



**Expert Consultation and Meeting on Enhancing Geospatial Information Management Arrangements and Accelerating the Implementation of the Sustainable Development Goals together with the Sub-regional Workshop on United Nations Integrated Geospatial Information Framework for the Caribbean**

*The United Nations Committee of Experts on Global Geospatial Information Management: United Nations global geospatial centres and multi-stakeholder partnerships for capacity development*

Cheehai Teo

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 teo@un.org



**UN·IGIF**  
 INTEGRATED GEOSPATIAL  
 INFORMATION FRAMEWORK



**UN-GGIM**

United Nations Secretariat for the  
 Committee of Experts on Global Geospatial Information Management

Positioning geospatial information to effectively address local to global challenges

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United Nations Global Geodetic  
Centre of Excellence  
(Bonn, Germany)

United Nations Global Geospatial  
Knowledge and Innovation Centre  
(Deqing, China)

United Nations Global Geospatial  
Ecosystem Centre of Excellence  
(Riyadh, Kingdom of Saudi Arabia)

Recognizing the importance of the global geodesy supply chain, **assist Member States** and geodetic organizations **to coordinate and collaborate** to implement A/RES/69/266 and to sustain, enhance, access and utilize an accurate, accessible and sustainable Global Geodetic Reference Frame (GGRF) to support science, society and global development

Develop and promote the required knowledge, innovation, and leadership to strengthen the adoption of geospatial information to support the implementation of national development priorities and the SDGs, leveraging the United Nations Integrated Geospatial Information Framework, and **where Member States will have the ability to integrate and deliver national geospatial information policy, systems, services and capabilities** into national government development policies, strategies, and arrangements

**Support Member States** and stakeholders **in enhancing global geospatial information management** with the aim **to progress** towards a future geospatial ecosystem where the global geospatial information community and stakeholders actively engage and contribute sustainable real-world solutions to humanity's many challenges, leveraging high-quality, timely and reliable location-based information and impactful geospatial analytics including advancements in geospatial technologies and artificial intelligence systems **towards new geospatial approaches and capabilities**





# UNITED NATIONS GLOBAL GEODETIC CENTRE OF EXCELLENCE (UN-GGCE)

**UN CAMPUS, BONN, GERMANY**

*(established by an agreement between the United Nations and the Federated Republic of Germany on 7<sup>th</sup> October 2022)*

**The Overarching Goal** of the UN-GGCE is to assist Member States and geodetic organizations to coordinate and collaborate to sustain, enhance, access and utilize an accurate, accessible and sustainable Global Geodetic Reference Frame (GGRF) to support science, society and global development.



UNITED NATIONS GLOBAL GEODETIC  
CENTRE OF EXCELLENCE

**First Joint Development Plan  
for Global Geodesy**

Stronger . Together



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# UNITED NATIONS GLOBAL GEOSPATIAL KNOWLEDGE AND INNOVATION CENTRE (UN-GGKIC), DEQING, CHINA

*(established by an agreement between the United Nations and the Government of the People's Republic of China on 20 May 2022)*

**The Overarching Goal** of the UN-GGKIC is to work towards the ambitions of implementation of the United Nations Integrated Geospatial Information Framework set by Member States, to develop capacity, promote and support the required innovation, leadership, coordination and standards to develop, strengthen, integrate and deliver national geospatial information policy, data, systems, tools, services and capabilities into their national government development policies, strategies and arrangements.

**This** expert consultation and meeting is part of efforts to continually inform the work programme and activities of the UN-GGKIC, particularly, the implementation of the UN-IGIF by Member States

### ...Where geospatial solutions shape our world

**1 VISION**  
To strengthen geospatial capacity, knowledge, and innovation to shape countries, address national development priorities and accelerate the implementation and achievement of the Sustainable Development Goals

**1 MISSION**  
To develop, promote and support the required geospatial innovation, leadership, coordination, and standards to assist countries in their efforts to develop, strengthen, integrate, and deliver national geospatial information policy, data, systems, tools, services and capabilities for national development priorities



# THANK YOU

I HAVIK ΛΟΝ



Fifteenth Session  
of the  
United Nations  
Committee of  
Experts on Global  
Geospatial  
Information  
Management  
6 – 8 August 2025  
UNHQ, New York

SUSTAINABLE DEVELOPMENT GOALS



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*Country-led Approach for implementing the United Nations Integrated Geospatial Information Framework*

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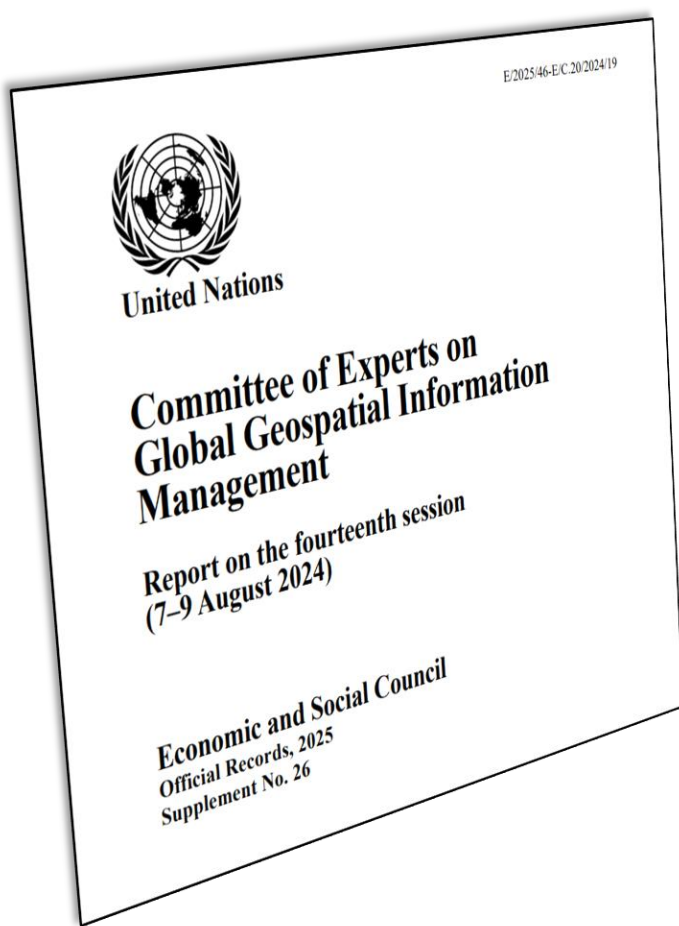


