

The Kuala Lumpur International Seminar on UN-GGIM "Integrated Geospatial Information Framework" in conjunction with the 21st International Surveyors Congress of the Royal Institution of Surveyors, Malaysia Hotel Istana, Kuala Lumpur, Malaysia, 20 June 2019

The IGIF: Towards evidence-based policies and decisions for the wellbeing of people and planet

Greg Scott, UN-GGIM Secretariat

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United Nations Statistics Division
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"Local, regional and global issues and challenges in the 21st century are different from the past, and as responsible professionals, we should always 'survey the future' to understand the trends by continually monitoring internal and external events and drivers so that responsible, timely, evidence-based responses can be made"

UN-GGIM

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.





"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.



Global Development Agendas



United Nations

Framework Convention on Climate Change





UN-GGIM









UN Conference on Small Island Developing States Apia, Samoa | 2014





2030 Agenda: Goals, targets, indicators, implementation



Declaration

Vision and shared principles for people, planet, prosperity, peace and partnership

Results Framework

17 integrated and indivisible goals and 169 aspirational targets

2030 Agenda for Sustainable Development

Follow-up and Review

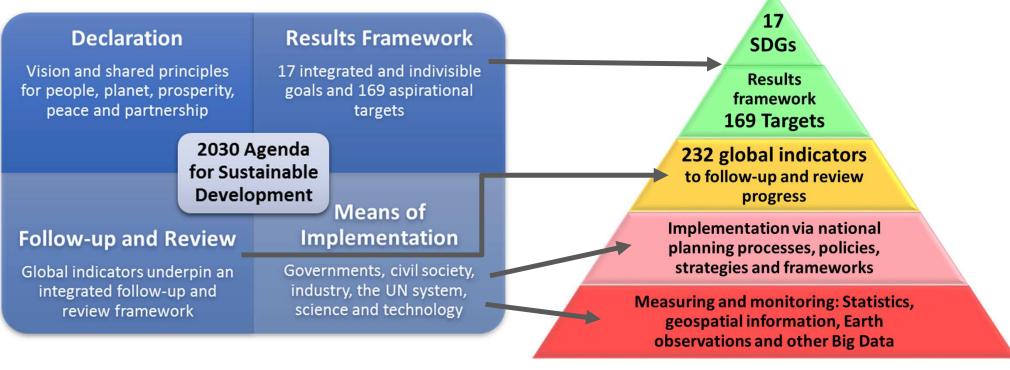
Global indicators underpin an integrated follow-up and review framework Means of Implementation

Governments, civil society, industry, the UN system, science and technology

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.



JN-GGIM

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.

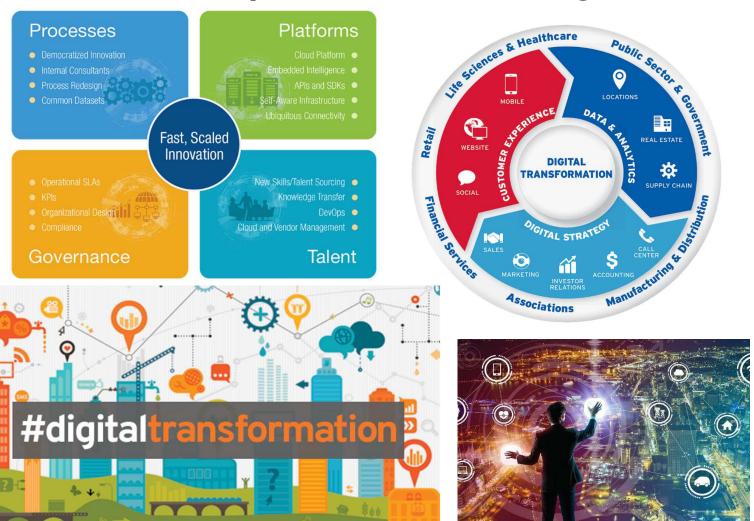
Today's technology makes it possible to collate the data we need to keep the promise to leave no one behind. But we need political leadership, resources and commitment to use the tools now available"

