

**"Disseminating the Integrated Framework of Geospatial Information. Uses and applications in Chile"**  
12 September 2019, Santiago, Chile

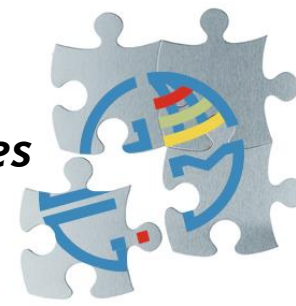
# The IGF: Strengthening National Geospatial Information Arrangements

**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



# UN-GGIM

*Positioning geospatial information to address global challenges*



Established in 2011, reports annually to ECOSOC, an intergovernmental United Nations Committee of Experts to:

- Discuss, enhance and coordinate Global Geospatial Information Management activities by involving Member States at the highest level.
- Work with Governments to make joint decisions and set directions on the use of geospatial information within national and global policy frameworks.
- Address global issues and contribute collective knowledge as a community with shared interests and concerns.
- Develop effective strategies to build geospatial capacity in developing countries.
- To make accurate, reliable and authoritative geospatial information readily available to support national, regional and global development.



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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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# Surveying the 'Geospatial Future' in the 21<sup>st</sup> Century

What is geospatial information, mapping, geography, surveying today?  
Location, positioning, place.....data, decision-making?  
How do we use it, best leverage it, communicate it, value it?  
What does it mean? What is its identity? How mainstream is it?  
What is next? Is it an industry in its own right?  
Or is it a data and technology enabler for many, or all, industries?

Geospatial information is not just data, software, hardware, applications, solutions...it is the instrument of geography; the 'geography' of data, software, applications, solutions...

Geospatial information is the integrative glue for everything else. Without it other things are often meaningless and/or without context.....let alone location.

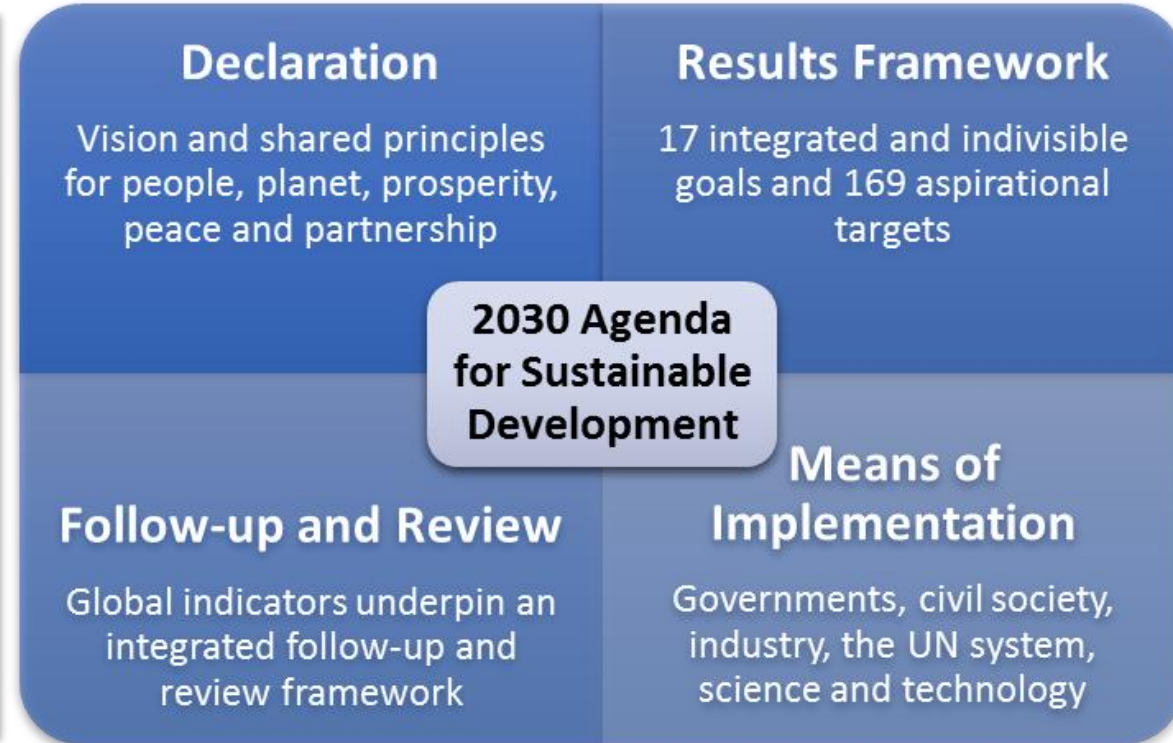
The role of geospatial information is changing and evolving rapidly...  
...especially with the global development agendas



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.