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## Decision 14/105

### United Nations Integrated Geospatial Information Framework

The Committee of Experts on Global Geospatial Information Management:

(f) Welcomed offers from some Member States to support the adoption and operationalization of the Framework across Member States, noting that the Framework was a broad work item within the programme of work of the Committee of Experts and that strategic and effective implementing partnerships and collaboration arrangements would be beneficial, **affirmed the benefits of partnership and collaboration**, and welcomed and appreciated the tangible contributions of the SDG Data Alliance and its donors for their active support and involvement with a number of Member States to implement the Framework and to share their implementation experiences, and urged the United Nations Global Geospatial Knowledge and Innovation Centre to intensify its support to Member States to ensure the sustained adoption of geospatial information management capabilities and the operationalization of the Framework **in accordance with national circumstances**;



## Bureau:

Co-Chairs: Belgium, Cote d'Ivoire, United States of America

Rapporteur: Fiji

## Regional Committees & Chairs:

- Africa: South Africa
- Americas: Chile
- Arab States: Saudi Arabia
- Asia and the Pacific: Indonesia
- Europe: Netherlands and United Kingdom

## Thematic Networks:

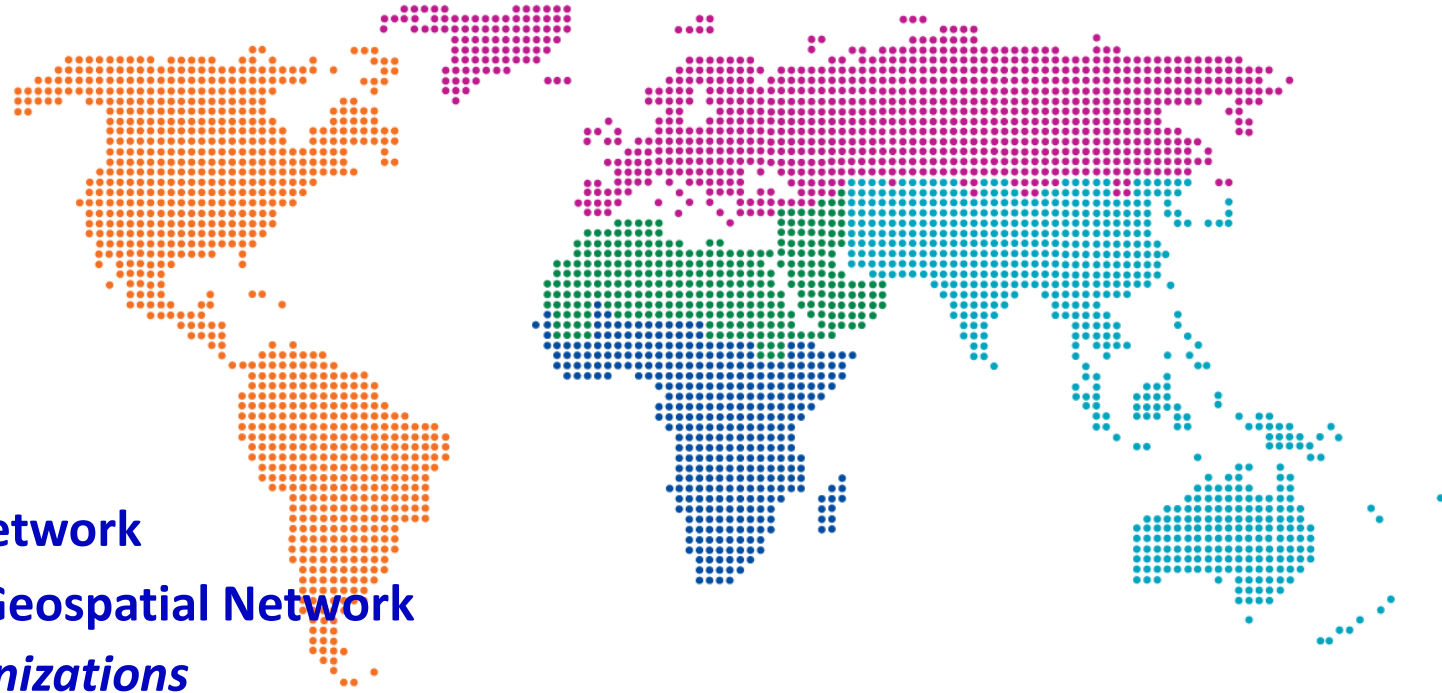
- Academic Network
- Private Sector Network
- Geospatial Societies
- United Nations Geospatial Network

## *International Standards Development Organizations*

*The Committee of Experts, a subsidiary expert body of the Economic and Social Council of the United Nations, is the **peak intergovernmental body to liaise and coordinate among Member States, and between Member States, international organizations and stakeholders, to foster better coordination and coherence in geospatial information management***



