ADB-LX Corp Joint Workshop on Building National Spatial Data Infrastructure

INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK (UN-IGIF) AND NSDI

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Content of presentation

Concentration on few main topics as:

1. Integrated Geospatial Information Framework (IGIF)
2. IGIF Diagnostic Tool
3. Some lessons and issues

Integrated Geospatial Information Framework

The Committee of Experts on Global Geospatial Information Management (UN-GGIM) at its tenth session adopted the Implementation Guide of the United Nations Integrated Geospatial Information Framework (UN-IGIF)

The UN-IGIF was originally developed as a collaboration between the **United Nations and the World Bank** as a guide for lower to middle income countries to reference when developing and strengthening their national and sub-national geospatial information management and related infrastructures but with the time evolved in the many of other countries are benefiting from the Framework.

The UN-IGIF provides a basis and guide for developing, integrating, strengthening and maximizing geospatial information management and related resources in all countries

A little bit of a history -1

- July 2011 - established the UN Committee UN-GGIM (ECOSOC Resolution 2011/24) as the official UN consultative mechanism on global geospatial information management.
- 27 July 2016, following a year-long consultative process, ECOSOC adopted a resolution (2016/27) entitled "Strengthening institutional arrangements on geospatial information management"
- August 2017 the United Nations Statistics Division (UNSD) and the World Bank agreed to collaborate on creating and strengthening geospatial information capacity and development
- August 2018, UN-GGIM session report with the WB assistance, and their efforts to develop the Integrated Geospatial Information Framework (IGIF) as an overarching strategic policy guide for countries