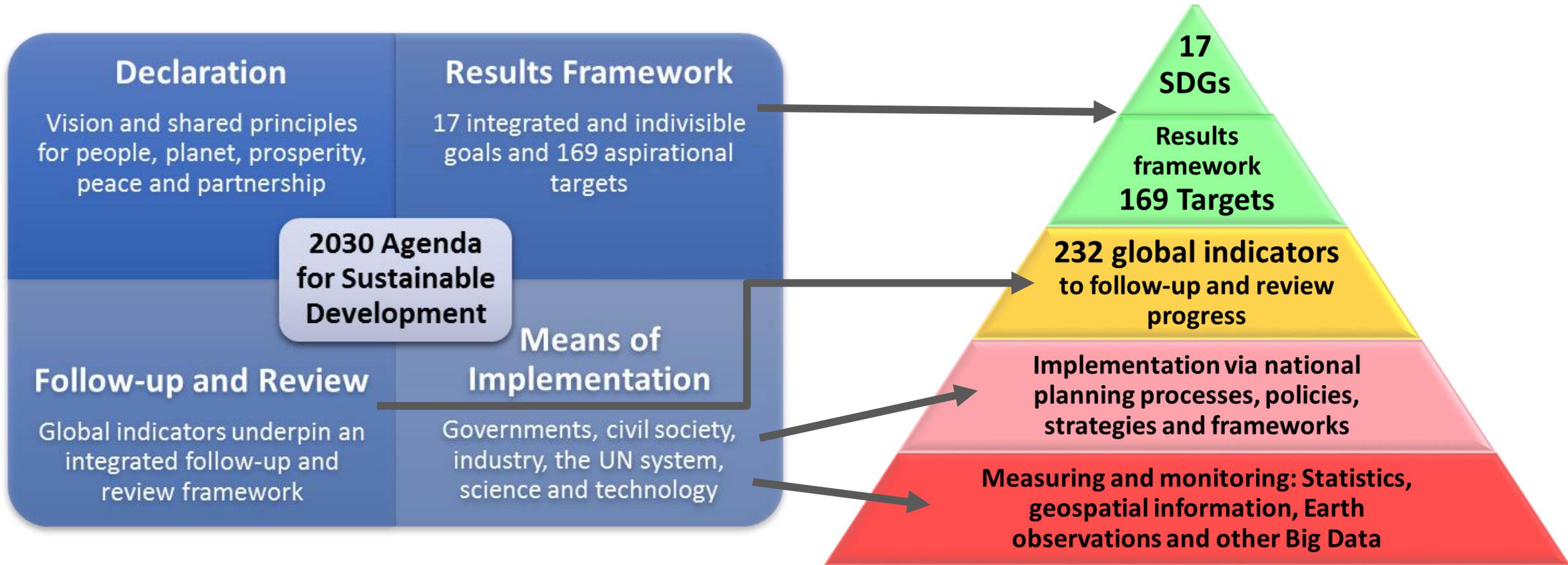
# 2030 Agenda: Goals, targets, indicators, implementation



The 2030 Agenda is an Integrated Plan of Action structured in four main parts: (i) Vision and principles for transforming our world as set out in the Declaration; (ii) Results framework of 17 SDGs and 169 targets; (iii) Means of implementation through governments, society and global partnership; and (iv) Follow-up and review framework of global indicators.



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



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.