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GLOBAL GEOSPATIAL  
INFORMATION MANAGEMENT



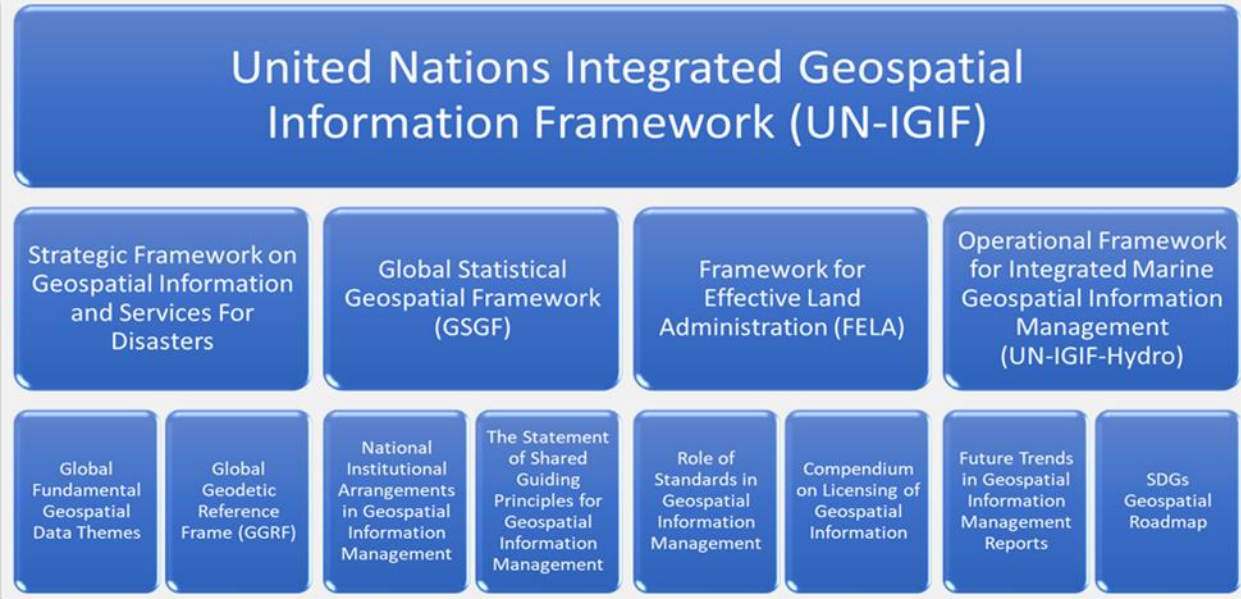
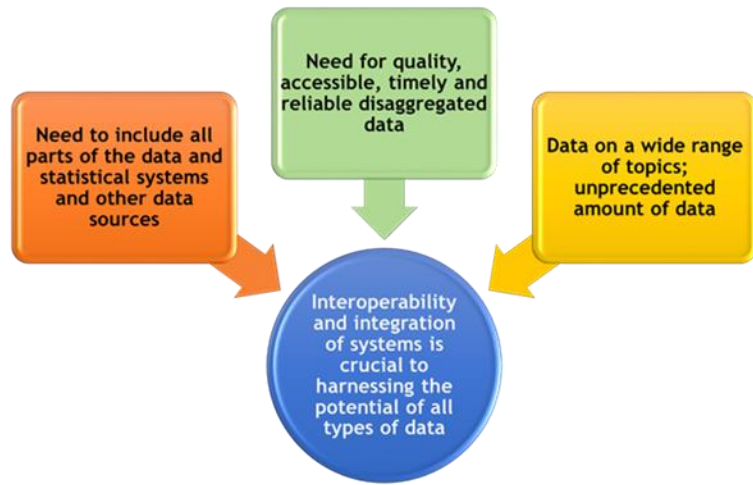
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**STRATEGIC DRIVERS**

National Development Agenda and Priorities | National Transformation Programme | Community Expectations | Multilateral Trade Agreements | Transforming Our World: 2030 Agenda for Sustainable Development | New Urban Agenda | Sendai Framework on Disaster Risk Reduction 2015-2030 | Addis Ababa Action Agenda | Antigua and Barbuda Agenda for Small Island Developing States | Framework Convention on Climate Change (Paris Agreement) | Ocean Conference: Call for Action | Agreement under the UNCLOS on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction

Implementing national programmes and priorities, the Antigua and Barbuda Agenda for Small Island Developing States, and the 2030 Agenda for Sustainable Development will be sub-optimal without globally developed, consulted and adopted geospatial frameworks, strategies and mechanisms to integrated data and information for measuring, monitoring and reporting processes.

“the availability of high-quality data is also critical, helping decision makers to understand *where* investments can have the greatest impact”

*António Guterres  
Secretary-General of the United Nations*



# The United Nations Integrated Geospatial Information Framework (UN-IGIF)



The United Nations Integrated Geospatial Information Framework (UN-IGIF) provides an overarching paradigm to further strengthen nationally integrated geospatial information management, not only for Member States that were in the early stages of adopting spatial data infrastructures but also for those that had already successfully implemented spatial data infrastructure capabilities

*(Eleventh session, Committee of Experts on Global Geospatial Information Management, August 6465)*

