Positioning geospatial information to address global challenges

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The Data Ecosystem for Sustainable Development

Nationally Integrated Geospatial Information Management

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Any national SDG implementations will be sub-optimal without strategies and frameworks to integrate statistics, geospatial information, Earth observations, and other new data into the measuring, monitoring and reporting processes. An integrated data ecosystem is needed.
An integrative and interconnected data ecosystem

There needs to be more institutional collaboration, coordination and integration across the various national data frameworks, information systems and platforms.
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 inter-connectedness has great potential to accelerate human progress, to bridge the digital divide, to develop knowledge societies, and to foster scientific and technological innovation.

2030 Agenda for Sustainable Development, para. 14-15

Providing 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.

Greg Scott, November 2016
“develop an overarching Geospatial Framework……”

“prepare and implement country level Action Plans…..”
The Integrated Geospatial Information Framework provides a basis and guide for developing, integrating and strengthening 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.
Part 1: Overarching Strategic Framework - WHY geospatial information management needs to be strengthened.
Part 2: Implementation Guide - WHAT actions can be taken to strengthen geospatial information management.
Part 3: Country-level Action Plans - HOW the actions will be carried out, WHEN and by WHOM.
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.
# Positioning Geospatial Information to Address Global Challenges

## 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.

## STRATEGIC DRIVERS

## UNDERPINNING PRINCIPLES

<table>
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<tr>
<th>Strategic Enablement</th>
<th>Transparent and Accountable</th>
<th>Reliable, Accessible and Easily Used</th>
<th>Collaboration and Cooperation</th>
<th>Integrative Solution</th>
<th>Sustainable and Valued</th>
<th>Leadership and Commitment</th>
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## GOALS

- **Effective Geospatial Information Management**
- **Sustainable Education and Training Programs**
- **Increased Capacity, Capability and Knowledge Transfer**
- **International Cooperation and Partnerships Leveraged**
- **Integrated Geospatial Information Systems and Services**
- **Enhanced National Engagement and Communication**
- **Economic Return on Investment**
- **Enriched Societal Value and Benefits**

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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.

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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Global Geospatial Information Management

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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.

9 Strategic Pathways

Governance and Institutions

Policy and Legal

Financial

Data

Innovation

Standards

Partnerships

Capacity and Education

Communication and Engagement

Society • Economy • Environment

Technology • Applications • Value

Users • Citizens • Access

Governance

Technology

People

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

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

Leadership drives change. It is realized by having a vision, the capacity to take positive steps, and knowing the tactics to achieve the vision. With strong leadership, anything is possible; without leadership, very little is achievable.
Technology and processes are continually evolving, providing enhanced opportunities for innovation and creativity that enable governments and citizens to quickly bridge the geospatial digital divide.

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

This is why ‘Innovation’ is at the centre of the 9 Strategic Pathways. Innovation has the potential to have the most significant impact on stimulating and triggering rapid change and being able to bridge the geospatial digital divide.
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9 Strategic Pathways

- Governance
- Technology
- People

Knowledge • Decisions • Development

Technology • Applications • Value

Governance and Institutions • Policy and Legal • Financial

Data • Innovation • Standards

Partnerships • Capacity and Education • Communication and Engagement

Society • Economy • Environment

Users • Citizens • Access

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 technology, policies, standards, human resources and related activities to acquire, process, distribute, use, maintain and preserve spatial data" (OMB 2002).
IGIF: Linkages to the GSGF

PRINCIPLES
- Accessible & usable
- Statistical and geospatial interoperability
- Common geographies for dissemination of statistics
- Geocoded unit record data in a data management environment
- Use of fundamental geospatial infrastructure and geocoding

KEY ELEMENTS
- Standards and Good Practices
- National Laws and Policy
- Technical Infrastructure
- Institutional Collaboration

INPUT
Geospatial
- Fundamental data
- Supplementary data
- New data sources

Statistical
- Censuses
- Surveys
- Administrative data records
- Big data and other sources

OUTPUT
Integration
- Harmonised and standardised information

Interoperability
- Comparability

Analysis
- Decision making
- Diffusion

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