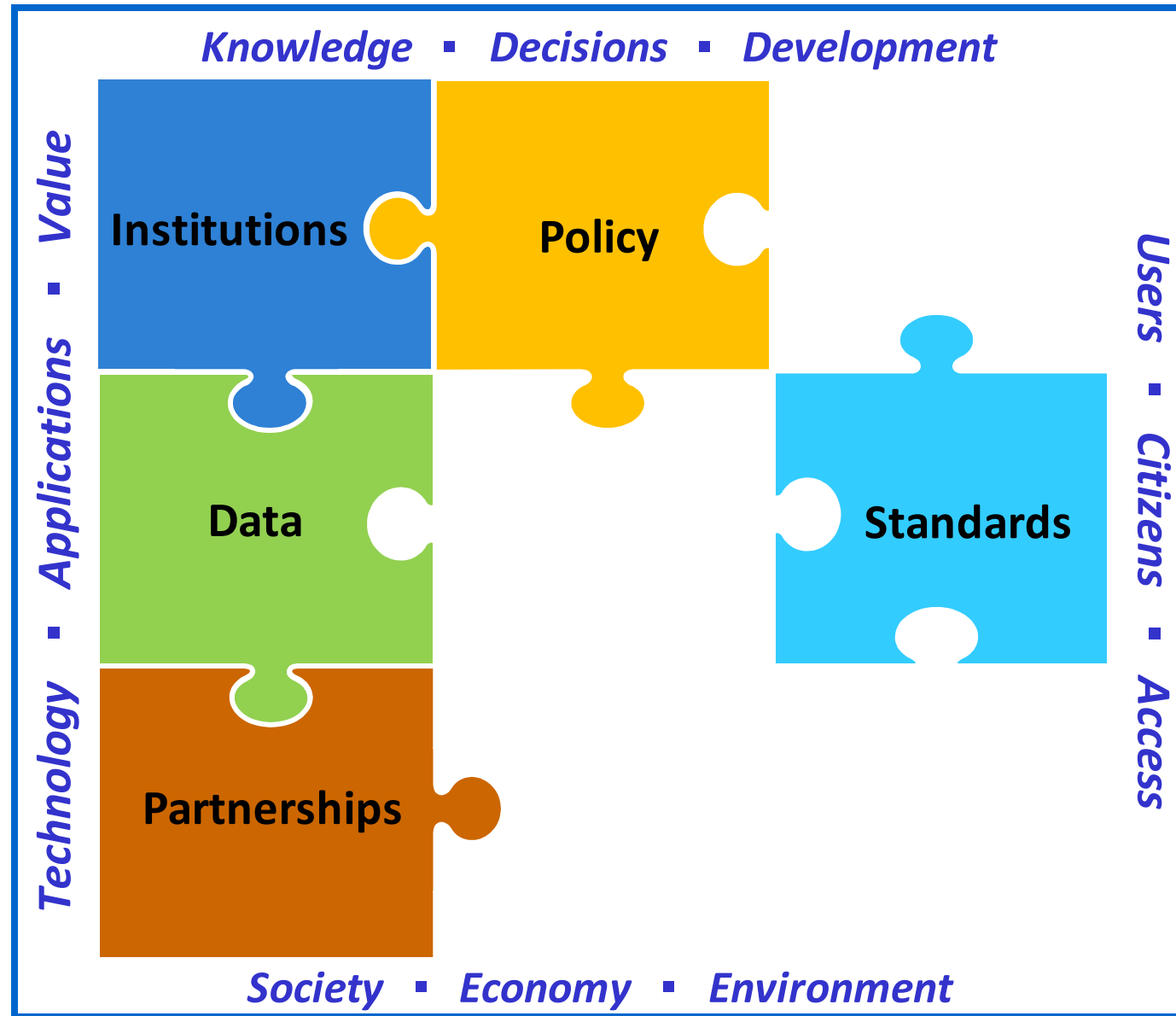


# 9 Strategic Pathways

Governance →

Technology →

People →



“The technology, policies, standards, human resources and related activities to acquire, process, distribute, use, maintain and preserve spatial data” (OMB 2002).