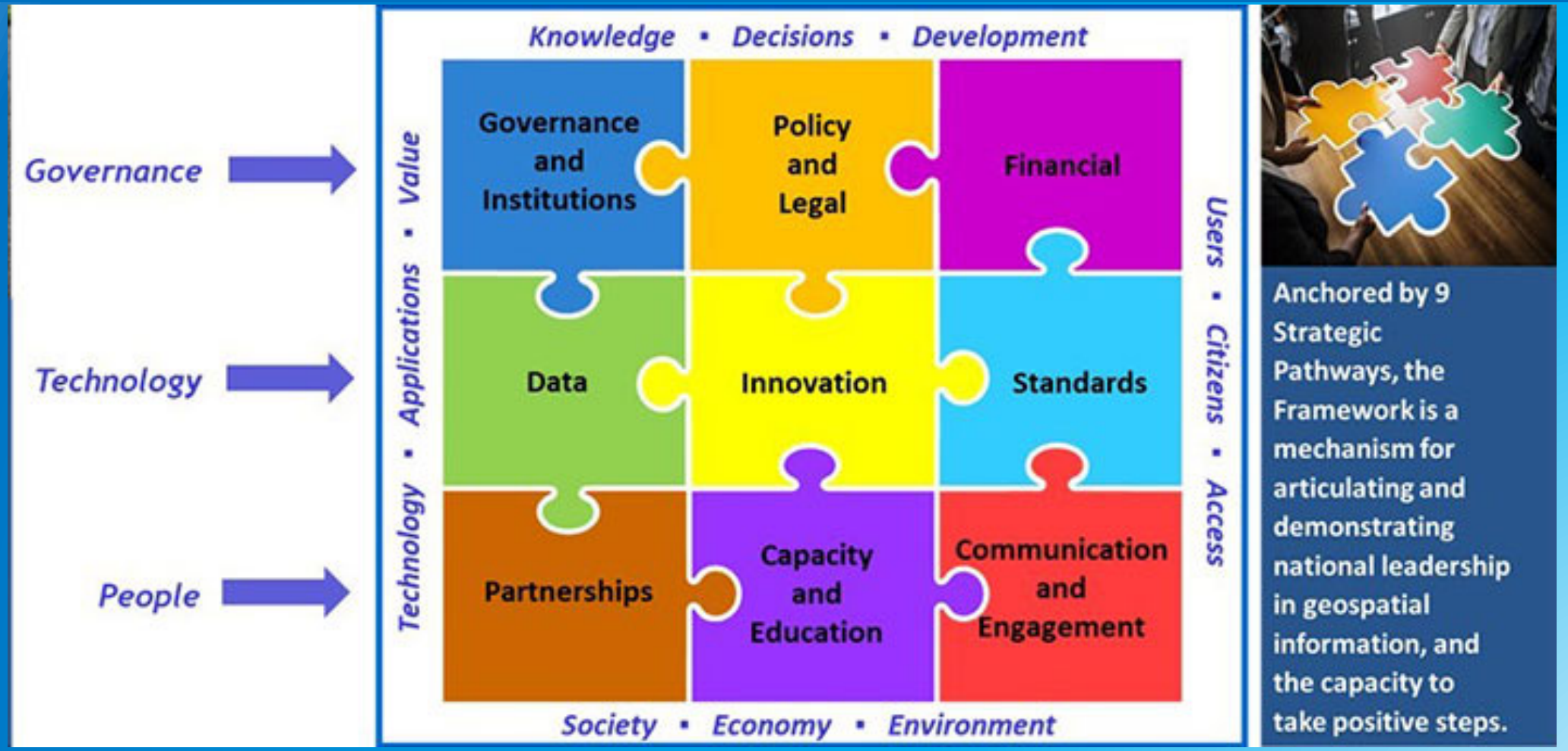
A little bit of a history - 2

- A number of consultations in the period October 2018 to February 2020 – formal participation and representation from 133 Member States
- The **Geospatial World** agreed to collaborate towards "**Advancing the Role of Geospatial Knowledge Infrastructure (GKI) in World Economy, Society and Environment**" as a means to demonstrate the true value of global geospatial knowledge, the **data ecosystem**, public-private partnerships, and the contribution to the global development Agendas
- The UN-GGIM at its tenth session (on 26-27 August and 4 September 2020) adopted the **"Implementation Guide of the United Nations Integrated Geospatial Information Framework".**
- The UN-IGIF is an **overarching strategic policy guide** for countries to reference.

UN-IGIF Principal areas of influence

1. **Governance -** is essential to achieving any nationally integrated geospatial information management capability. It includes the institutional arrangements, policy and legal requirements, and financial concerns that need to be factored into any sustainable geospatial information program or project.
2. **Technology -** influences geospatial location data, innovations, the required standards, and what can be achieved with the emerging geospatial data ecosystem that is able to respond to continually evolving needs, demands, and uses.
3. **The People aspect** - the most important component, as it is the people who are the Framework enablers – performing all the tasks needed for a successful UN-IGIF – often through partnerships and in collaboration with others. Having the necessary skills and knowledge is crucial to success, requiring capacity and education programs, and ongoing communication and engagement.

Integrated Geospatial Information Framework



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.

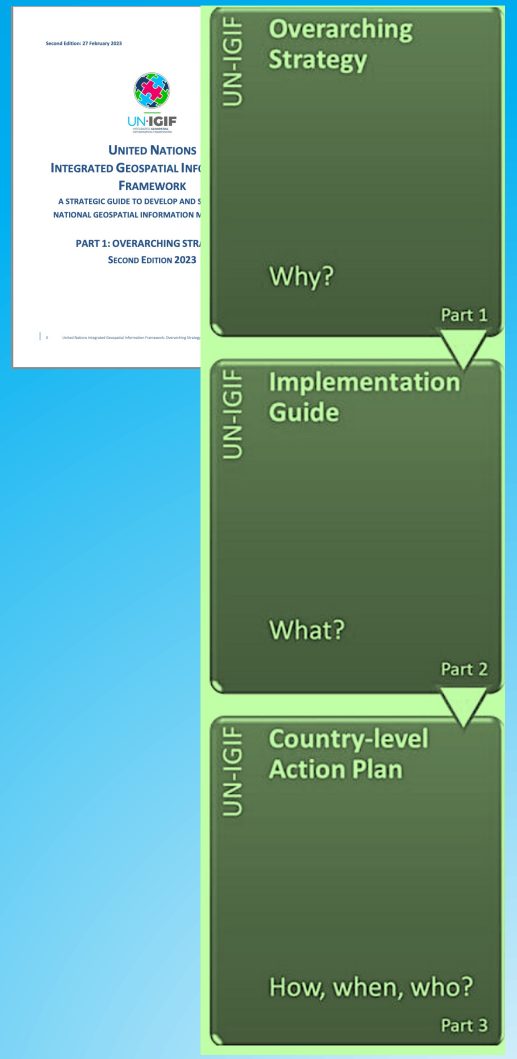
Source: https://ggim.un.org/UN-IGIF/overview/

Importantly, the IGIF <u>is not</u> an infrastructure. It is a standalone 'framework', independent of SDIs, NSDIs etc.

