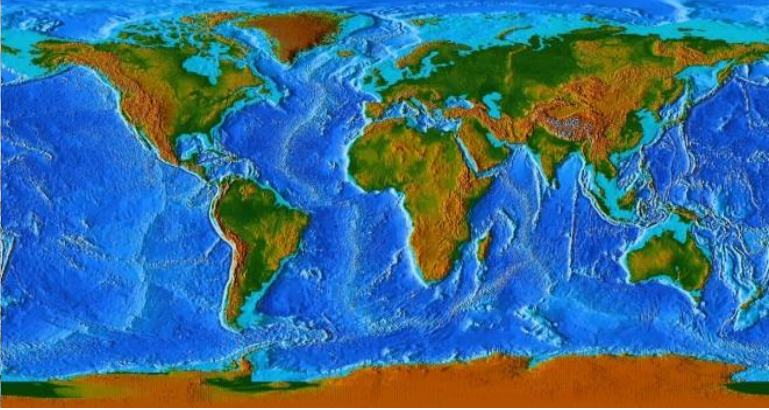


Transforming our world -
The 2030 Agenda for
Sustainable Development



**Deqing International Seminar on UN-GGIM
“Effective Land Administration”
27-28 September 2018, Deqing, China**

The Integrated Geospatial Information Framework

Greg Scott, UN-GGIM Secretariat

Environmental Statistics and Geospatial Information Branch
United Nations Statistics Division
Department of Economic and Social Affairs
United Nations, New York



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“Everything happens somewhere...”

Nancy Tosta, June 2001



Everything that happens...happens somewhere.

We can locate, view, relate, record, collect, measure, analyze, model and monitor what happens where, when, why, and how.

We can do this more today than ever before....which is far less than what we will do tomorrow.



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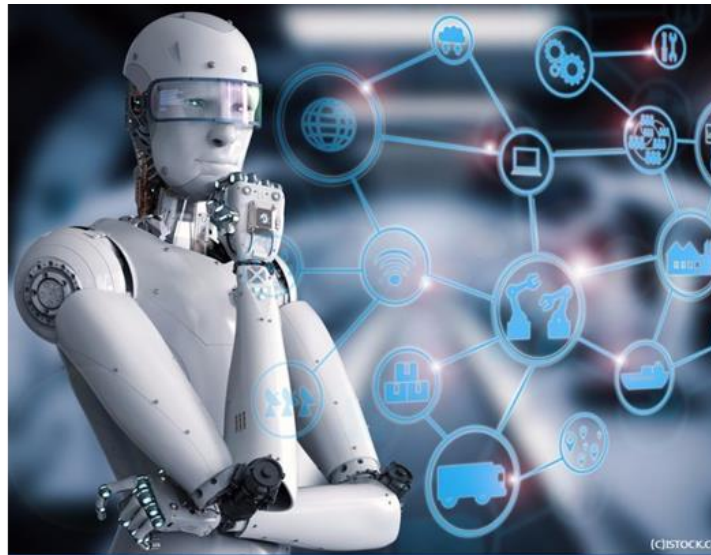
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Geospatial information represents much more than the 'digital map' of a nation; it is the 'digital currency' for evidence-based decision-making. Geospatial information is a critical component of the national infrastructure; both a blueprint of what happens where, and the means to integrate a wide variety of data across multiple sectors.