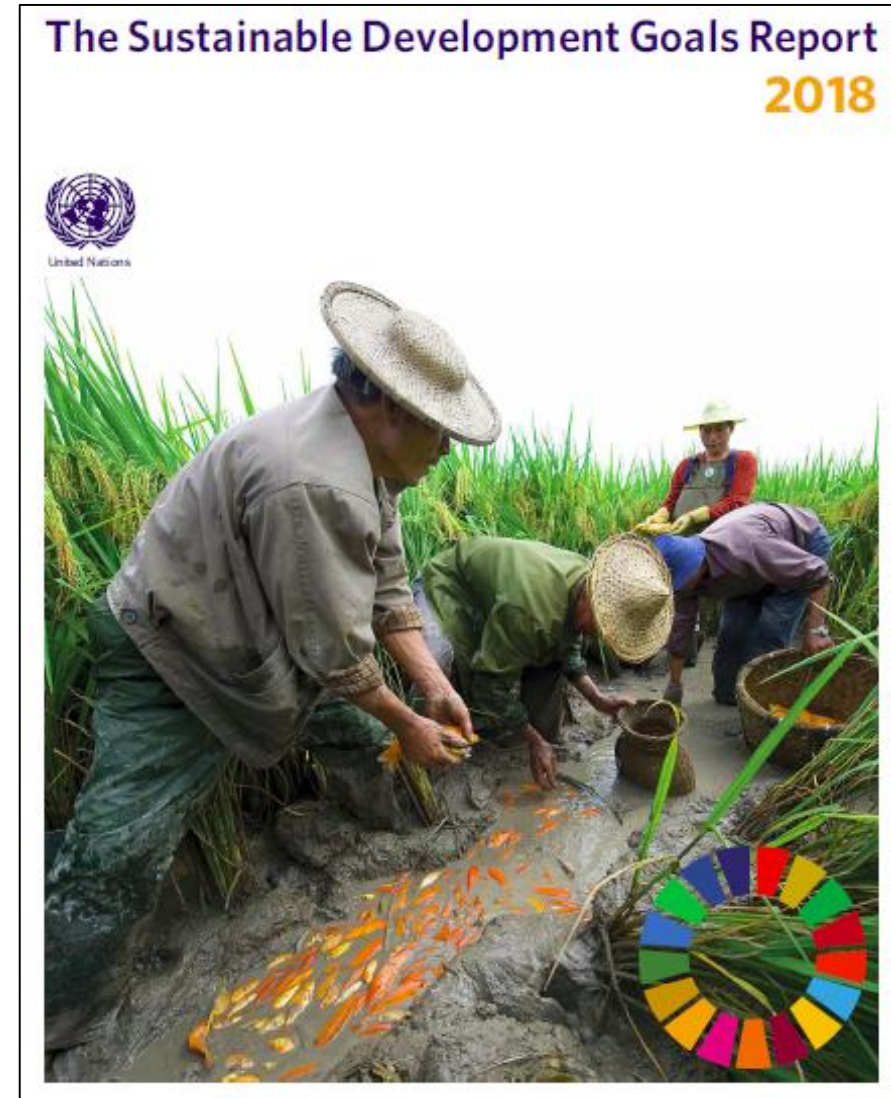


# The Sustainable Development Goals Report 2018

*“Without evidence of where we stand now we cannot confidently chart our path forward in realizing the SDGs. To that end, this Report reflects on the challenges faced in the collection, processing, analysis and dissemination of reliable, timely, accessible and sufficiently disaggregated data, and calls for better evidence-based policymaking.*

*Today’s technology makes it possible to collate the data we need to keep the promise to leave no one behind. But we need political leadership, resources and commitment to use the tools now available”*

António Guterres  
Secretary-General, United Nations



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# The Sustainable Development Goals Report 2019

*“It is abundantly clear that a much deeper, faster and more ambitious response is needed to unleash the social and economic transformation needed to achieve our 2030 goals. From our advances, we know what works. This report therefore highlights areas that can drive progress across all 17 SDGs: financing; resilience; sustainable and inclusive economies; more effective institutions; local action; better use of data; and harnessing science, technology and innovation with a greater focus on digital transformation. In everything we do, we must diligently ensure that policy choices leave no one behind, and that national efforts are supported by effective international cooperation, grounded in a commitment to diplomacy and crisis prevention”*

António Guterres  
Secretary-General, United Nations



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## The Sustainable Development Goals Report 2019