António Guterres Secretary-General, United Nations



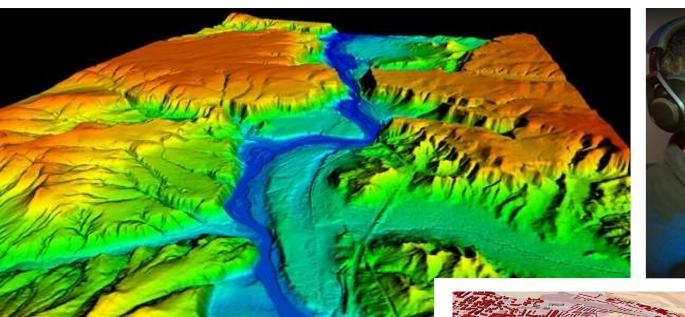


The disruptive nature of digital transformation

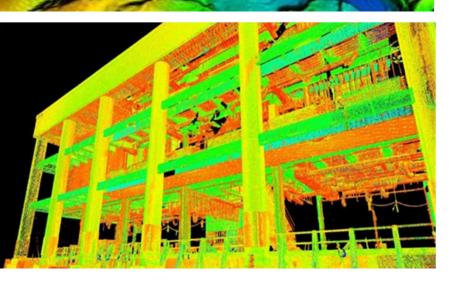




The disruptive nature of digital transformation, technology, innovation, and their exponential impacts, means that society's expectations on how, and at what level of detail, we record what is happening where and when are changing at a rapid pace.



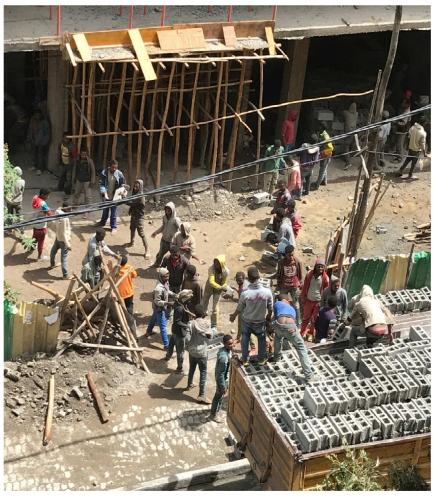






The disruptive nature of digital transformation







Surveying the 'Geospatial' Future in the 21st Century

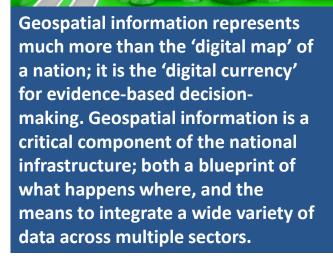
What is geospatial information? Geography? Location data? How mainstream is it?

How do we use it, best leverage it, communicate it, value it? What does it mean? What is its identity? 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...





Surveying the 'Geospatial' Future in the 21st Century

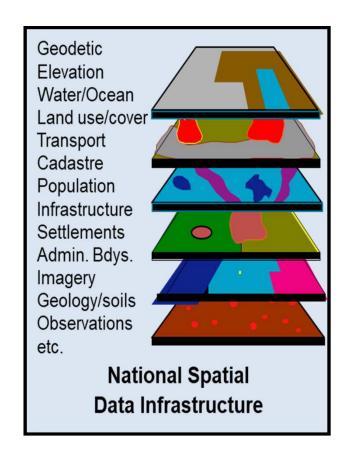
What is changing rapidly is the pace at which high fidelity data is being made available... combined with enabling technologies and sophisticated analytics... that are able to collect and manipulate the data. How do we keep up?

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 multidimensional aspects?

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

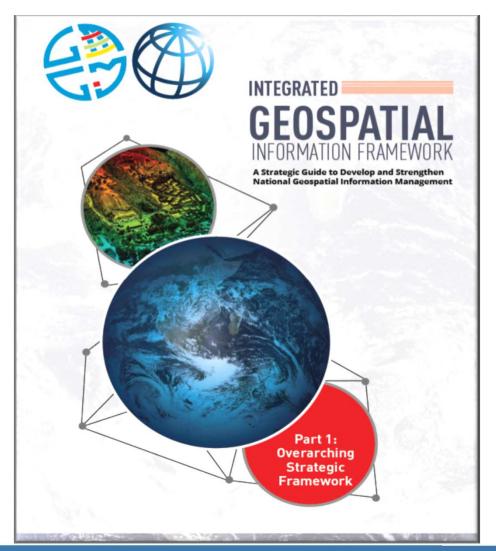
Better and more relevant geospatial data is providing new information and knowledge about a range of sectors, increasing the potential, value and productivity of the data...and the record of evidence.







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





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



-ramework **Overarching** mplementation Guide **Implementation Country-level** Nationa Geospatia National (or sub-national Strategic Guide **Action Plans Framework** Integrated nformation What? How, when, who? Why? Part 1 Part 3 Part 2

The Integrated Geospatial Information Framework (IGIF) comprises 3 separate, but connected, documents. The Overarching Strategic Framework was completed and <u>adopted</u> 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.



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.



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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.

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.