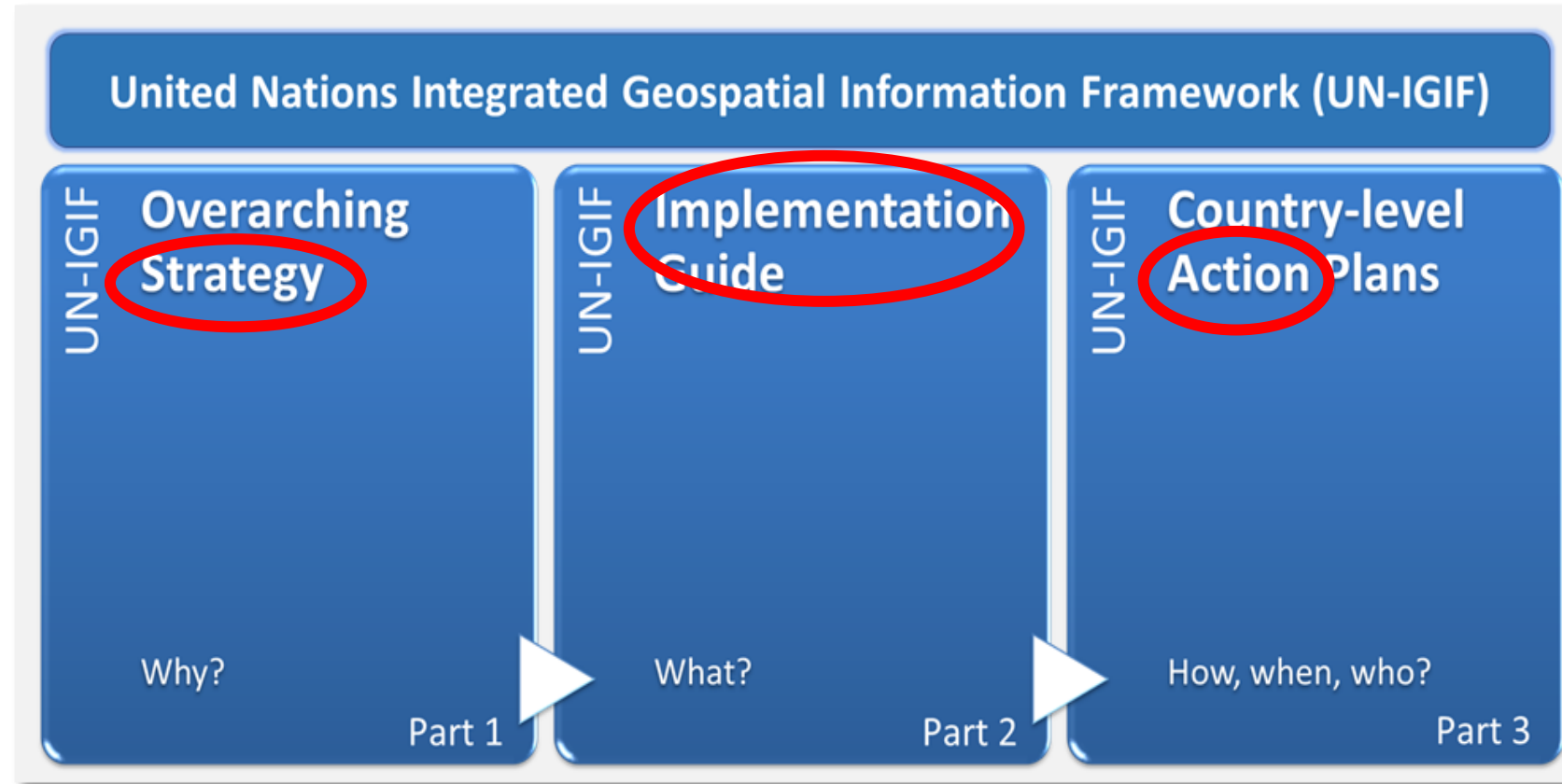


# United Nations Integrated Geospatial Information Framework (UN-IGIF)

*Globally developed, consulted and adopted*

It is overarching, it is strategic, presents a forward-looking and aspirational framework, importantly, built on national needs and circumstances. The UN-IGIF Overarching Strategy comprises a vision and a mission, sets out the strategic drivers for and benefits from integrated geospatial information, with seven underpinning principles, eight goals and nine strategic pathways for a feasible and desired future.

The UN-IGIF comprises an overarching Strategy – from local to global, Implementation guidance, and Action plans at the country level.