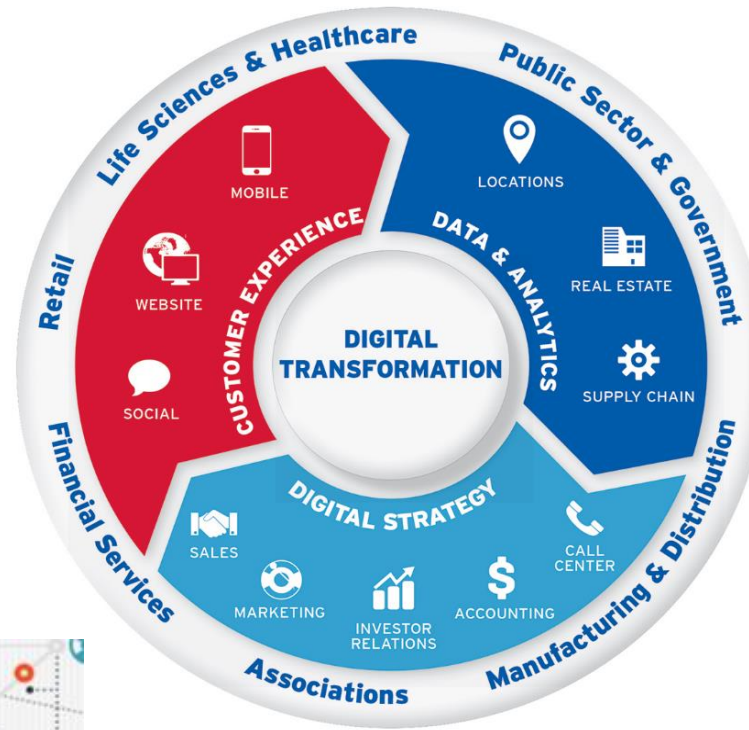


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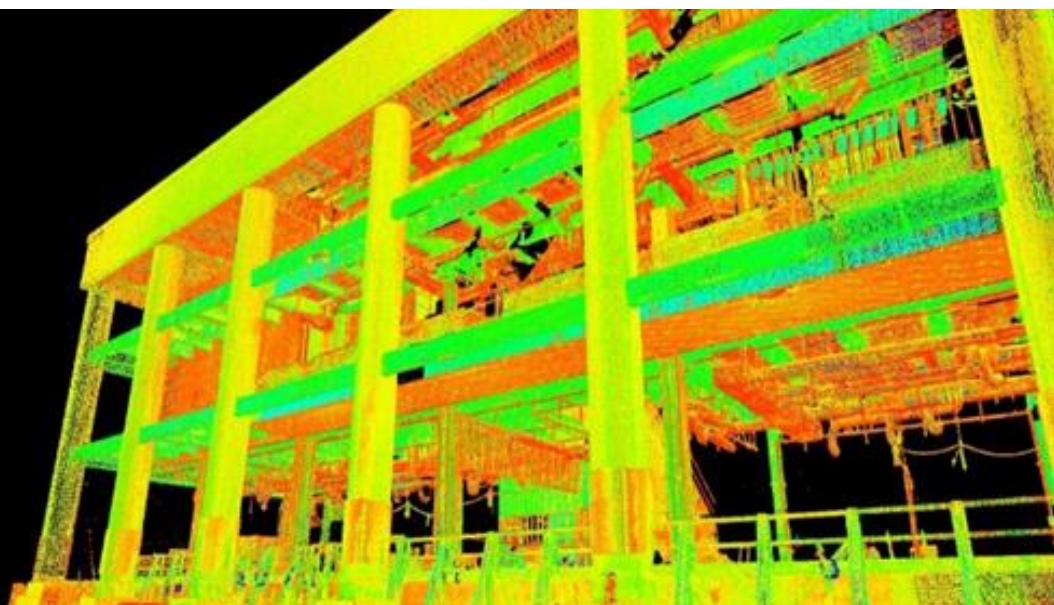
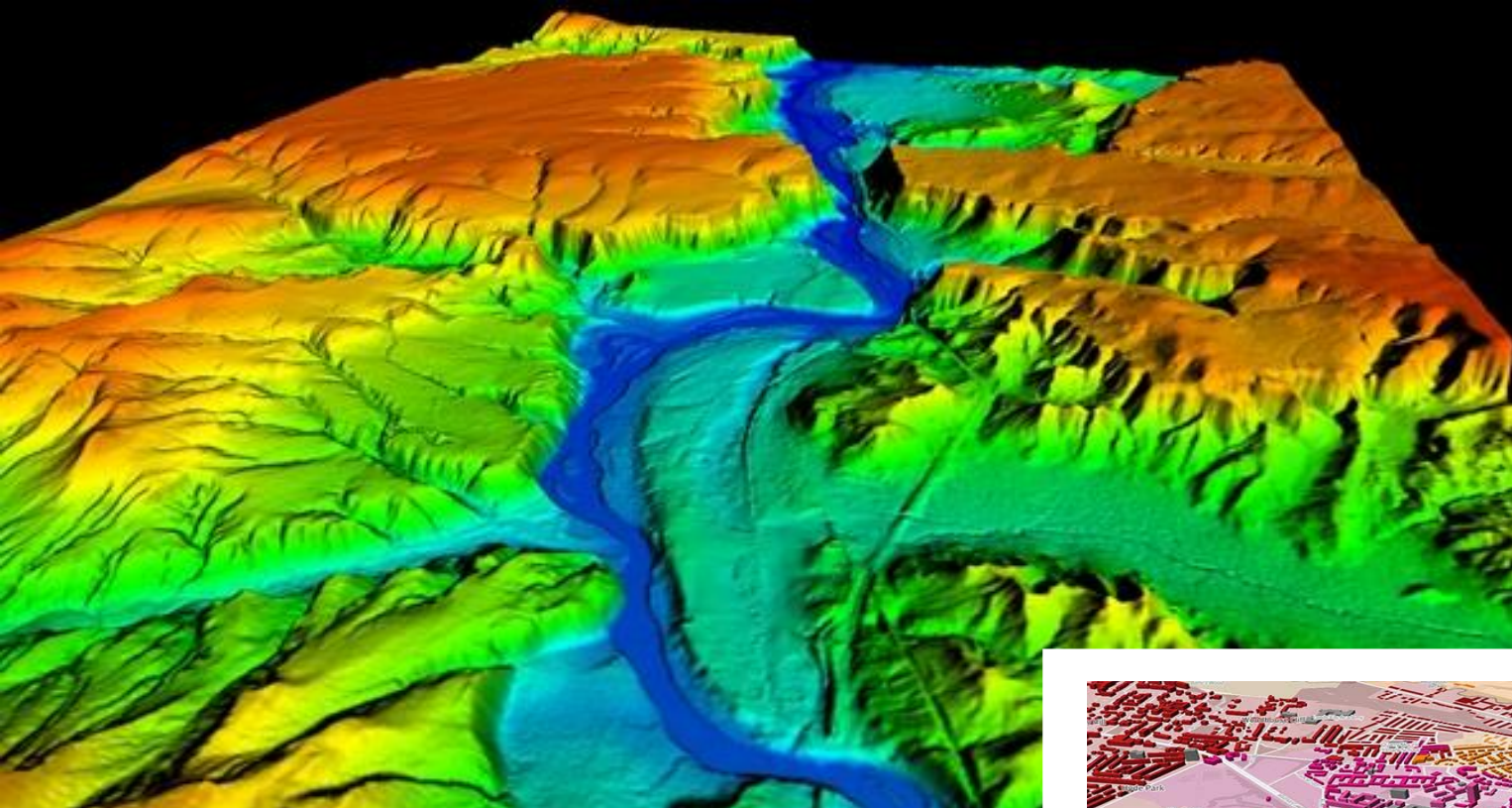


