

International Seminar on United Nations Global Geospatial Information Management

“Geospatial Information for Sustainable Development”

6 – 7 December 2018

Nairobi, Kenya



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UNITED NATIONS
COMMITTEE OF EXPERTS ON
GLOBAL GEOSPATIAL
INFORMATION MANAGEMENT

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



Federated Information System for the SDGs - *Rationale and Vision*

TEO CheeHai

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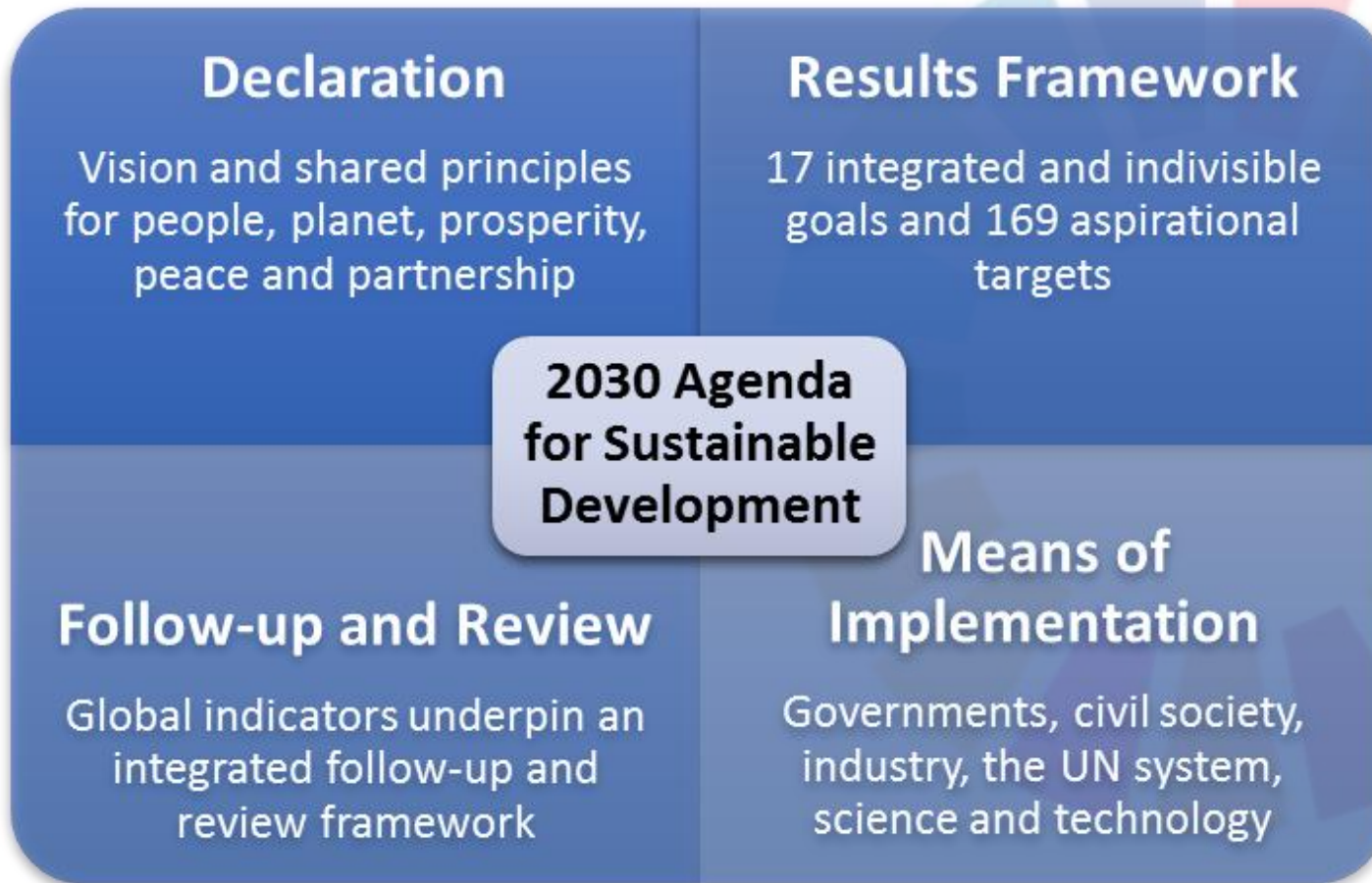
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Positioning geospatial information to effectively address global challenges