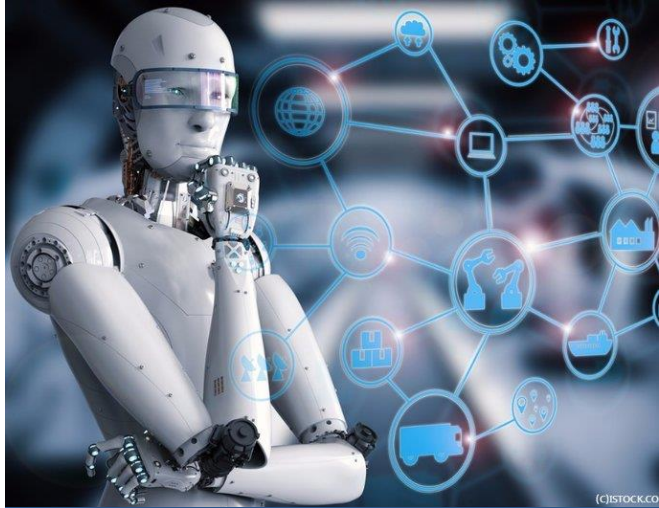
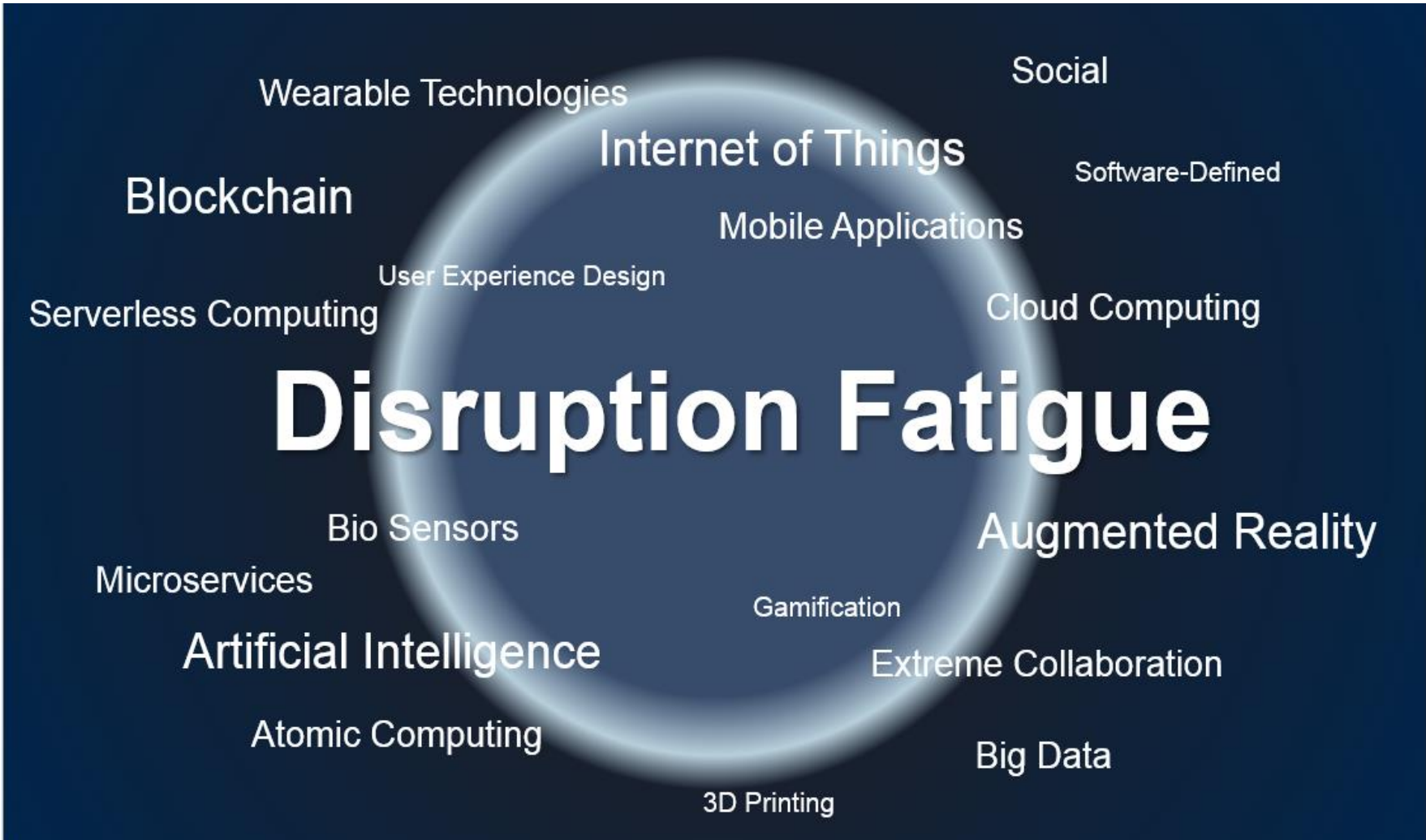


The disruptive nature of digital transformation, technology, innovation, and their exponential impacts, means that society's expectations on how, and at what level of detail, we record what is happening where and when are changing at a rapid pace.



While 'data' is still the primary information currency, the many disruptive technology enablers and applications are challenging the norm for the mission of national geospatial information authorities.





The disruptive nature of digital transformation, technology, innovation, and their exponential impacts, means that society's expectations on how, and at what level of detail, we record what is happening where and when are changing at a rapid pace.



The disruptive nature of digital transformation



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The disruptive nature of digital transformation



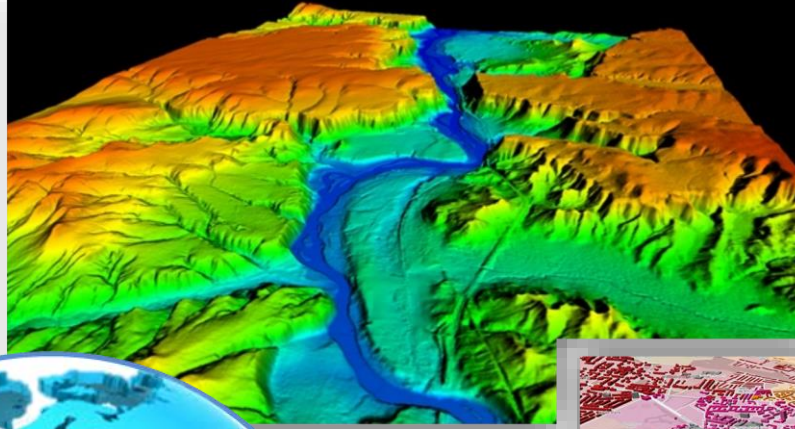
“Within the past generation, hundreds of millions of people have emerged from extreme poverty, and access to education has greatly increased for both boys and girls. Further, the spread of information and communications technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide, to develop knowledge societies, and scientific and technological innovation”

2030 Agenda for Sustainable Development,



Bridging the Geospatial Digital Divide

Meeting and exploiting the new data needs, information systems, analytics and associated enabling technologies and tools to support the implementation of the SDGs is going to take strategic policy leadership and transformational change - a digital transformation that is able to bridge the ‘geospatial digital divide’ which continues to inhibit development progress for all developing countries.