# The disruptive nature of digital transformation



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





# Surveying the 'Geospatial Future' in the 21<sup>st</sup> Century

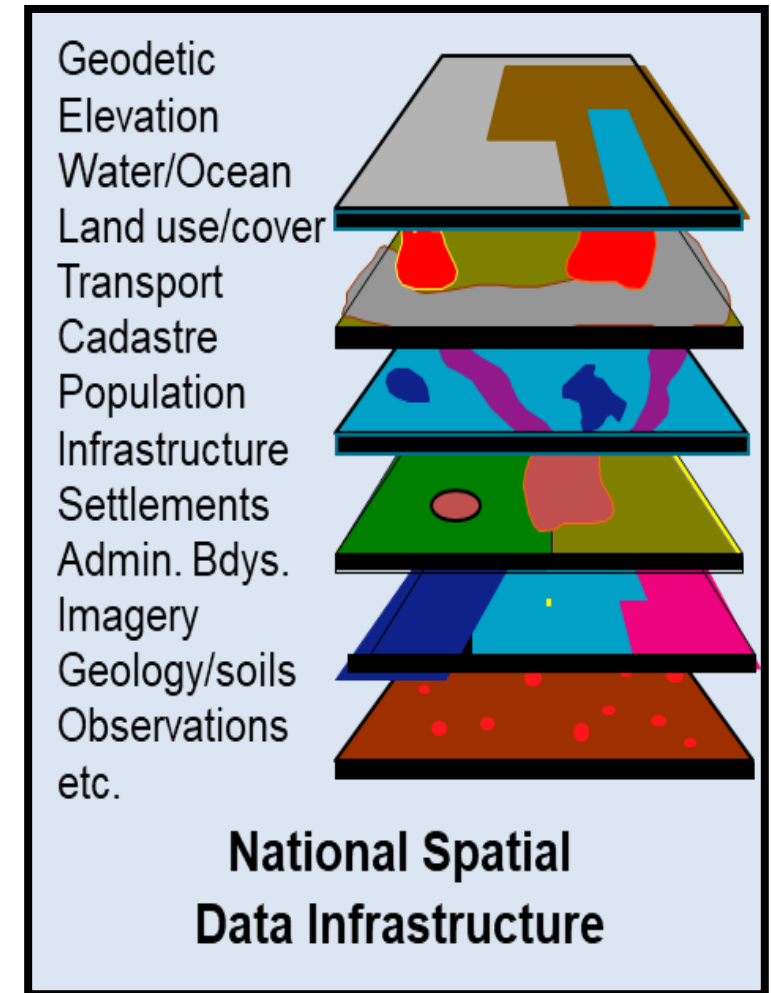
What is changing rapidly is the pace at which high fidelity data is being made available... combined with enabling technologies and sophisticated analytics... that are able to collect and manipulate the data. **How do we keep up?**

Change itself is not the problem...that is inevitable progress.

It is the pace of change that is so challenging. How to respond to this pace... and the many multi-dimensional aspects?

New technologies that drive the collection, use and storage of data are increasing the relevance and quality of geospatial information.

Better and more relevant geospatial data is providing new information and knowledge about a range of sectors, increasing the potential, value and productivity of the data...and the record of evidence.





**“develop an overarching  
Geospatial Framework.....”**

**“prepare and implement  
country level Action Plans.....”**



**ROADMAP FOR COLLABORATION**

**BETWEEN**

**WORLD BANK’S GLOBAL PRACTICE ON  
SOCIAL, URBAN AND RURAL DEVELOPMENT,  
AND RESILIENCE**

**AND**

**UNITED NATIONS STATISTICS DIVISION**

**TO ASSIST COUNTRIES TO BRIDGE  
GEOSPATIAL DIGITAL DIVIDE**



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**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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# IGIF: 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.

- 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.



# 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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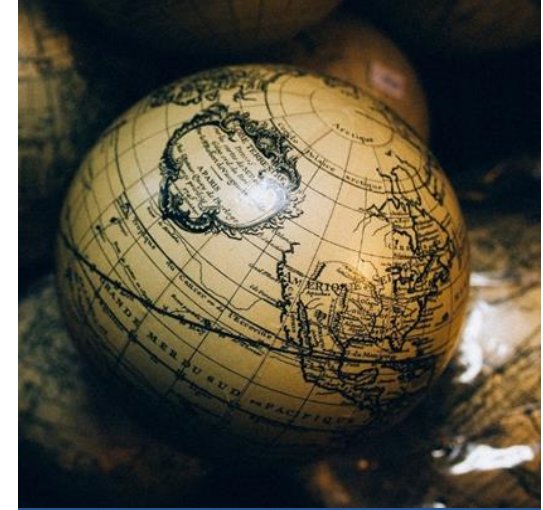
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# Overarching Strategic Framework: Goals