UN-IGIF integral parts

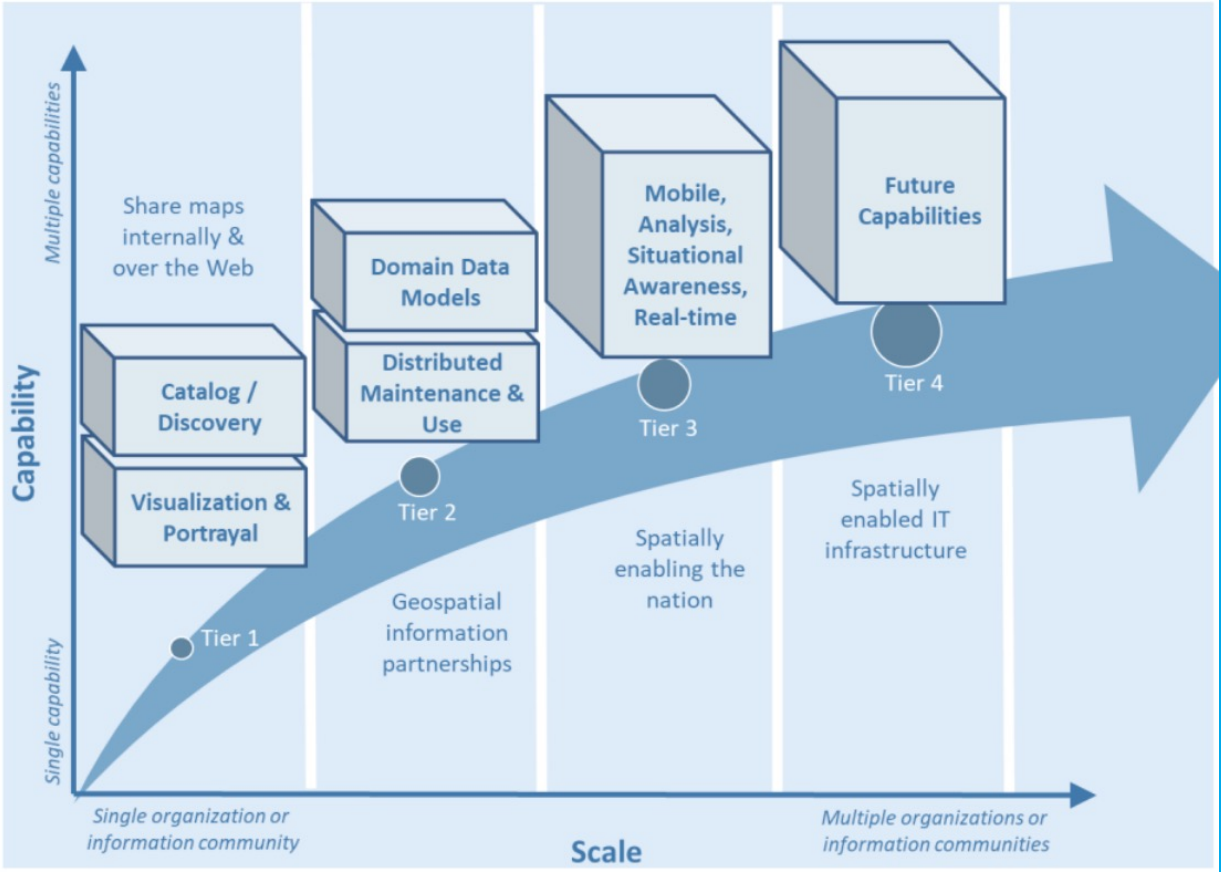
The UN-IGIF comprises three separate parts, as connected, documents:

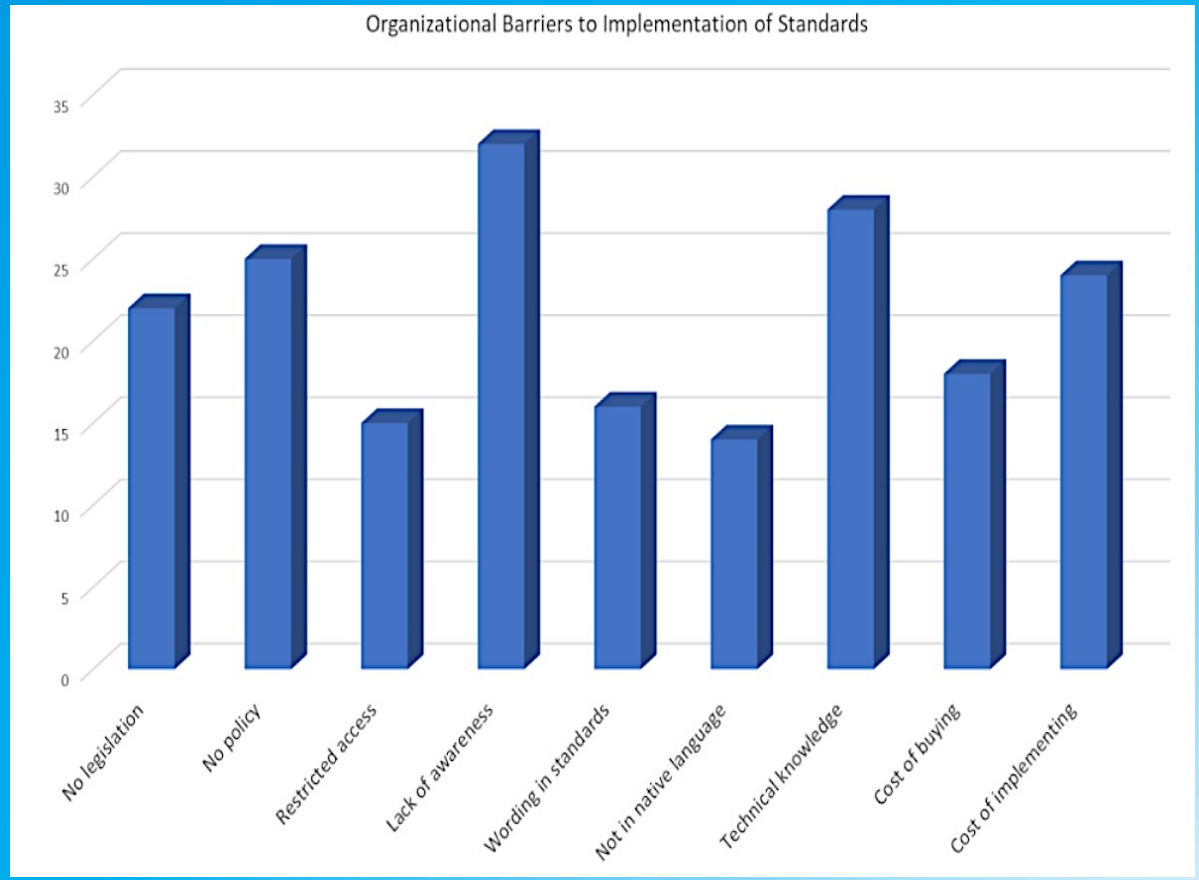
- **Part 1 - Overarching Strategy** (sets the context of **'why'** geospatial information management needs to be strengthened and why it is a critical element of national social, economic and environmental development.)
- **Part 2 - Implementation Guide for each of 9 strategic pathways** (describes **'what'** actions can be undertaken to strengthen geospatial information management and it reference resource that provides information for governments to design, plan, establish, implement and maintain nationally integrated geospatial information frameworks in their country in such a way that transformational change is enabled, visible and sustainable)
- **Part 3 - Country-level Action Plan includes 13 tasks** (details **'how'** the guiding principles, options, and actions specified in the Implementation Guide will be carried out, when and by whom and provides templates to use).