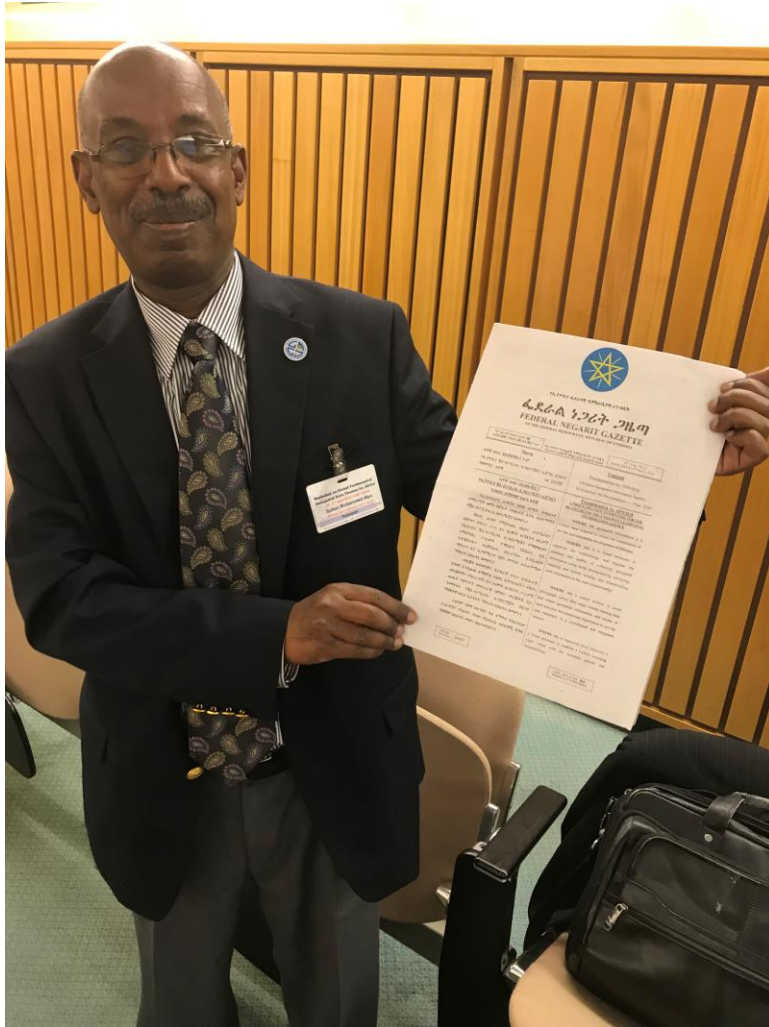


2030 Agenda: Goals, targets, indicators... and data!!



“By 2020, enhance capacity-building support to developing countries, including for LDCs and SIDS, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics...”





WHERE AS geospatial information is a critical input required to ensure the continuance of fast and sustainable development of Ethiopia



Strengthening the future mission of national geospatial information authorities will assist nations in achieving sustainable development, bridging the geospatial digital divide, secure socio-economic prosperity, and leave no one behind.



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INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK

A STRATEGIC GUIDE TO DEVELOP AND STRENGTHEN
NATIONAL GEOSPATIAL INFORMATION MANAGEMENT



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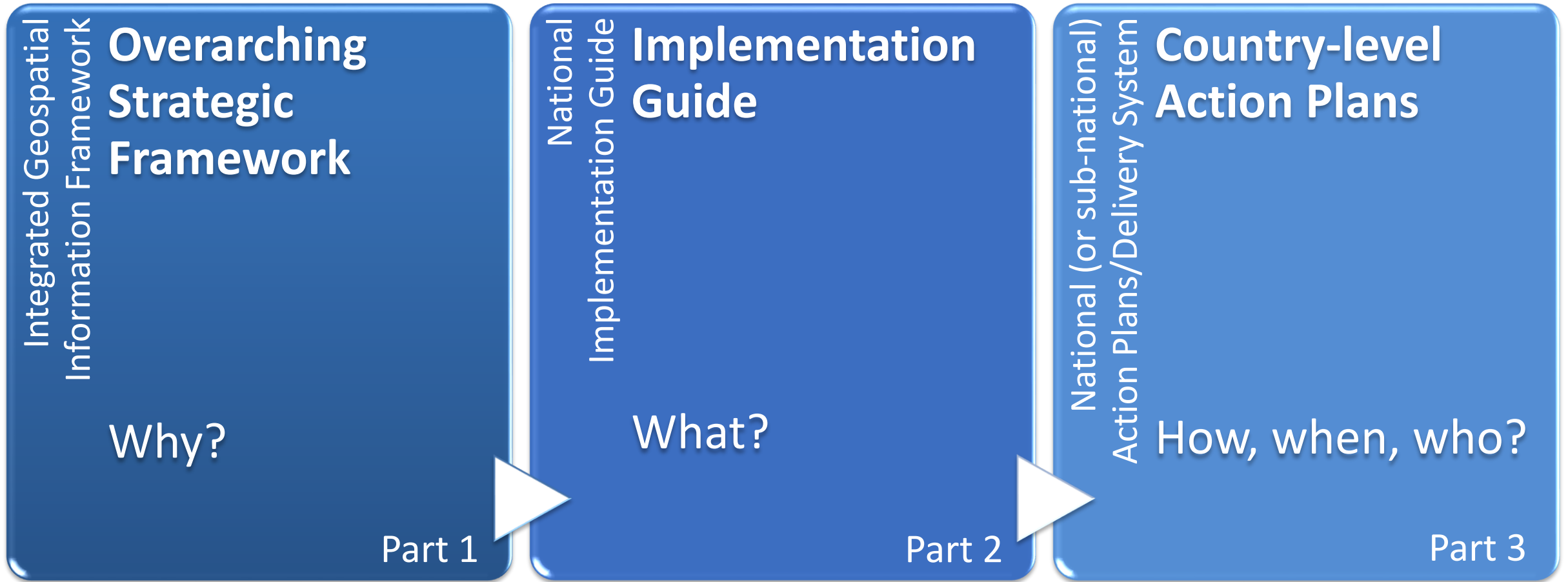
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Background

- In August 2017, UN-GGIM welcomed a new Collaborative Agreement between UNSD and the World Bank.
- The basis of the collaboration was a recognition of the growing need to explore and develop mechanisms for **geospatial data, infrastructure and policies** to be embedded more holistically within concessional financing, technical assistance and knowledge sharing services; and implementation in developing countries.
- A key deliverable of the collaboration is an overarching **geospatial information management framework** that Member States can reference when implementing integrated evidence-based decision-making solutions, and that maximizes and leverages national systems tailored to their own situations.
- The result is an **Integrated Geospatial Information Framework. Part 1: Overarching Strategic Framework**, adopted by UN-GGIM in August 2018.