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The 2030 Agenda for Sustainable Development



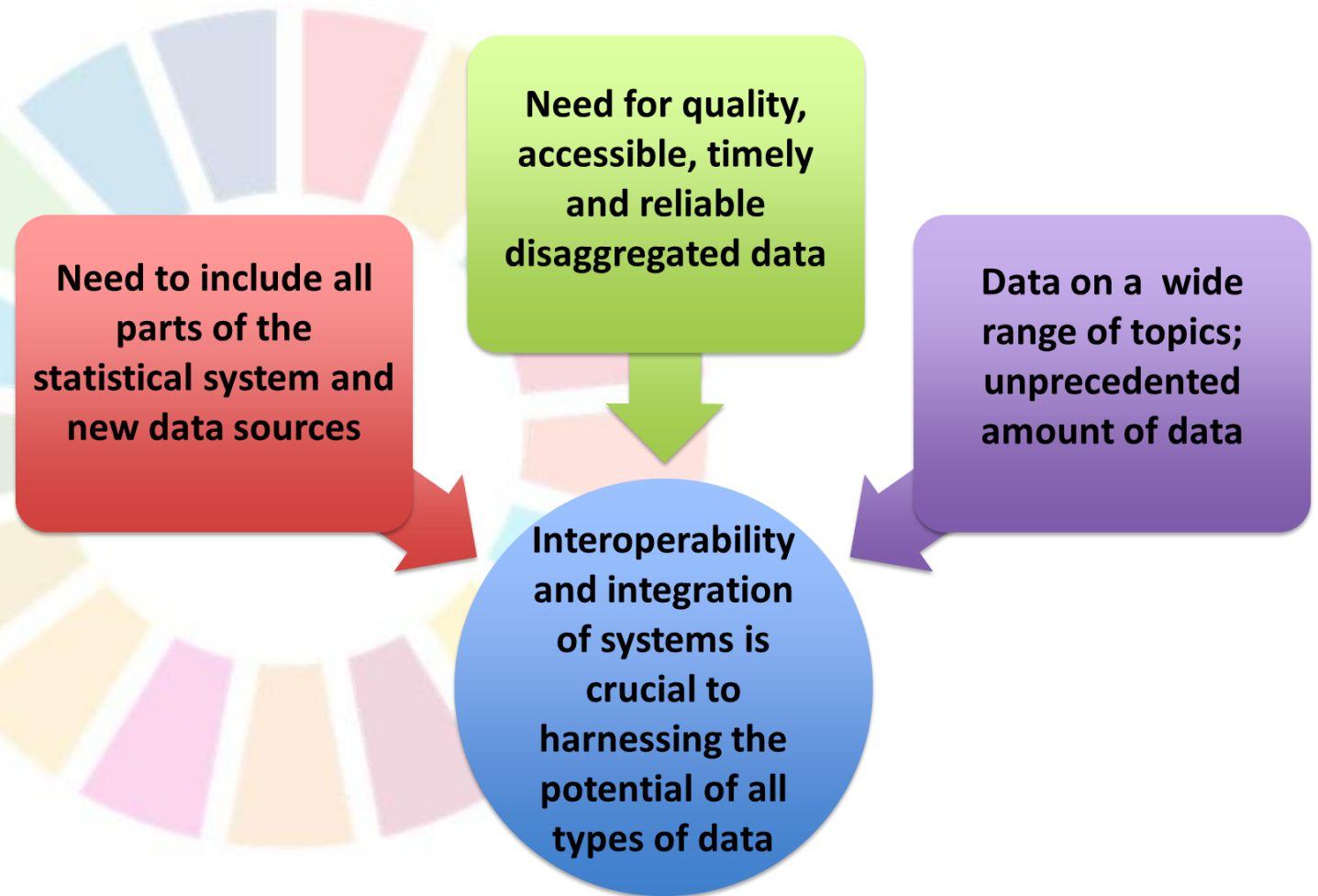
Addressing the data needs for the 2030 Agenda for Sustainable Development

New data sources and technologies for data collection will need to be explored, including through partnerships with civil society, the private sector and academia. The integration of geospatial information and statistical data will also be essential for the production of a number of indicators.