UN-IGIF Implementation Guide – SP6 - Standards

Levels of Standards





Reference – UN-IGIF – Part 2, Implementation Guide -pathway 6 Standards

UN-IGIF Implementation Guide – SP7 - Partnership

- **Data partnerships** - for enhancing the collection or harvesting, updating, integration, storage, and maintenance of existing or new datasets;
- **Capacity development** - to develop competencies and skills and enable knowledge transfer;
- **Technology and system integration** - to pool technological resources, develop geospatial data analytics capabilities, improve access to data and acquire high-end software otherwise not available;
- **Advisory and governance** - to develop the policy, standards and norms necessary for strengthening geospatial information management capabilities; and
- **Research and innovation** - collaborative research projects with end-users (industry, enterprises, and public sector and non-government organizations) that address end users, environmental, economic and societal issues and promoting the 'best, highest and widest use' of geospatial information.

UN-IGIF Implementation Guide - Communication and Engagement

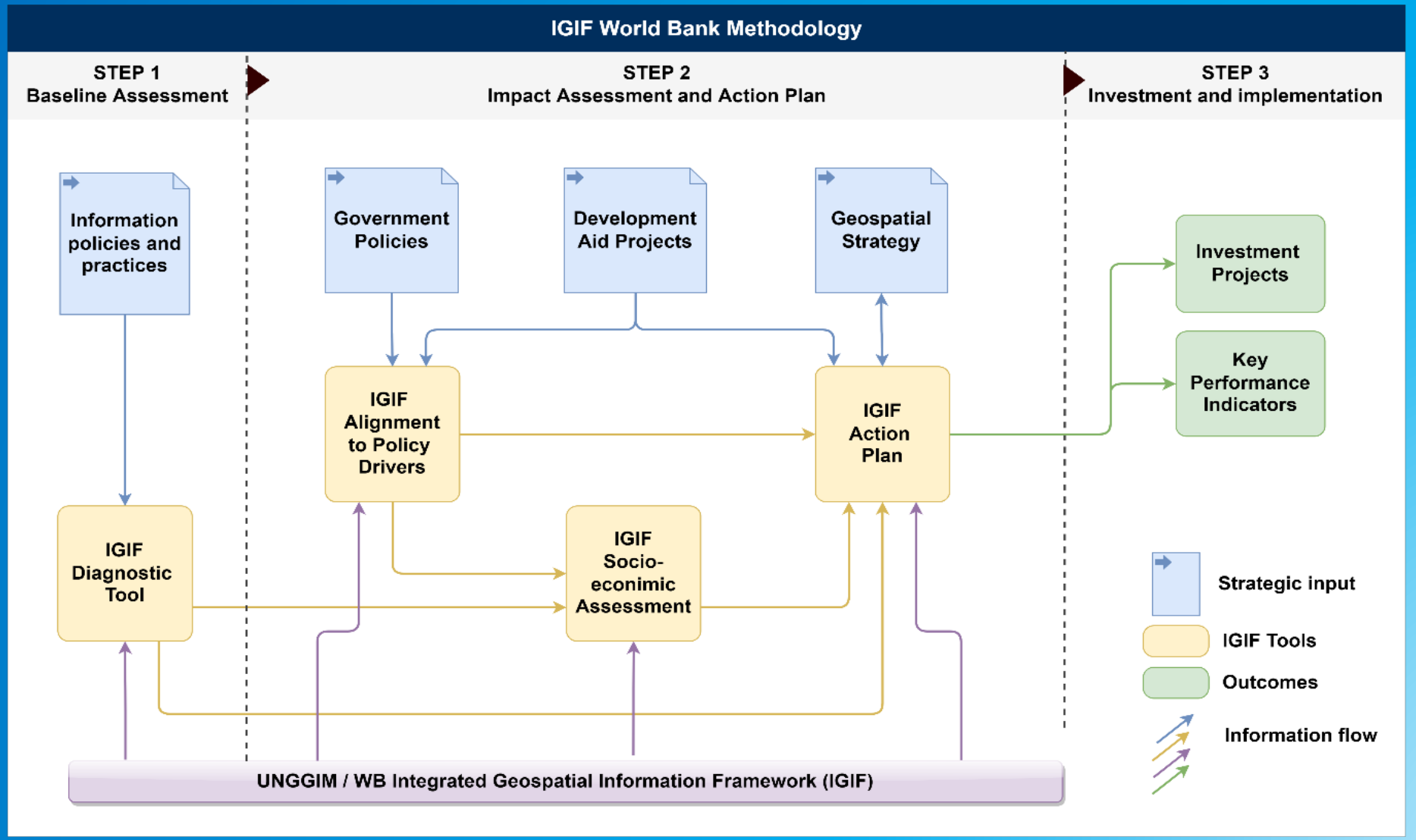
- **Stakeholder and User Engagement** - identifies and develops relationships and alliances with advocates, partners, users and third parties.
- **Communication and Strategic Messaging** - The aim is to gain understanding, engender initial buy-in and retain support during implementation through a consistent approach for effectively sharing and receiving information.
- **Strategy, Plans and Methods** – influence perceptions, advocate the significance of integrated geospatial information to grow its application.
- **Monitoring and Evaluation** - sets the performance measures to assess the effectiveness and efficiency of communication and engagement strategies, messages, plans and methods.