The **Integrated Geospatial Information Framework** comprises a 3-parts as separate, but connected, documents. The **Overarching Strategic Framework** is complete and adopted by UN-GGIM. The structure and main elements of the **Implementation Guide** are developed and have in-principle approval. The **Country-level Action Plans** are work in progress.



Overarching Strategic Framework

- A forward-looking Framework built on national needs and circumstances.
- Provides the overarching strategic messages and more expansive and integrated national framework, particularly 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.
- It does 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 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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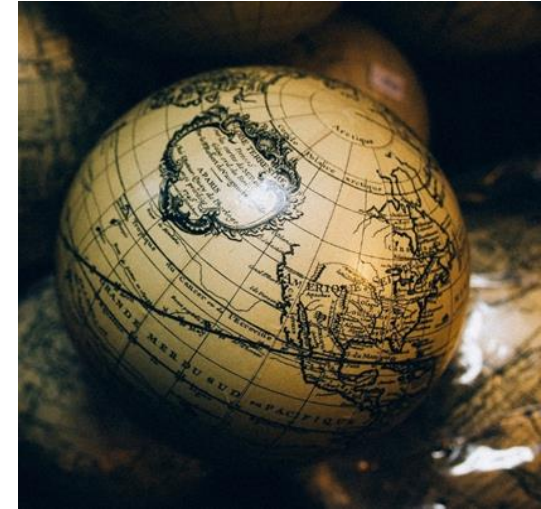
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Overarching Strategic Framework: Goals

- 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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Overarching Strategic Framework: Strategic Pathways

- The Framework is anchored by 9 Strategic Pathways in 3 main areas of influence: Governance; Technology; and People.
- The objective of the Strategic Pathways is to guide governments towards implementing integrated geospatial information systems in a way that will deliver a vision for sustainable social, economic and environmental development.
- Each Strategic Pathway is augmented by specific objectives to assist countries in achieving the required results.
- The Strategic Pathways are presented as separate pieces of a jigsaw puzzle in recognition that there are many aspects and dimensions to each individual pathway, and that when joined together, the Framework is connected, integrated and implemented.
- Each of the 9 Strategic Pathways are explained in more detail, along with specific actions, in Part 2: Implementation Guide.

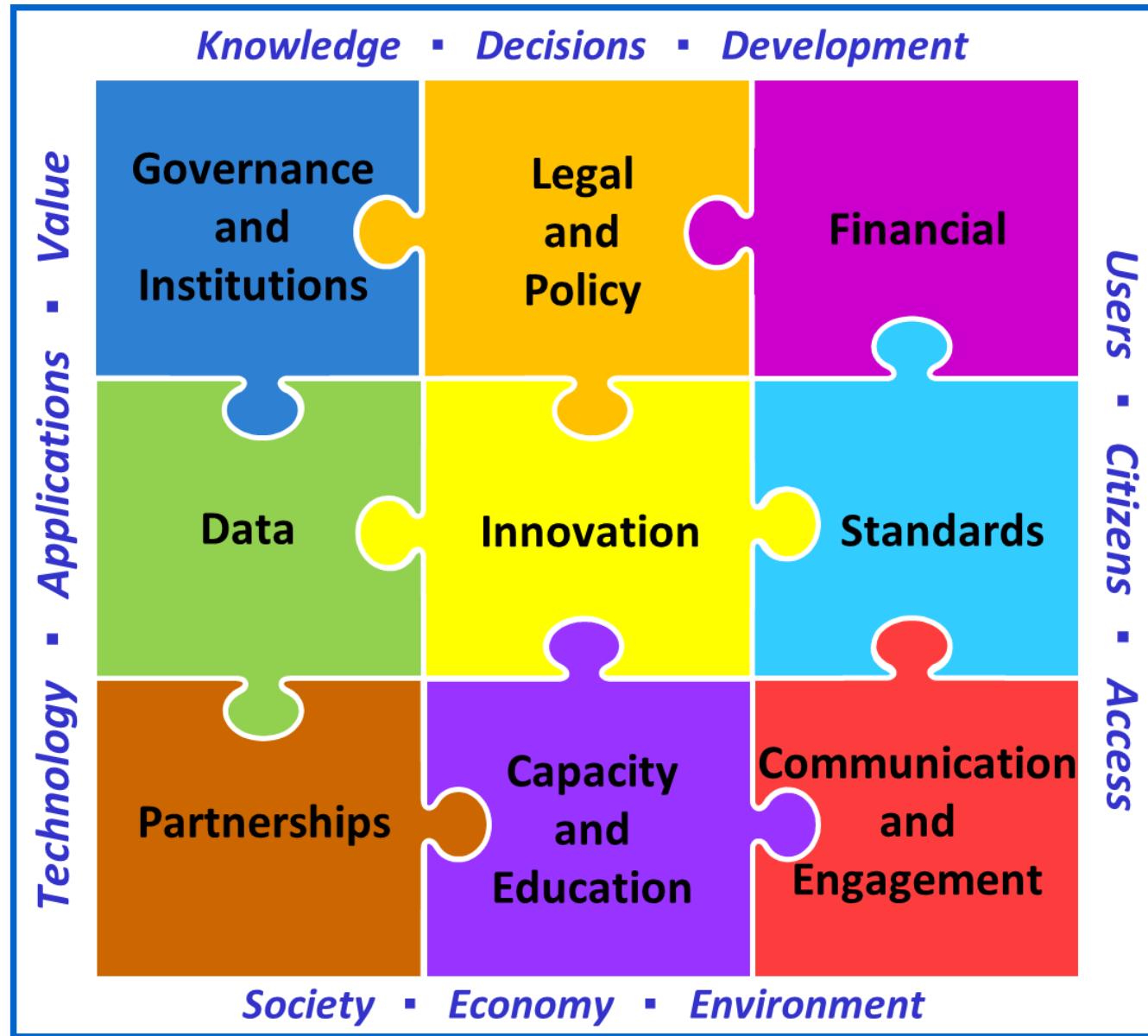


9 Strategic Pathways

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.