(Sustainable Development Goals Report, 2016)

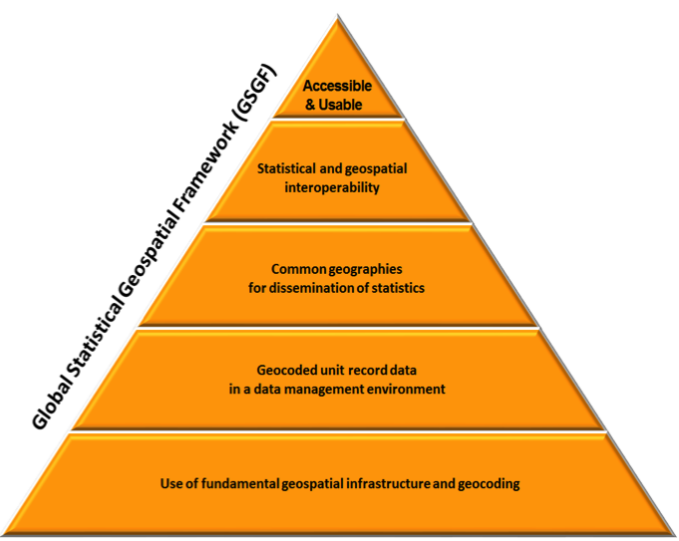
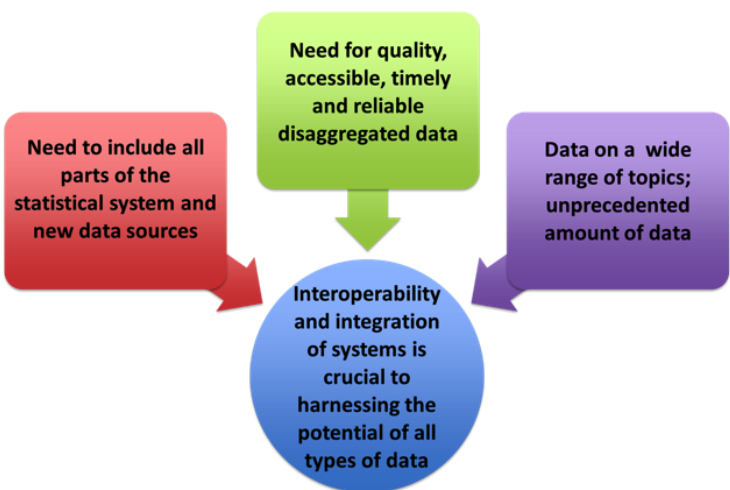
Towards this end, national statistical systems need to invest in the technology and skills necessary to collect and integrate data from multiple sources, including integration of geospatial information with statistics and other data.

(Sustainable Development Goals Report, 2017)



**helping Member States to implement national development and strategic priorities,
make decisions, and measure and monitor outcomes**





Geography and Statistical Data Are Foundational

An Integrated Data Model is Essential

Boundaries

Nested Administrative Hierarchy

Provinces
Districts
Localities
Enumeration Areas

Key

EA Id	Area
1203501750071	42.3
1203501750072	34.8
1203501750073	26.9
1203501750074	51.2

Census Data

EA Id	Population	Male	Female
1203501750071	432	209	223
1203501750072	502	240	262
1203501750073	520	258	267
1203501750074	494	251	243