Elements, Approaches, Guidelines and Actions

- For example, implementing the strategic pathway '**Data**', requires four key elements to be implemented:
  i. priority data themes,
  ii. guidelines for custodianship, acquisition and management,
  iii. streamlined data supply chains, and
  iv. well-coordinated data curation/management and delivery mechanisms.
- For each of the nine pathways, a set of recommended approaches, guidelines and actions are identified and described.

Figure 4: The four key elements related to the strategic pathway of data (Source: UN-GGIM)

WB Methodology of the NSDI baseline assessment



UN-IGIF Diagnostic Tool (DT)

SP1: Governance and Institutions

10 Questions

SP2: Policy and Legal

10 Questions

SP3: Financial

7 Questions

SP4: Data

13 Questions

82 Questions

36 Topics

9 Pathways

9 Scores

SP5: Innovation

10 Questions

SP6: Standards

8 Questions

SP7: Partnership

8 Questions

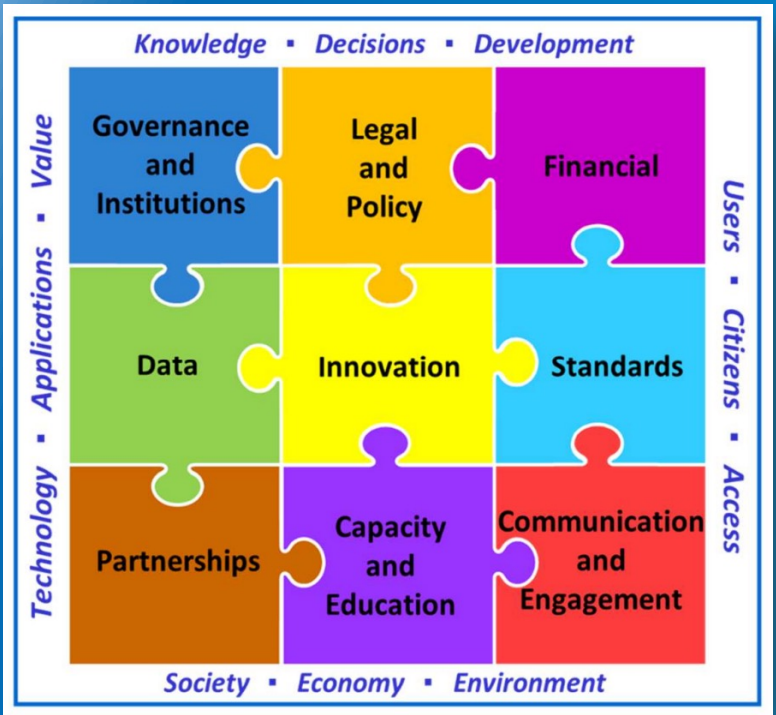
SP8: Capacity and Education

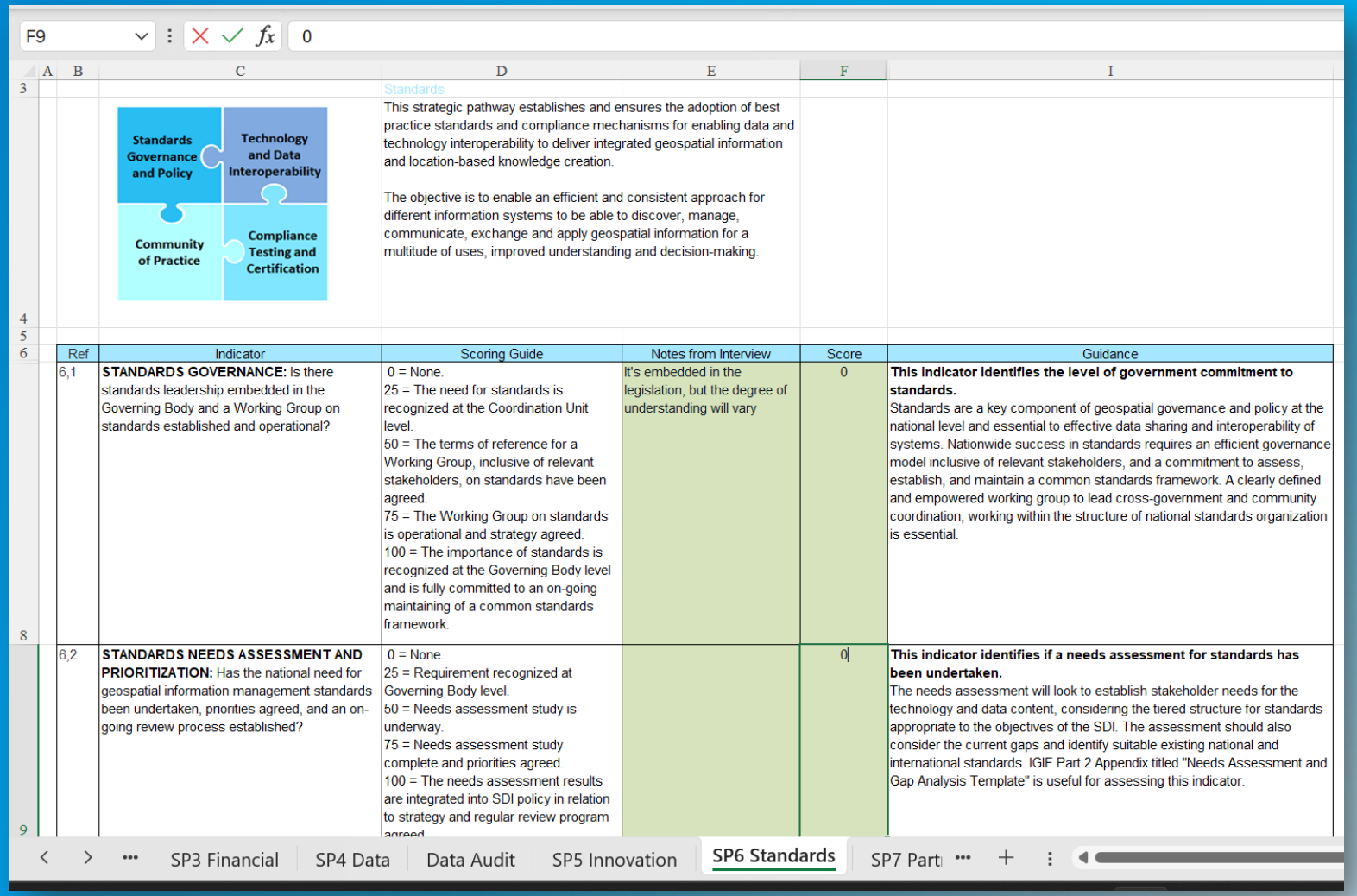
7 Questions

SP9: Communication and Engagement

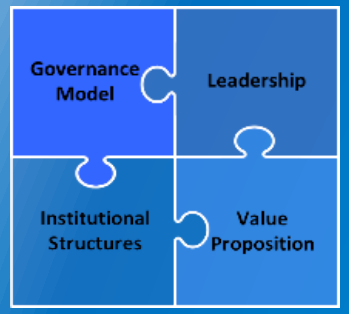
8 Questions

UN-IGIF Diagnostic Tool (DT)





The Diagnostic Tool – Governance and Institutions Results



Governance and Institutions

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Current situation

[Insert short paragraphs summarizing the current state of SDI in relation to this strategic pathway.]

Strengths

[Insert short summary from the DT of the strong points under this strategic pathway.]

Weaknesses

[Insert short summary from the DT of most significant areas of weakness under this pathway

Recommendations

[Outline significant immediate actions related to the strategic pathway scope that will create rapid improvement, or without which, other progress will not be possible.]