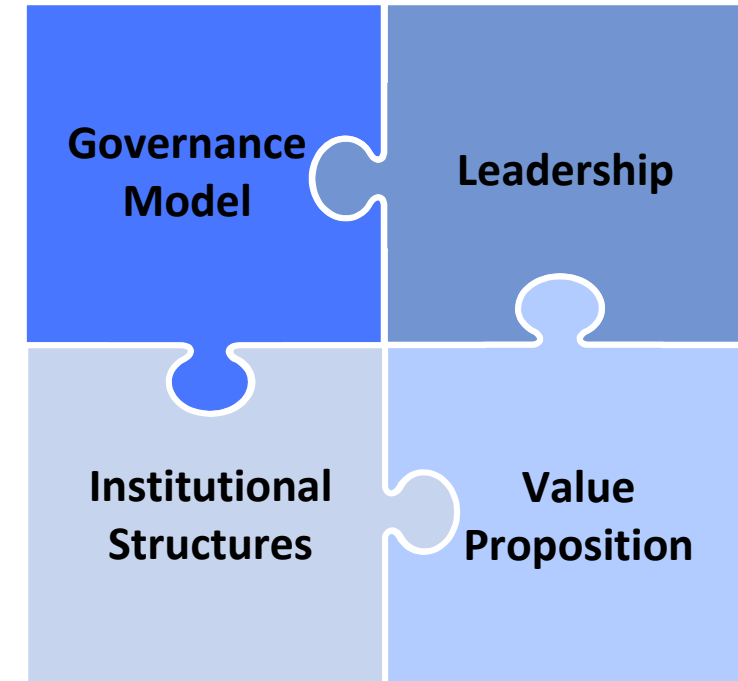


Strategic Pathway 1

Governance and Institutions

Establishes the leadership, governance model, institutional arrangements and a clear value proposition as a means to strengthen multi-disciplinary and multi-sectoral participation and a commitment to achieving an Integrated Geospatial Information Framework.

Objective is to attain political endorsement, strengthen institutional mandates and build a cooperative data sharing environment through a shared understanding of the value of an Integrated Geospatial Information Framework, and the roles and responsibilities to achieve the vision.



Strategic Pathway 2



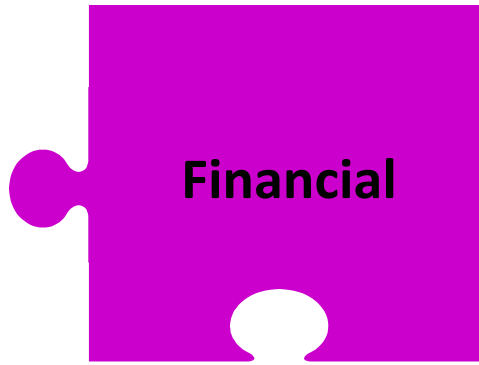
Legal and Policy

Establishes a robust legal and policy framework that is essential to institute appropriate national geospatial information legislation and policy that enables the availability, accessibility, exchange, application and management of geospatial information.

Objective is to address current legal and policy issues by improving the laws and policies associated with, and impact on, geospatial information management; proactively monitoring the legal and policy environment, particularly with regard to designating official responsibility for the production of data, and with respect to issues raised by emerging technologies and innovative and creative use of geospatial information.