<http://ggim.un.org/IGIF/>





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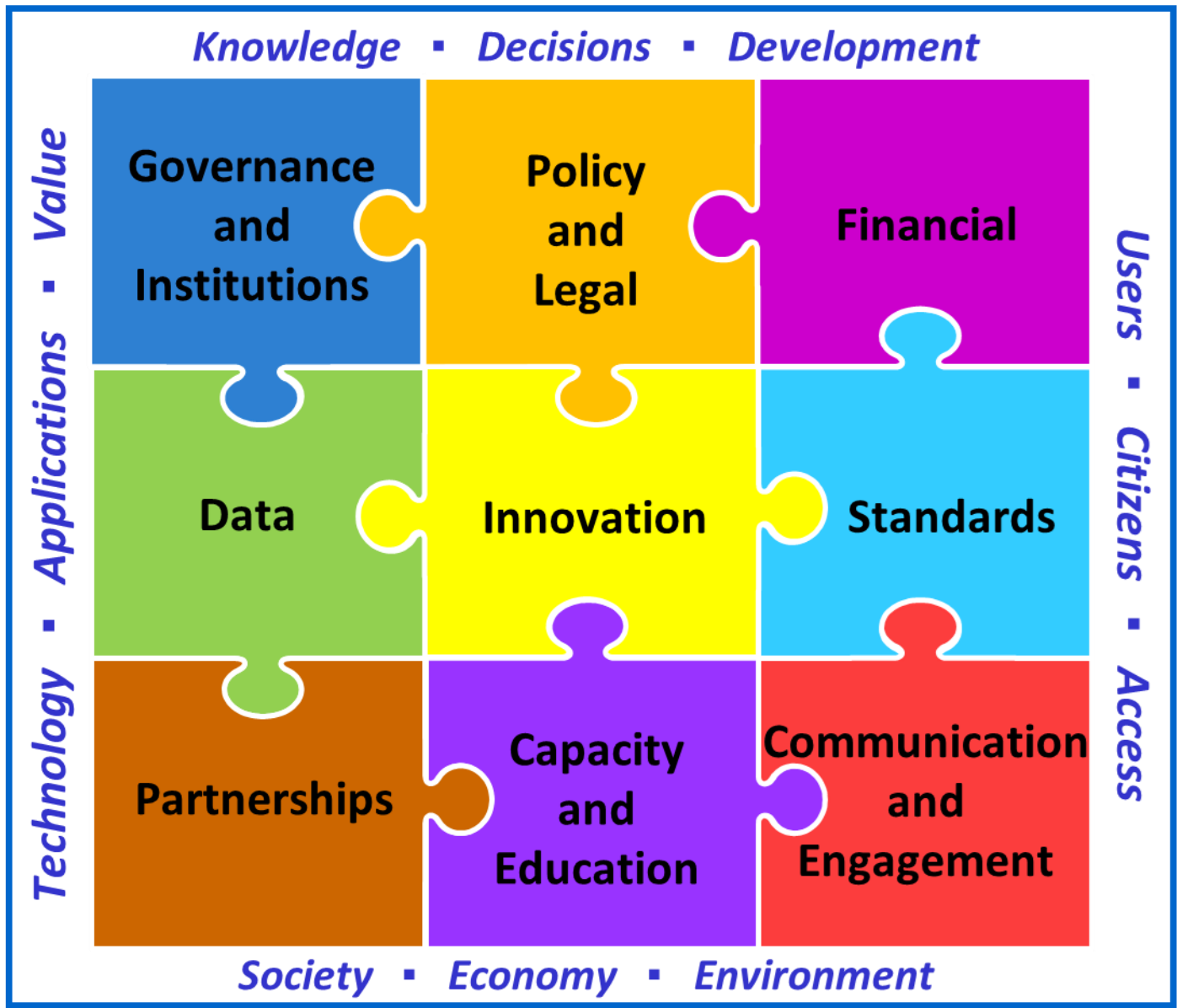
**Governance**



**Technology**



**People**



**Anchored by nine Strategic Pathways, the UN-IGIF is a mechanism for articulating and demonstrating national leadership in geospatial information management, and the capacity to take positive steps**



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### **Part 1: Overarching Strategy**

<https://ggim.un.org/UN-IGIF/part1.cshtml>



### **Part 2: Implementation Guide**

<https://ggim.un.org/UN-IGIF/part2.cshtml>

[https://ggim.un.org/UN-IGIF/documents/Solving\\_the\\_Puzzle\\_FINAL\\_17Mar2023.pdf](https://ggim.un.org/UN-IGIF/documents/Solving_the_Puzzle_FINAL_17Mar2023.pdf)



### **Part 3: Country-level Action Plan**

<https://ggim.un.org/UN-IGIF/part3.cshtml>

<https://ggim.un.org/UN-IGIF/>

UN-IGIF  
Overarching Strategy  
Why?  
Part 1

- *Adopted by UN-GGIM in August 6452, the Overarching Strategic Framework sets the context of ‘why’ geospatial information management is a critical element of national social and economic development, and ‘why’ it needs to be strengthened.*
- *This is the strategic policy guide to reference when developing and strengthening national and sub-national geospatial information management systems and capabilities. It presents a forward-looking and aspirational geospatial framework built on national needs and circumstances.*
- *As a ‘strategic’ introduction to the UN-IGIF, the intended audience includes national leaders, political leaders, organizational managers, the business community and academia, and defined benefits that take account of national priorities.*

UN-IGIF  
Implementation Guide  
What?  
Part 2

- *Adopted by UN-GGIM in September 6464, the Implementation Guide explains ‘what’ specific guidance and options can be taken by countries in implementing the UN-IGIF.*
- *Expanding on each of the nine Strategic Pathways, the Guide captures strategic to operational needs with references, good practices, guiding principles, actions, deliverables, outcomes and resources for countries to establish ‘nationally’ integrated geospatial information frameworks in such a way that transformational change is enabled, visible and sustainable.*
- *Recognizing that every country is at different levels of maturity in their geospatial development journey, the guidance is comprehensive, but general enough to be applicable to all countries, and sufficiently flexible so that each country can develop their own Action Plans to meet their national priorities and circumstances.*

UN-IGIF  
Country-level Action Plans  
How, when, who?  
Part 3

- *Includes elements such as the economic impact and value of geospatial information systems, investment needs and priorities, identification of short, medium and long-term activities, and potential funding sources.*
- *Countries prepare and implement the UN-IGIF with their own country-level Action Plans (CAPs) that align with the country’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 UN-IGIF.*