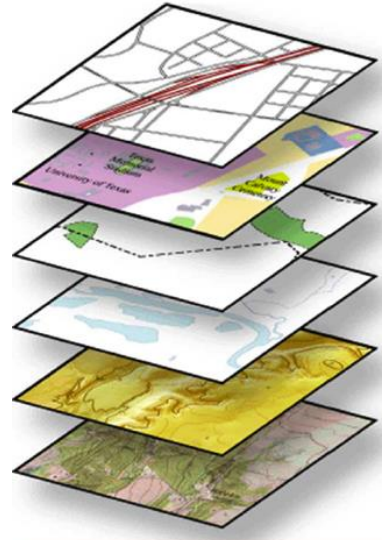
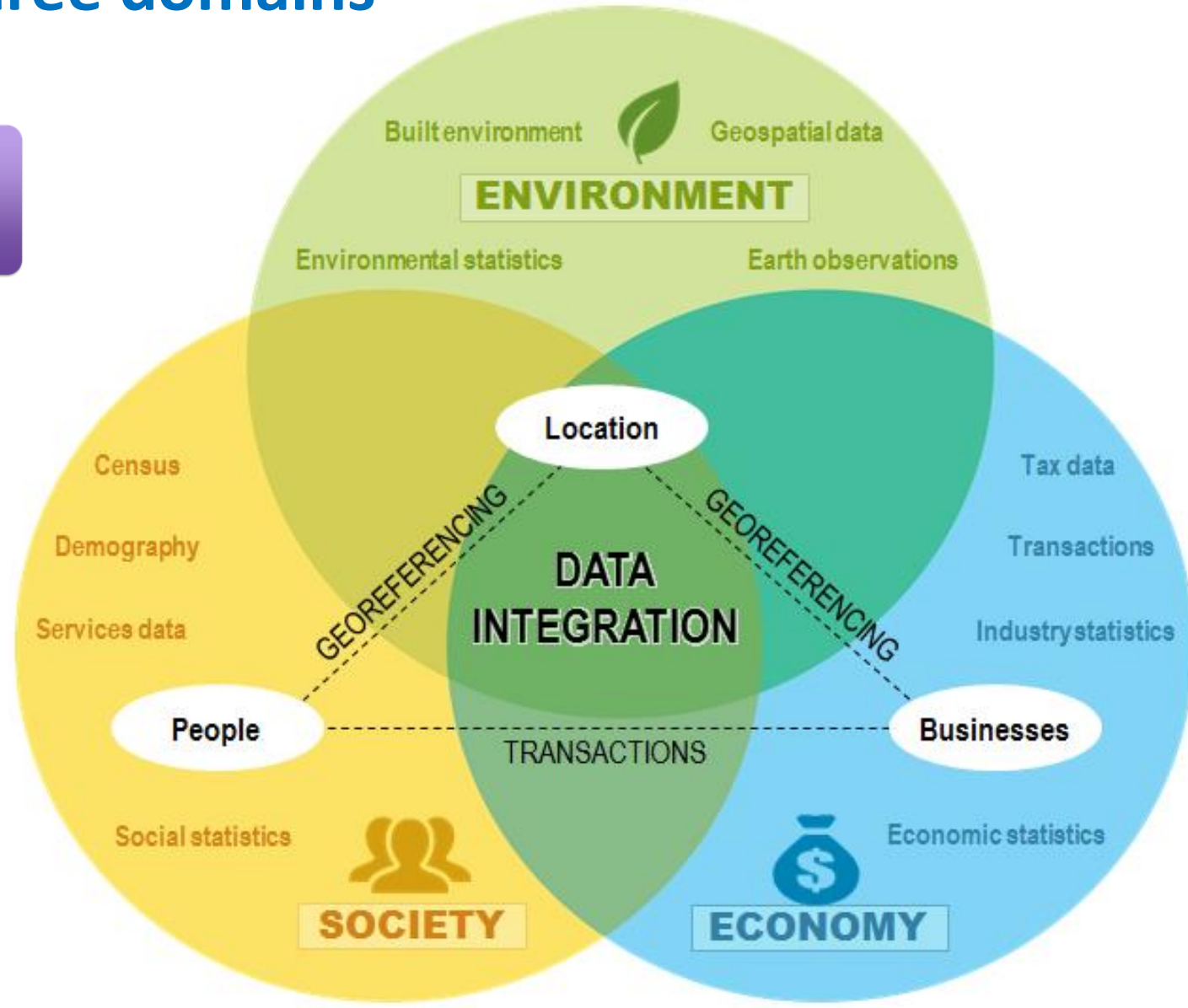
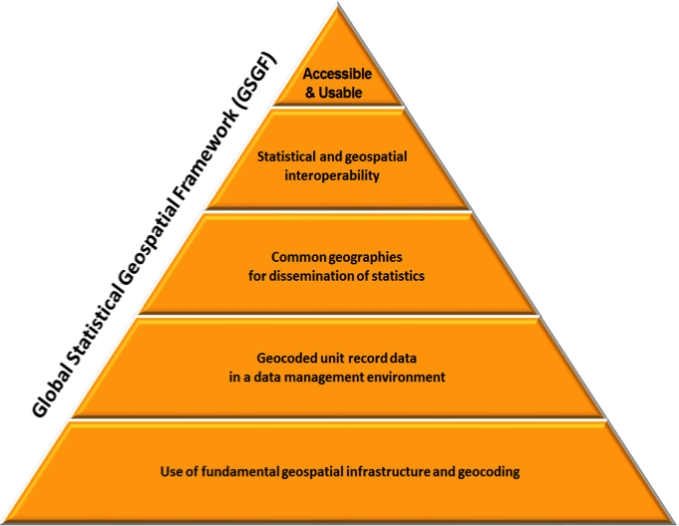