Lessons of IGIF DT use

1) General approach:

- Selection of the stakeholders for interviews: **government agencies, academic sector, private sector companies** main producers and users of the spatial data;
- IGIF DT interviews of selected stakeholders are carried out by the international consultants - subject matter experts

2) Concentration on local resources capacity building:

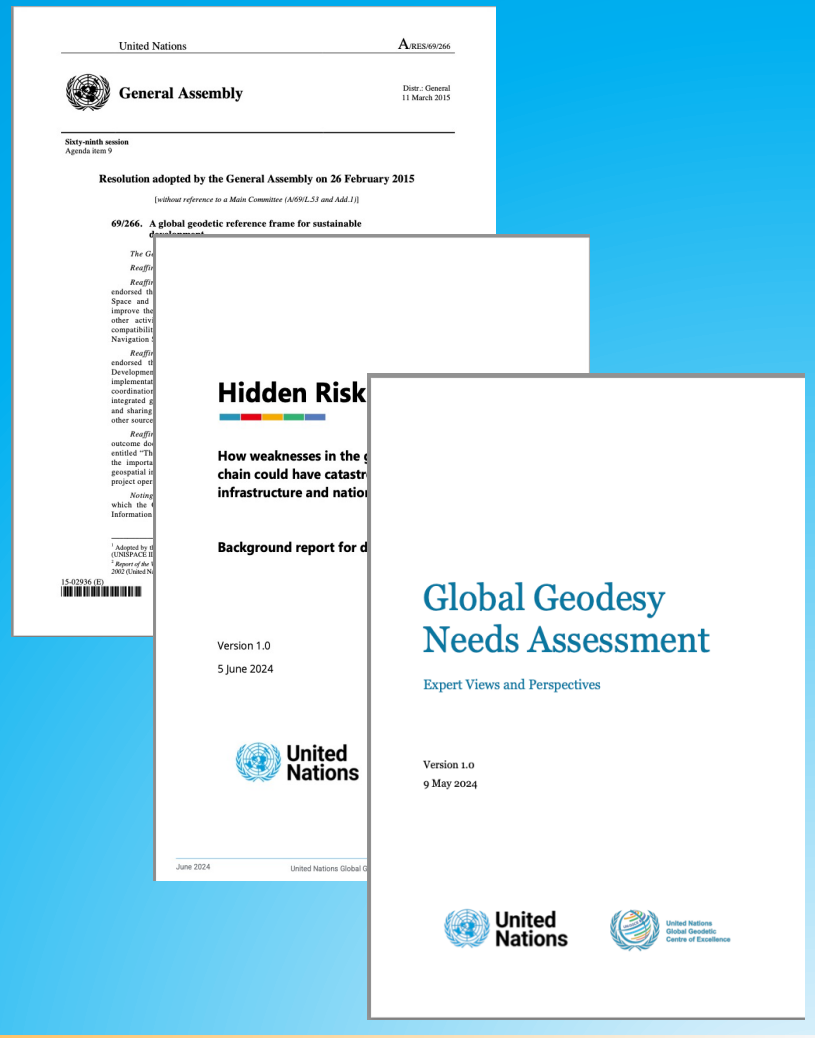
- Selection of stakeholders to respond the questionary - **government agencies, academic sector, private sector companies**;
- **Introductory training** to the selected stakeholders, explanation of the tool, terminology used and way to fill it up;
- Training of some local experts **enabling to carry out the** interviews requires a time;
- Stakeholders with support of local expert to respond the questionaries
- Review and final processing by the international consultant

Important recent publications

UN General Assembly Resolution 69/266 of 26.02.2015 "**A global geodetic reference frame for sustainable development**"

Publication and presentations:

- UN-GGCE "**Global Geodesy Needs Assessment**. Experts views and perspectives" on 9 May 2024;
- UN-GGCE "**Hidden Risks.** How weaknesses on Global Geodesy supply chain could have catastrophic impacts on critical infrastructure and national economies" on 05 June 2024
- Geospatial World – "**Evolving Role of National mapping Agencies**. Transition to Geospatial Knowledge Infrastructure" presentation to UN-GGCE, 18.08.2024



Thank you

Questions please