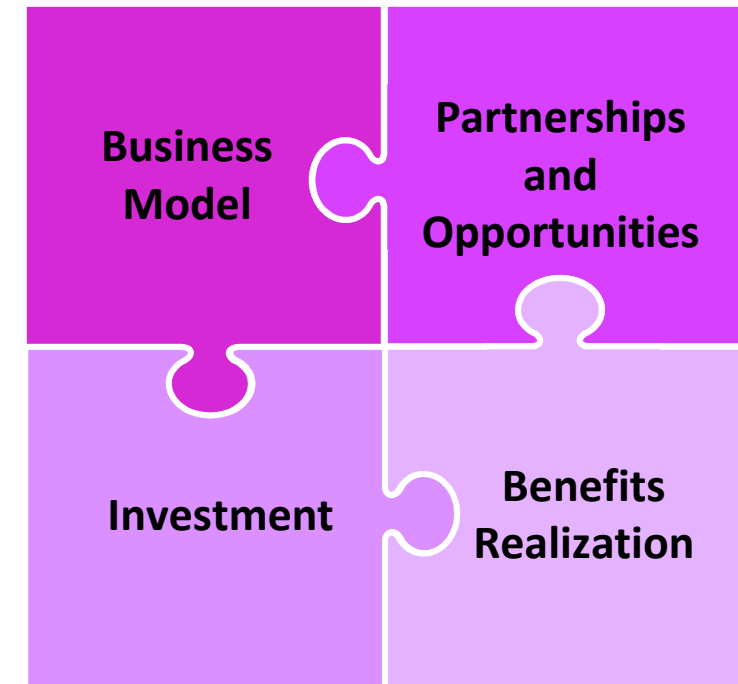


Strategic Pathway 3

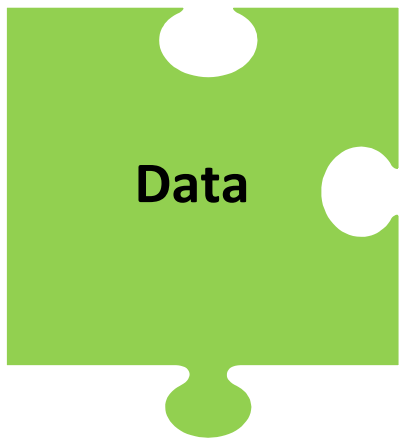


Establishes the business model, develops financial partnerships, and identifies the investment needs and funding sources for delivering integrated geospatial information management, as well as recognizing the benefits realization milestones that will achieve and maintain momentum.

Objective is to achieve an understanding of the implementation costs and ongoing financial commitment necessary to deliver integrated geospatial information management that can be sustained and maintained in the longer term.

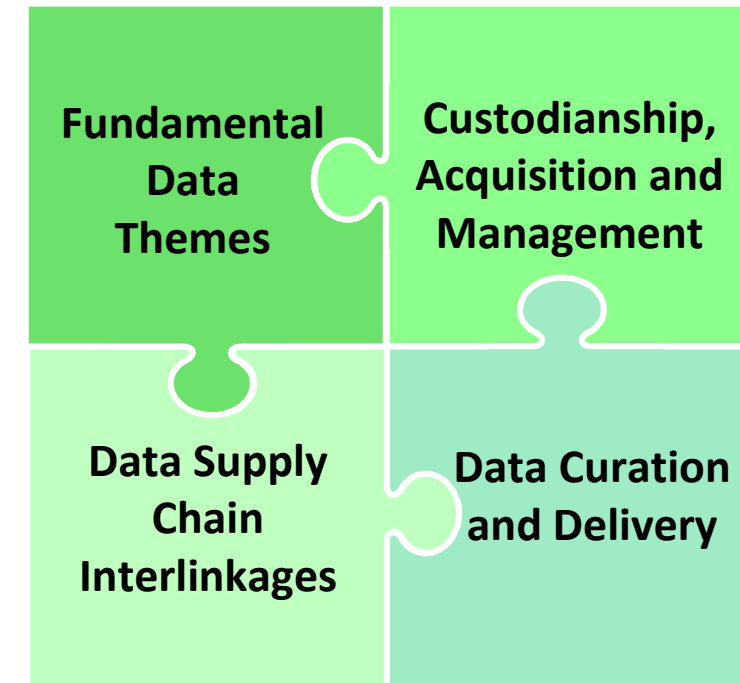


Strategic Pathway 4

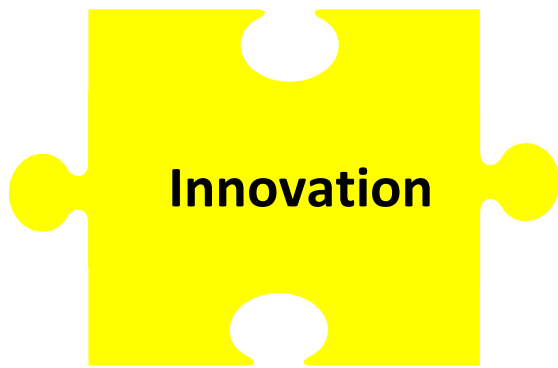


Establishes a geospatial data framework and custodianship guidelines for best practice collection and management of integrated geospatial information that is appropriate to cross sector and multidisciplinary collaboration.

Objective is to enable data custodians to meet their data management, sharing and reuse obligations to government and the user community through the execution of well-defined data supply chains for organizing, planning, acquiring, integrating, managing, maintaining, curating, publishing and archiving geospatial information.

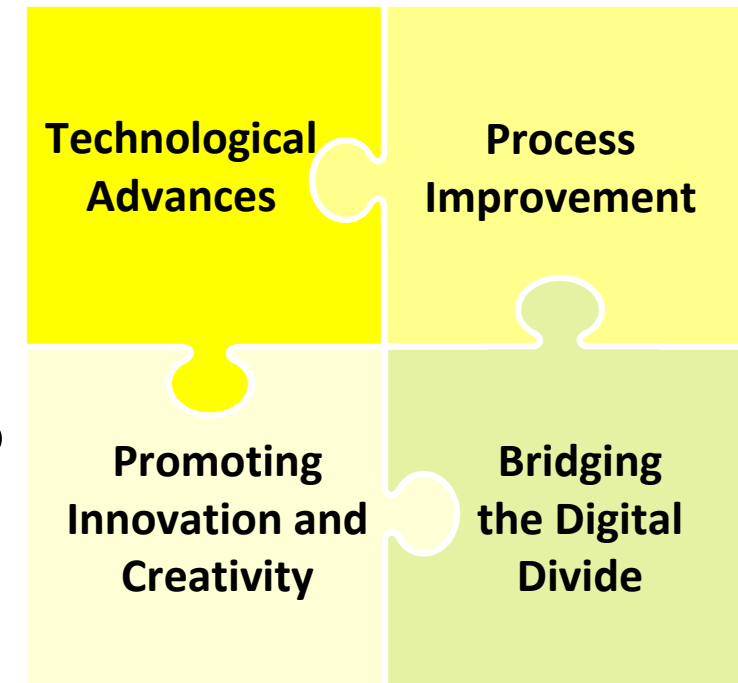


Strategic Pathway 5

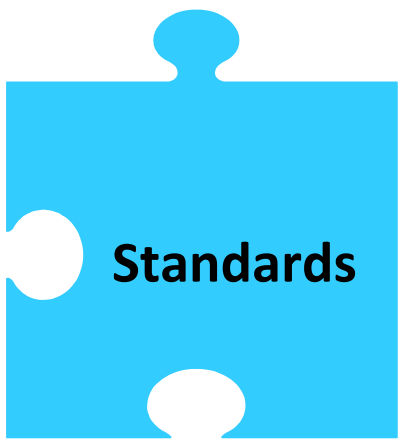


Recognizes that technology and processes are continuously evolving; creating enhanced opportunities for innovation and creativity that enable governments to quickly bridge the digital divide.