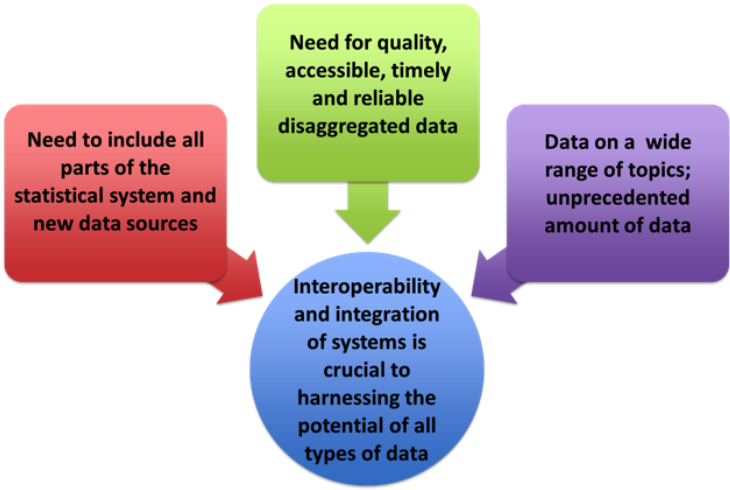
EA Id	Num HH	Avg HH size
1203501750071	89	4.9
1203501750072	98	5.1
1203501750073	102	5.1
1203501750074	85	5.8