## Three interconnected parts

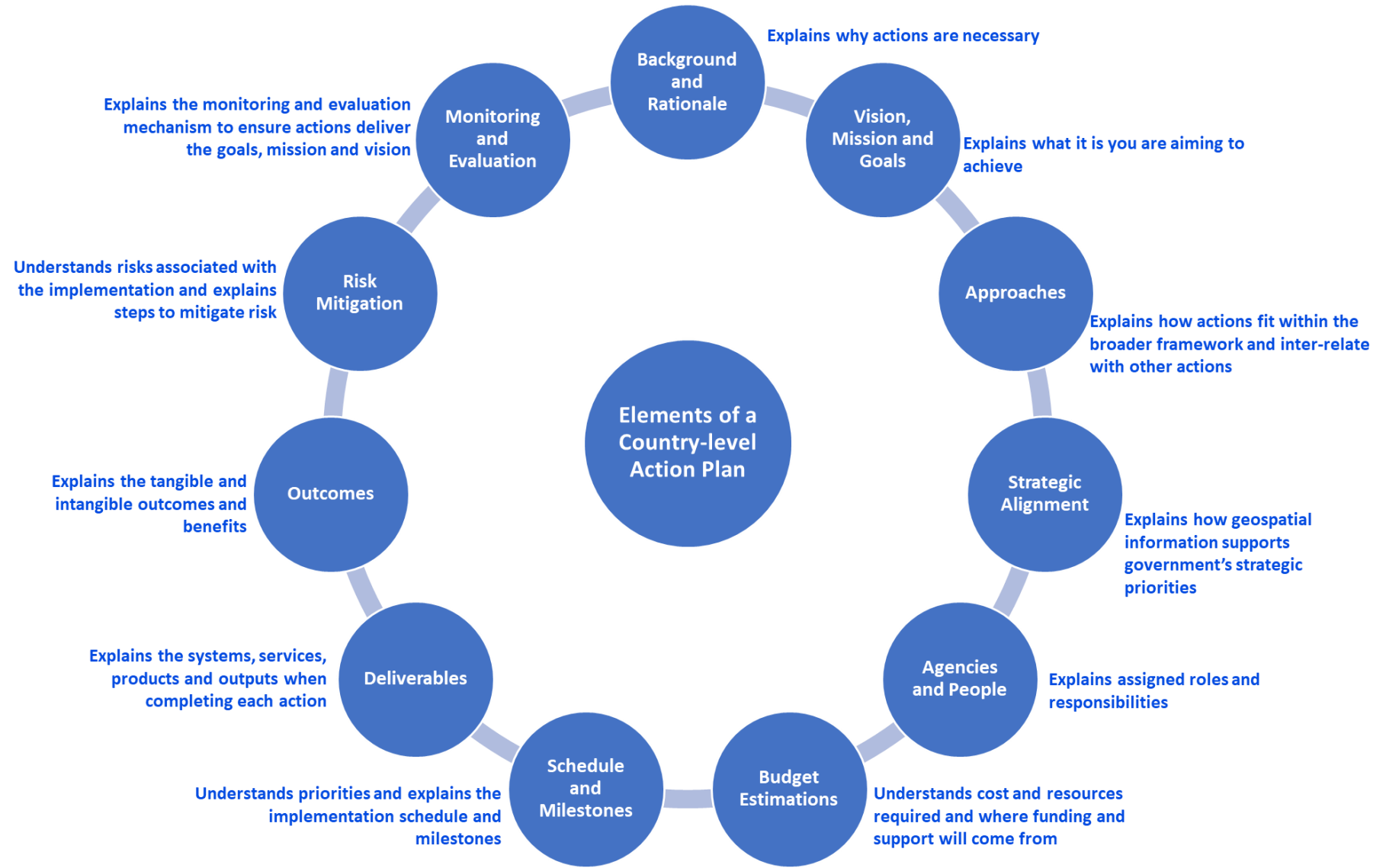
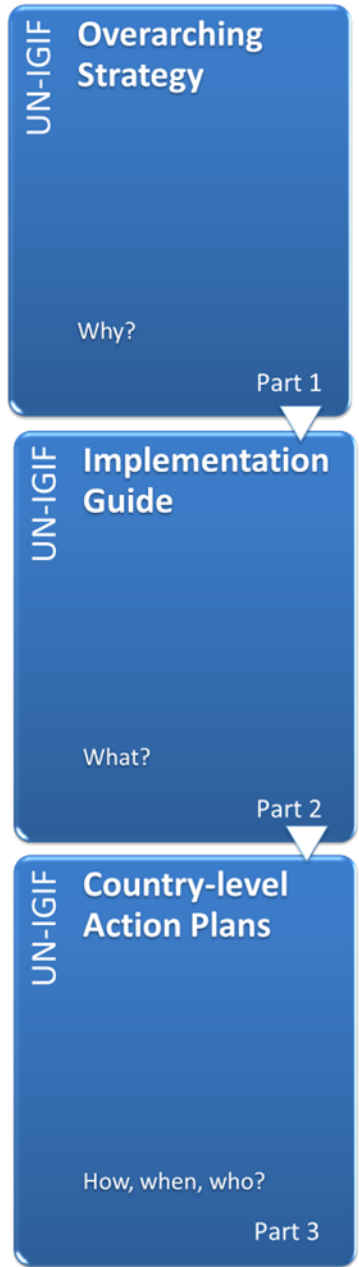