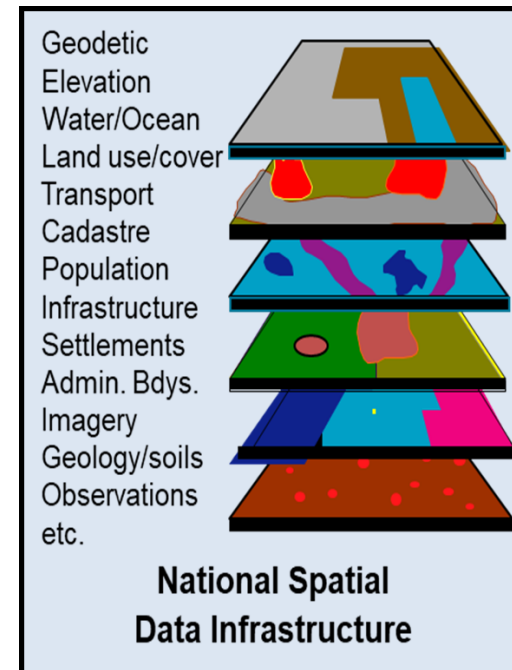
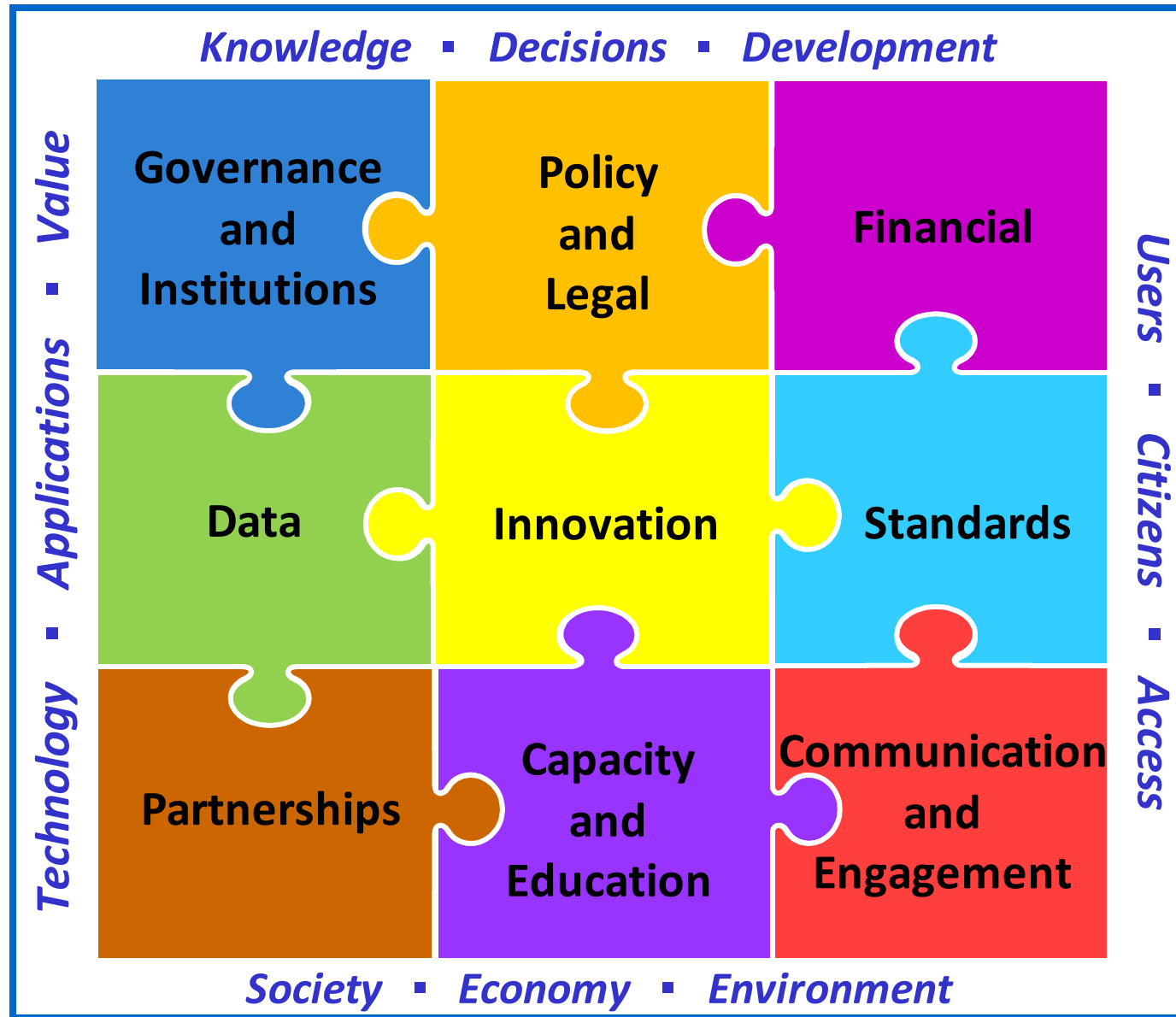


# 9 Strategic Pathways

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**The Framework will augment and build upon existing NSDI arrangements, providing a holistic, integrated national information system-of-systems approach to the data life cycle**



# The GSGF - from a global framework to implementation