- 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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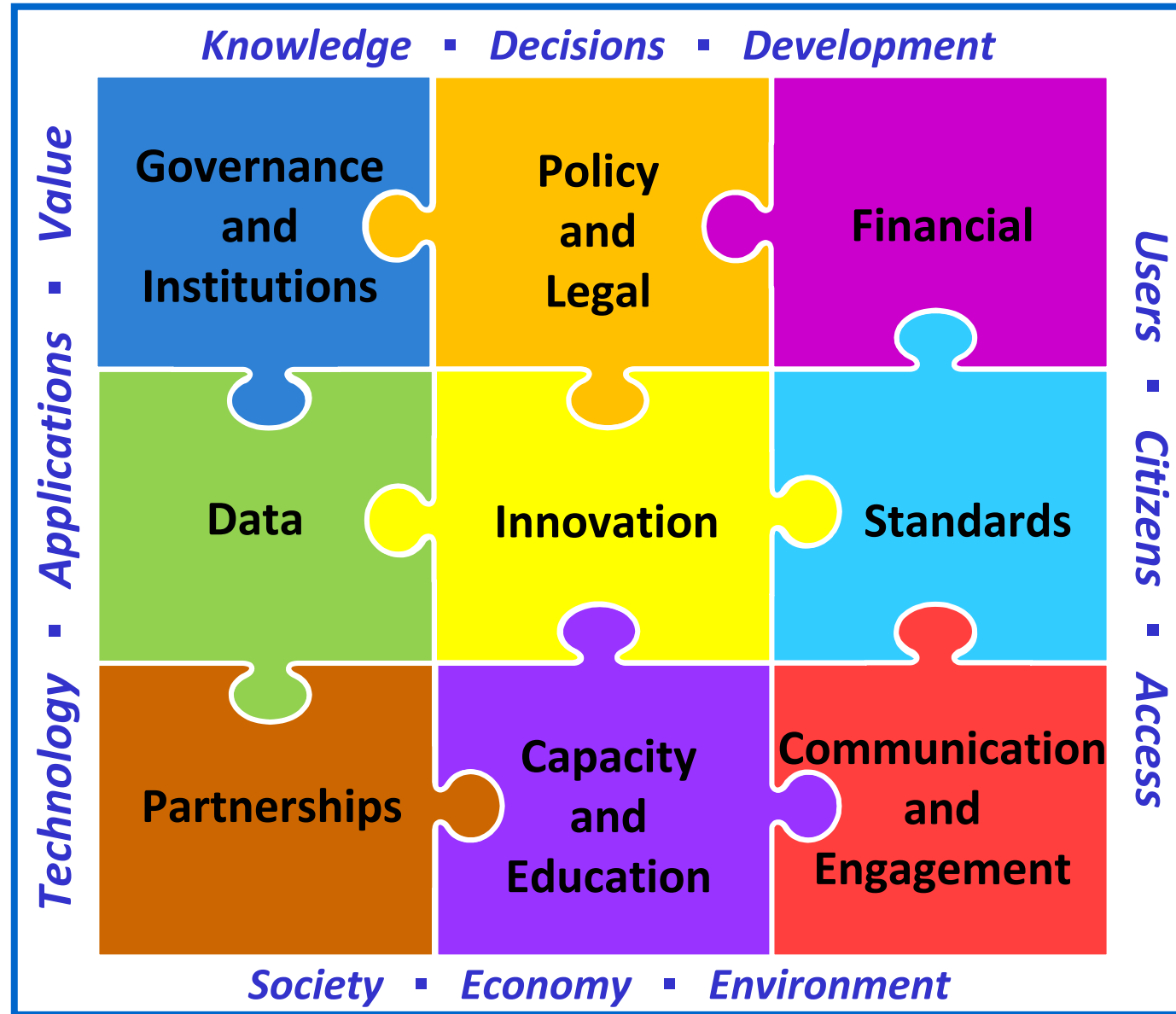
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# 9 Strategic Pathways

*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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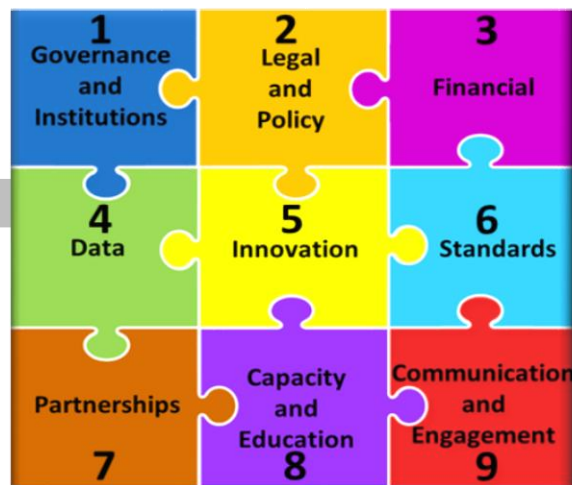
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# IGIF: Implementation Guide - Foundations

- 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.



SP 4  
Data



National  
Implementation  
Guide

**Implementation  
Guide**

What?

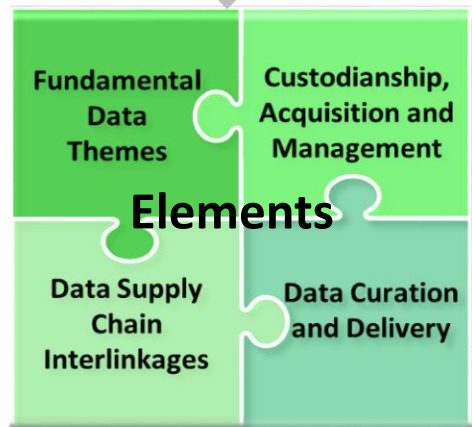
Part 2

Integrated Geospatial  
Information Framework

**Overarching  
Strategic  
Framework**

Why?

Part 1



**Interrelated  
Actions**

**Outcomes  
and  
Benefits**

**Guiding  
Principles**

**Actions**

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

**Country-level  
Action Plans**

How, when, who?

Part 3





National Implementation Guide

# Implementation Guide

What?