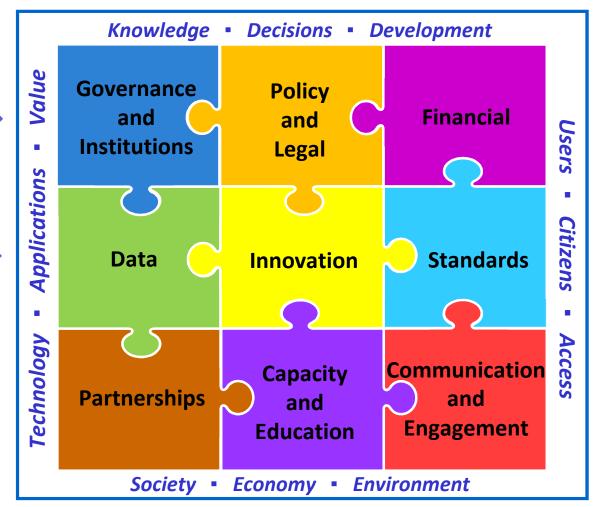


9 Strategic Pathways

Governance _____

Technology

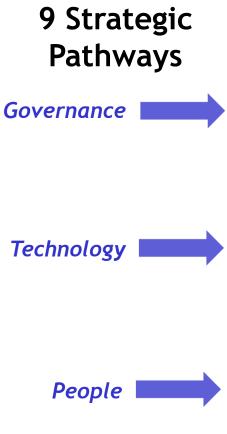
People |

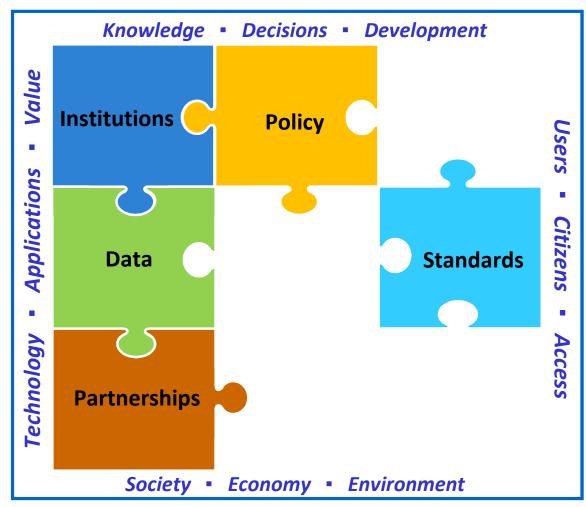




Anchored by 9
Strategic Pathways,
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Geodetic
Elevation
Water/Ocean
Land use/cover
Transport
Cadastre
Population
Infrastructure
Settlements
Admin. Bdys.
Imagery
Geology/soils
Observations
etc.

National Spatial

Data Infrastructure

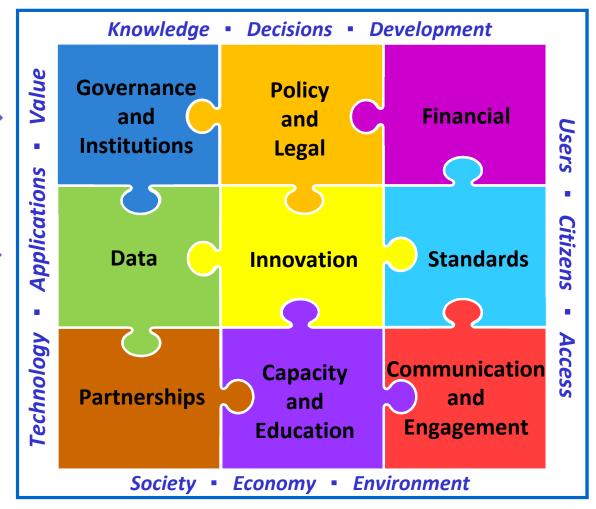
"The technology, policies, standards, human resources and related activities to acquire, process, distribute, use, maintain and preserve spatial data" (OMB 2002).

9 Strategic Pathways

Governance

Technology

People



Geodetic
Elevation
Water/Ocean
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Geology/soils
Observations
etc.

National Spatial Data Infrastructure

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



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.

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Summary

The 21st Century Challenge:

- We function in times of disruption: rapidly increasing amounts of data, enabling technologies and associated analytics. New roles are emerging.
- Opportunity to apply these to the benefit of national priorities and economic development more holistically.
- 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.
- Data aggregation and disaggregation: National local national.
- Communicate: Link up with other government agencies...and industry!!
- Future Proposition: Modern, agile, policy-oriented, collaborative, Integrated National Information Systems.



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.



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Thank You