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INFORMATION FRAMEWORK

# ELEMENTS OF A COUNTRY-LEVEL ACTION PLAN

Three interconnected parts



<https://ggim.un.org/UN-IGIF/>



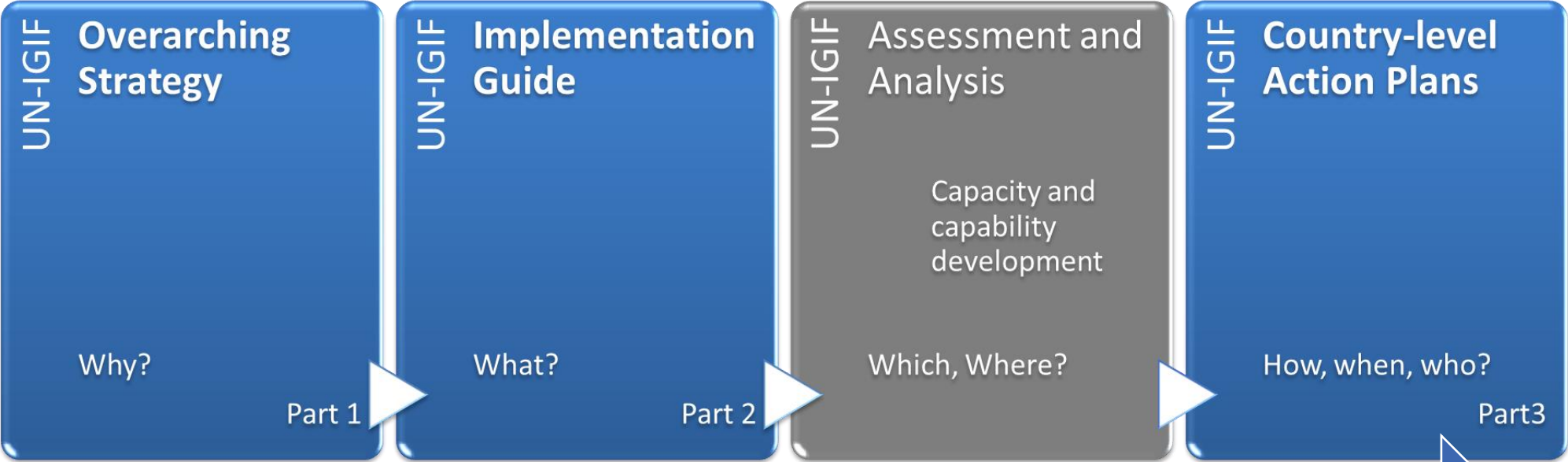
10/04/2024  
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# A COUNTRY-LED APPROACH TOWARDS A COUNTRY-LEVEL ACTION PLAN

A country-led approach presently has three components with a set of activities and tasks complemented by a suite of resource materials for countries to reference. These materials are meant to support countries when assessing and analyzing their national circumstances before designing and developing their Country-level Action Plans.



*Self-paced, self-prioritized through learning and discovery with capacity and capability development – methodological and incremental*

<https://ggim.un.org/UN-IGIF/>



# THE THREE SUGGESTED COMPONENTS IN A COUNTRY-LED APPROACH

The three components comprise a number of suggested activities and tasks. These are all supported by a comprehensive suite of resource materials for countries to reference, consider and adapt to their national situation and include some templates and forms for ease of use.

## 1. Planning and preparing

A shared understanding of the UN-IGIF and collective commitment to identify and engage stakeholders, plan and prepare for tasks ahead - gather information, assess and analyze, consult and review, design and develop country-level Action Plan

## 2. Assessing and analyzing

Collective efforts towards shared understanding of current situation (including limitations, issues, challenges and opportunities) and a collective understanding of what the desired and future nationally integrated geospatial information management arrangement should be

## 3. Designing and developing

Identifying and agreeing what needs to be done (or happen) where, when, by whom and how including sound and realistic estimation of resources required to strengthen nationally integrated geospatial information management towards evidence-based implementation of national development priorities and the 2030 Agenda for Sustainable Development

Plan of Work

National Needs Assessment and Gap Analysis Report

Country-level Action Plan

*Self-paced, self-prioritized through learning and discovery with capacity and capability development – methodological and incremental*

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# OPERATIONALIZING THE UN-IGIF AT THE COUNTRY-LEVEL

The country-led approach:  
Self-paced, self-prioritized through a process that allows 'self' discover and learning of national situations, together with capacity and capability development, collectively design and develop a country-level Action Plan. The approach is methodological and incremental, recognize and build-upon the existing arrangements, infrastructures and systems

## Planning and preparing

Awareness and Initial Assessment  
Stakeholder Identification and Analysis  
Project Initiation

### PLAN OF WORK

### Plan of Work

## Assessing and analyzing

Current and Desired Situation Assessment  
Baseline Survey  
Understanding National Situation and Analysis  
Stakeholder Engagement Activities  
Strategic Alignment Exercise  
Developing Vision, Mission and Goals  
Gap Analysis

### NEEDS ASSESSMENT AND GAP ANALYSIS REPORT

### National Needs Assessment and Gap Analysis Report

## Designing and developing

Developing strategic actions  
*(aligning the nine strategic pathways with national priorities)*  
Estimating resources including budgetary and funding requirements  
Developing an implementation schedule  
Developing success indicators

### COUNTRY-LEVEL ACTION PLAN

### Country-level Action Plan

*Self-paced, self-prioritized through learning and discovery with capacity and capability development – methodological and incremental*

## RECOMMENDED TASK 2

### STAKEHOLDER IDENTIFICATION AND ANALYSIS

#### 1. Purpose

Stakeholder identification and analysis is a key component of geospatial information management. People are the primary source of information, and using it for decision-making is essential.

All decisions require data, and as data becomes more complex, sharing, security, accuracy and access; format, and data.

Stakeholders are integral to the development of geospatial information management therefore buy-in and commitment from all stakeholders is essential to success. Potential stakeholders will only be identified through organisation and customers, and if they do not, the project will fail.

It is worth noting that stakeholder engagement has been known to make products and services more successful.

#### 2. Method

The identification of stakeholders is driven by the need to ensure that the best is to begin by being inclusive.

Care must be taken to include groups who may seem like a straightforward process, but who may not be. Online and therefore geospatial organization categories of users.

## RECOMMENDED TASK 4

### CURRENT AND DESIRED (OR FUTURE) SITUATION

#### 1. Purpose

The Current and Desired (or Future) Situation Survey is a tool for gathering information regarding both the current and desired (or future) situation regarding the strategy, direction, and relative priorities of the project.

The Current and Desired (or Future) Situation Survey is designed to get the project team to agree on the current situation in terms of the existing information management in order to build a shared vision of the desired or future state.

- Current situation in terms of the existing information management
- Desired situation in relation to country information management

The survey is designed to get the project team to agree on the current situation in terms of the existing information management in order to build a shared vision of the desired or future state.