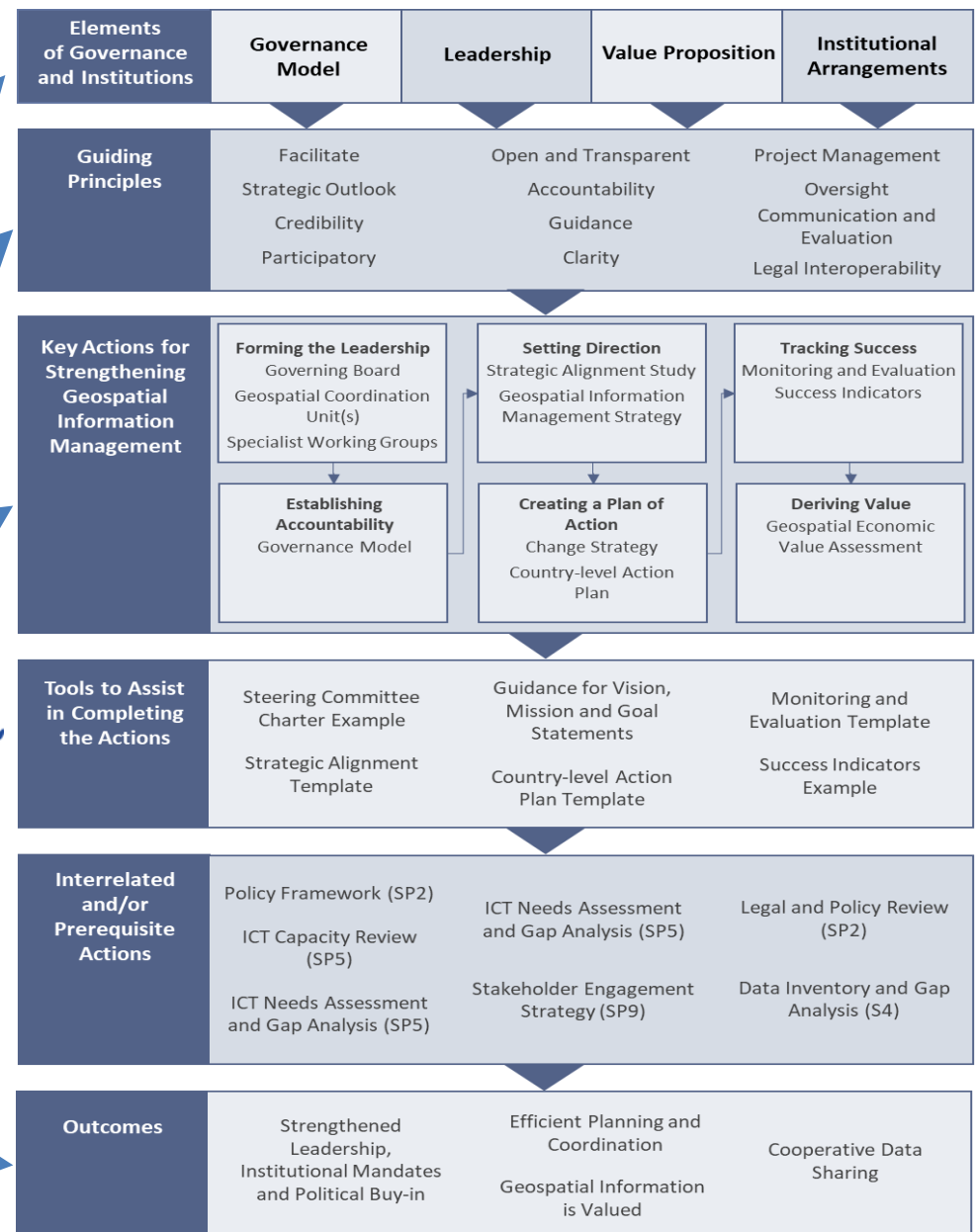
Part 2

The overall structure diagram for the Chapter as part of the 3-page Summary. Shows what is in the Chapter and the relevance between sections.

## Document Structure

- Abstract
- Summary
- 1.1 Introduction
- 1.2 Context and Rationale
- 1.3 Approach
- 1.4 Elements
- 1.5 Guiding Principles
- 1.6 Actions
- 1.7 Deliverables
- 1.8 Outcomes
- 1.9 Resources

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





# INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK

## DEVELOPING THE COUNTRY-LEVEL ACTION PLANS

### JANUARY - SEPTEMBER 2019



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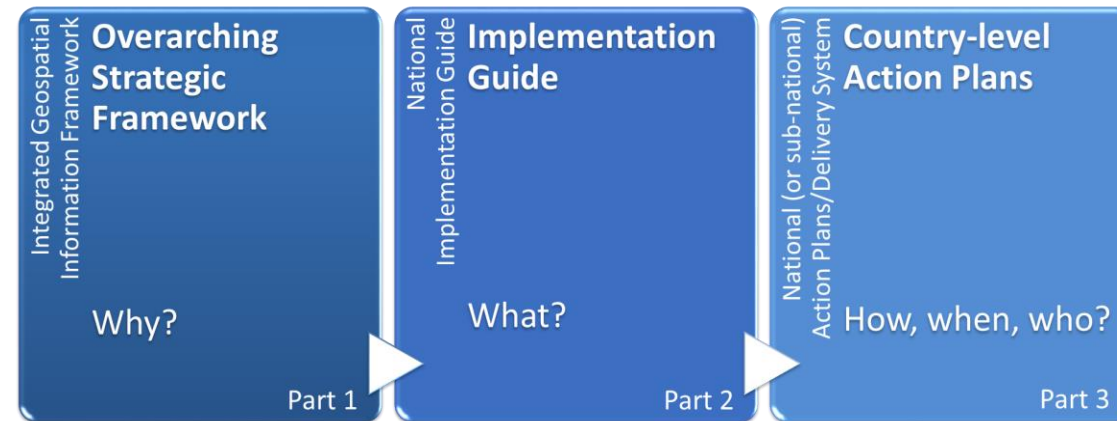
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# IGIF: Country-level Action Plans (CAPs)

- 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.