Objective is to stimulate the use of the latest cost-effective technologies, process improvements and innovations so that governments, no matter what their current situation is, may leapfrog to state-of-the-art geospatial information management systems and practices.

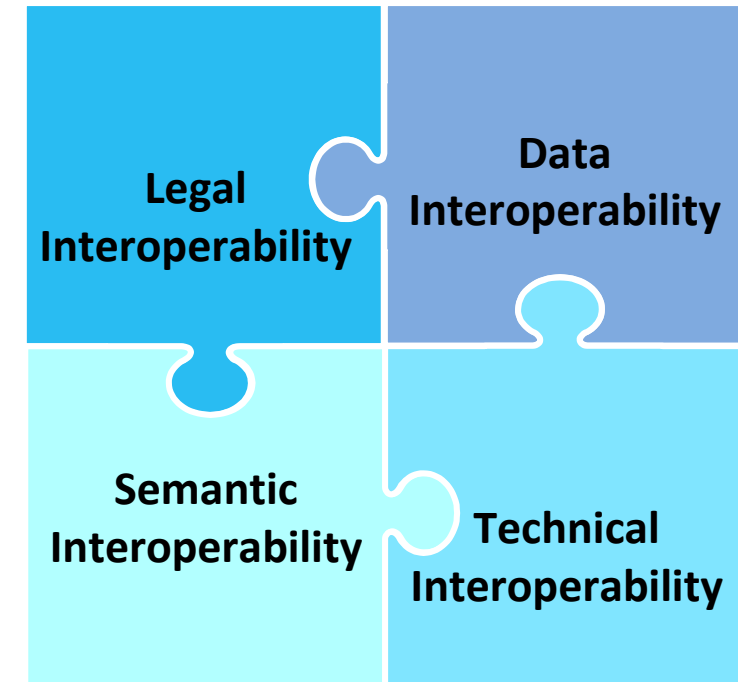


Strategic Pathway 6



Establishes, and ensures the adoption of, best practice standards and compliance mechanisms that enable legal, data, semantic and technical interoperability, which are fundamental to delivering integrated geospatial information and knowledge creation.

Objective is to enable different information systems to communicate and exchange data, enable knowledge discovery and inferencing between systems using unambiguous meaning, and provide users with lawful access to and reuse of geospatial information.



Strategic Pathway 7

Partnerships

Establishes effective cross-sector and interdisciplinary cooperation, industry and private sector partnerships, and international cooperation as an important premise to developing a sustainable Integrated Geospatial Information Framework.

Objective is to create and sustain the value of geospatial information through a culture based on trusted partnerships and strategic alliances that recognize common needs and aspirations, and national priorities.



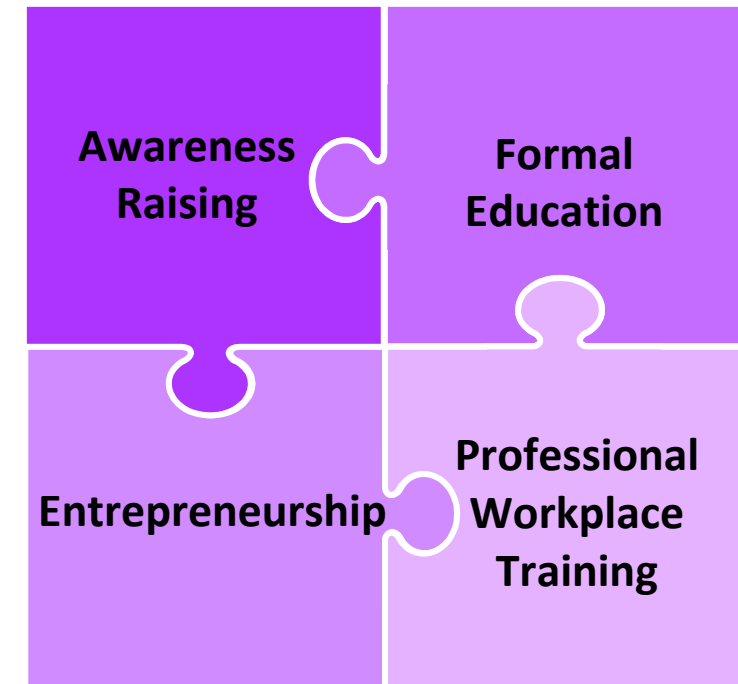
Strategic Pathway 8



Capacity and Education

Establishes enduring capacity building programs and education systems so that geospatial information management and entrepreneurship can be sustained in the longer term.

Objective is to increase the awareness and level of understanding of geospatial information science. This includes developing and strengthening the skills, instincts, abilities, processes and resources that organizations and communities require to utilize geospatial information for decision-making.