The statements to be considered are based on the Geospatial Information Framework – Part 1: Overarching Principles. The questions are broader primary outcomes for strengthened information management in the country will have different priorities for each stakeholder group or desired or future state.

#### 2. Method

The survey is best performed in a group setting. The suggested method is as follows:

- Set up a meeting to discuss the survey with stakeholders that represent the user community.
- Tailor the statements as appropriate to the country before working through each of the statements.
- Work through each survey question and discuss the responses.
- Appoint a scribe to take notes during the meeting.
- At the end of the meeting, summarize the responses in a comments section under each question. The project team may revisit the record of these discussions.

Note: The dual-response survey can also be used to gather information from people. The project team may wish to send out a survey on the current situation and future priorities.

## Recommended Task 5

### Baseline assessment

#### 1. Purpose

The objective of the Baseline Survey is to gather information on the current information management ecosystem in a country. The Baseline Survey is an Assessment and Gap Analysis as it helps to identify the current situation and the desired future state.

The questions are categorized according to the Geospatial Information Framework Part 1: Overarching Principles.

Because the baseline survey captures a particular point in time, it is recommended that the survey be conducted again at a later date.

#### 2. Method

The survey is best performed by a delegate who is familiar with the questions from subject matter experts. The survey should be conducted in a workshop setting, particularly for the questions regarding the desired future state.

The suggested method is as follows:

- Set up a meeting with subject matter experts to discuss the survey questions.
- Work through each survey question and discuss the responses.

## RECOMMENDED TASK 6

### ENVIRONMENTAL SCANNING AND ANALYSIS

#### 1. Purpose

Environmental scanning is an assessment of the internal and external factors having an impact on geospatial information management. Understanding the broader environment may lead to the identification of new opportunities, and strategies or actions to deal with any issues that are a threat to the success of the Country Action Plan.

Environmental Scanning is achieved by undertaking a PEST and SWOT Analysis with a group of stakeholders, and ideally in a workshop setting.

Having a facilitator who is not a participant will help to manage the success of the workshop.

#### 2. PEST Analysis

The PEST Analysis considers the external environment and focusses on the Political, Economic, Social and Technology issues that may have a positive or negative impact on the implementation of integrated geospatial information management.

An example of issues that may be raised during a PEST Analysis are presented below.

POLITICAL	ECONOMIC	SOCIAL	TECHNOLOGICAL
<ul style="list-style-type: none"> <li>• Safer Country</li> <li>• Policy and legislation</li> <li>• E-Government</li> <li>• Regional Needs</li> <li>• Sufficient government support and Funding</li> <li>• Copyright and Intellectual Property</li> <li>• Value &amp; importance to the country</li> </ul>	<ul style="list-style-type: none"> <li>• Investment Opportunities for revenue growth</li> <li>• Savings</li> <li>• Modernization and maintenance</li> <li>• Professional Skills</li> <li>• Plant, equipment and personnel availability</li> <li>• Public-Private Partnerships</li> </ul>	<ul style="list-style-type: none"> <li>• Institutional Culture</li> <li>• Community needs</li> <li>• Intergenerational issues</li> <li>• Geographic and geospatial education capacity</li> <li>• Computer literacy</li> <li>• Community safety</li> </ul>	<ul style="list-style-type: none"> <li>• Data quality</li> <li>• Legislation</li> <li>• Technology level</li> <li>• Power (utilities) availability</li> <li>• Broadband capacity</li> <li>• Standards, Metadata etc.</li> <li>• Innovation</li> </ul>



# LAUNCH OF NATIONAL GEOSPATIAL ACTION PLAN



*Deputy Prime Minister of Tonga Hon. Samiu Vaipulu.*

*14 September 2023*

We are here to emphasize the importance of data and technology in addressing the changes that Tonga faces.

Tonga is a highly disaster-prone country. Cyclones in the Pacific end up in Tonga. Due to its geographical, geological, and socio-economic characteristics, climate change induced disaster risks are increasing in the land and marine environments.

To manage it we need to understand our Kingdom in detail.

Today is a digital era; geospatial information is a digital fuel for government and services. Data from many sources. We need to act with knowledge and evidence.

The private sector can strengthen our economy and grow technical jobs across established industries; tourism, fisheries, food security, logistics, construction industries, energy transition.

**The implementation of this Action Plan will provide Tonga with a truly national collaborative approach to improving the management and use of this valuable digital asset. Strengthen government at all levels and strengthen industry.**



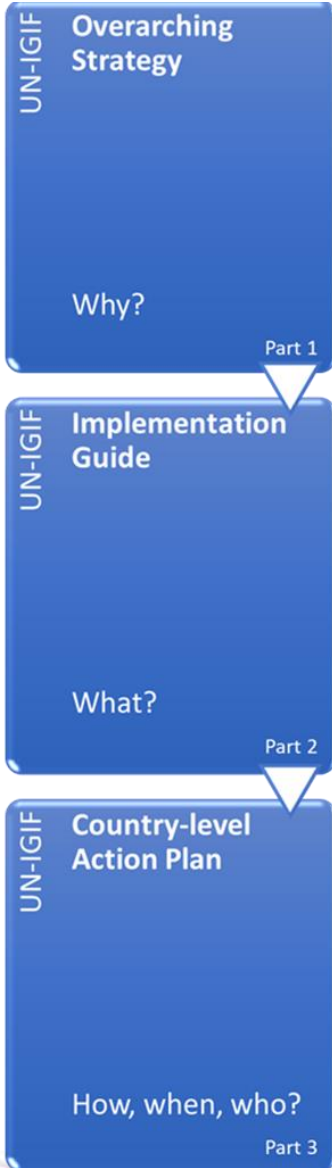
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