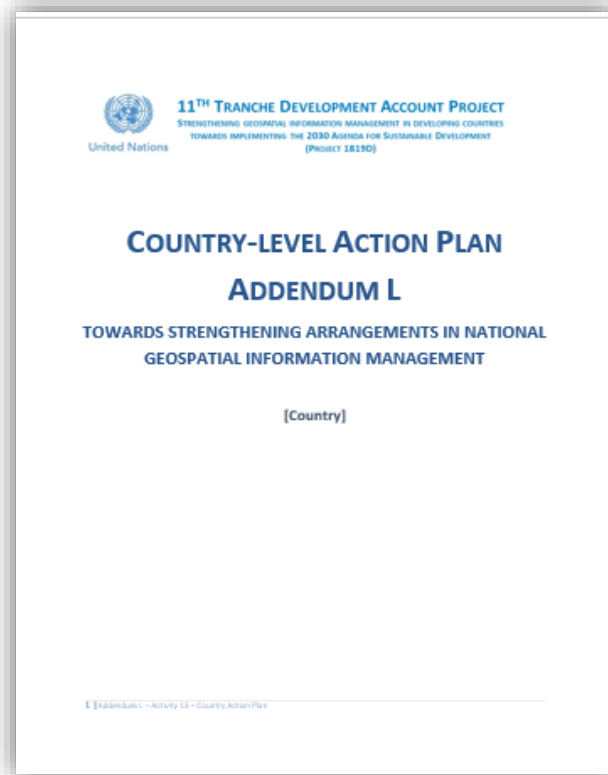
Part 2: Implementation Guide – **WHAT** types of actions can be undertaken to strengthen geospatial information management.

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

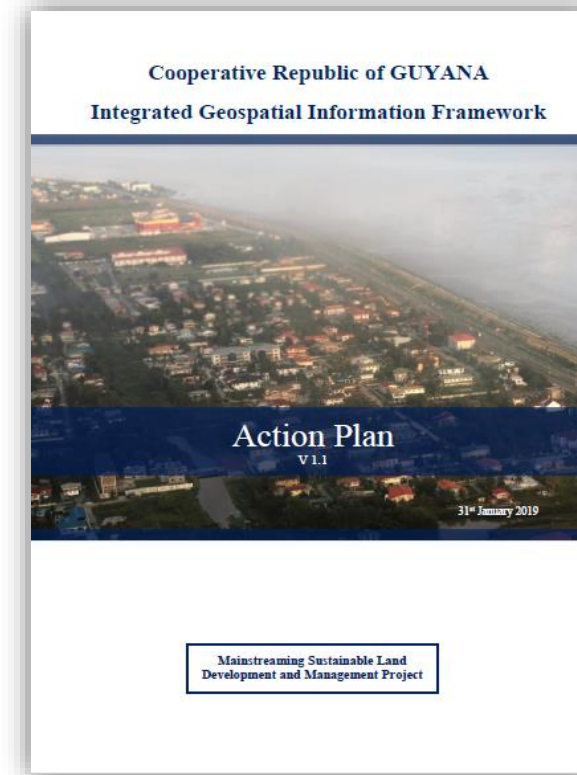


# IGIF: Country-level Action Plans - Approaches

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.



# Summary

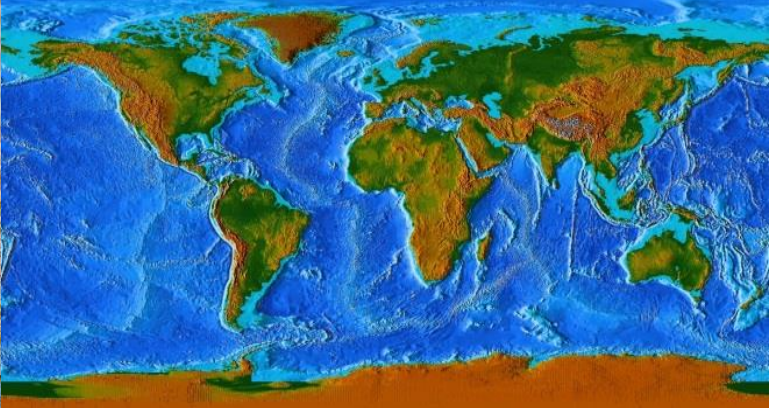
## The 21<sup>st</sup> Century Challenge:

- We function in times of disruption: rapidly increasing amounts of data, enabling technologies and associated analytics.
- New roles are emerging for National Geographic Institutes.
- Opportunity to apply these to the benefit of national priorities and economic development more holistically....and building capacity!
- This means moving up the value chain. No longer data collectors, but data connectors and integrators. The information is the currency for policy.
- Data realignment: Outcomes that are more definitive, diversified, integrated, accessible and dynamic. Answering real world problems!
- Data aggregation and disaggregation: National - local - national.
- Collaborate and communicate: Link up with other government agencies...and industry. They need you!



**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.**





**"Disseminating the Integrated Framework of Geospatial Information. Uses and applications in Chile"**  
12 September 2019, Santiago, Chile

# **The IGIF: Strengthening National Geospatial Information Arrangements**

## **Muchas Gracias!!**