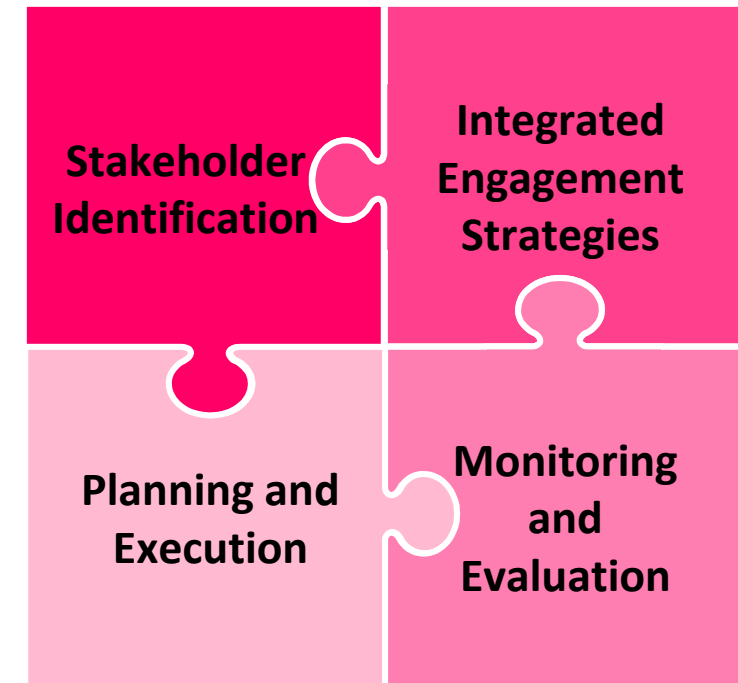


Strategic Pathway 9

Communication and Engagement

Recognizes that stakeholders (including the general community) are integral to the implementation of integrated geospatial information management systems and that their buy-in and commitment is critical to success.

Objective is to deliver effective and efficient communication and engagement processes to encourage greater input from stakeholders to achieve transparent decision-making processes when implementing the Geospatial Information Management Framework.

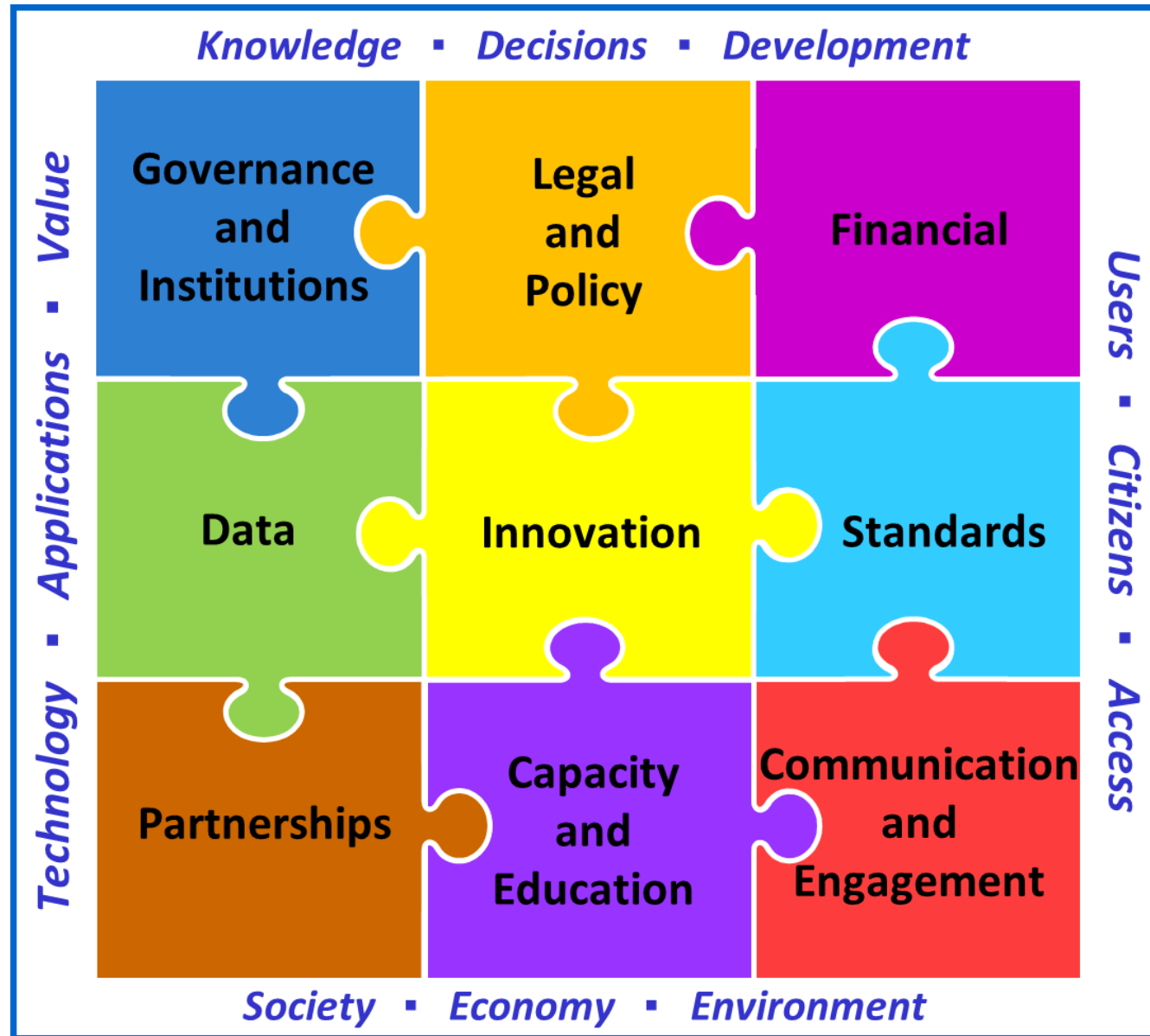


9 Strategic Pathways

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.



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 being developed as 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.



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