Diagram and information taken from the "Handbook on the Geospatial Infrastructure in Support of Census Activities", Department of Economic and Social Affairs, United Nations Statistics Division

helping Member States to implement national development and strategic priorities, the 2030 Agenda for Sustainable Development, make decisions, and measure and monitor outcomes



.. .. bridging the three domains



Geospatial information is a critical component of the national infrastructure and knowledge economy; a blueprint of what happens where, and the means to integrate a wide variety of government services.





TRANSFORMING OUR WORLD: THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

General Assembly Resolution A/RES/70/1

Para. 76; Follow up and Review

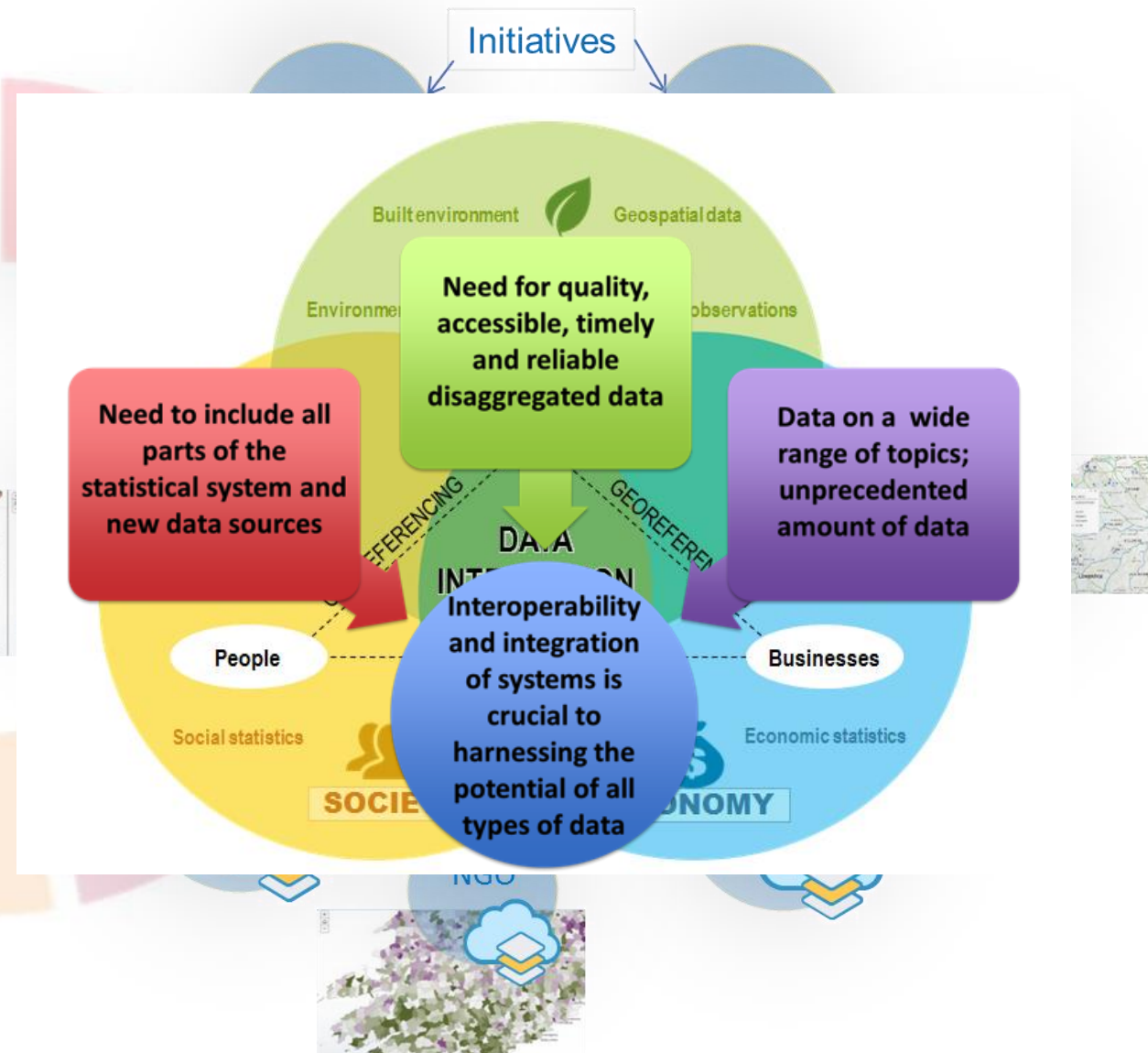
We will support developing countries, particularly African countries, LDCs, SIDS and LLDCs, in strengthening the capacity of national statistical offices and data systems to ensure access to high quality, timely, reliable and disaggregated data. We will promote transparent and accountable scaling-up of appropriate public-private cooperation to exploit the contribution to be made by a wide range of data, ***including earth observation and geospatial information***, while ensuring national ownership in supporting and tracking progress.

Target 17:18; Data, monitoring and accountability

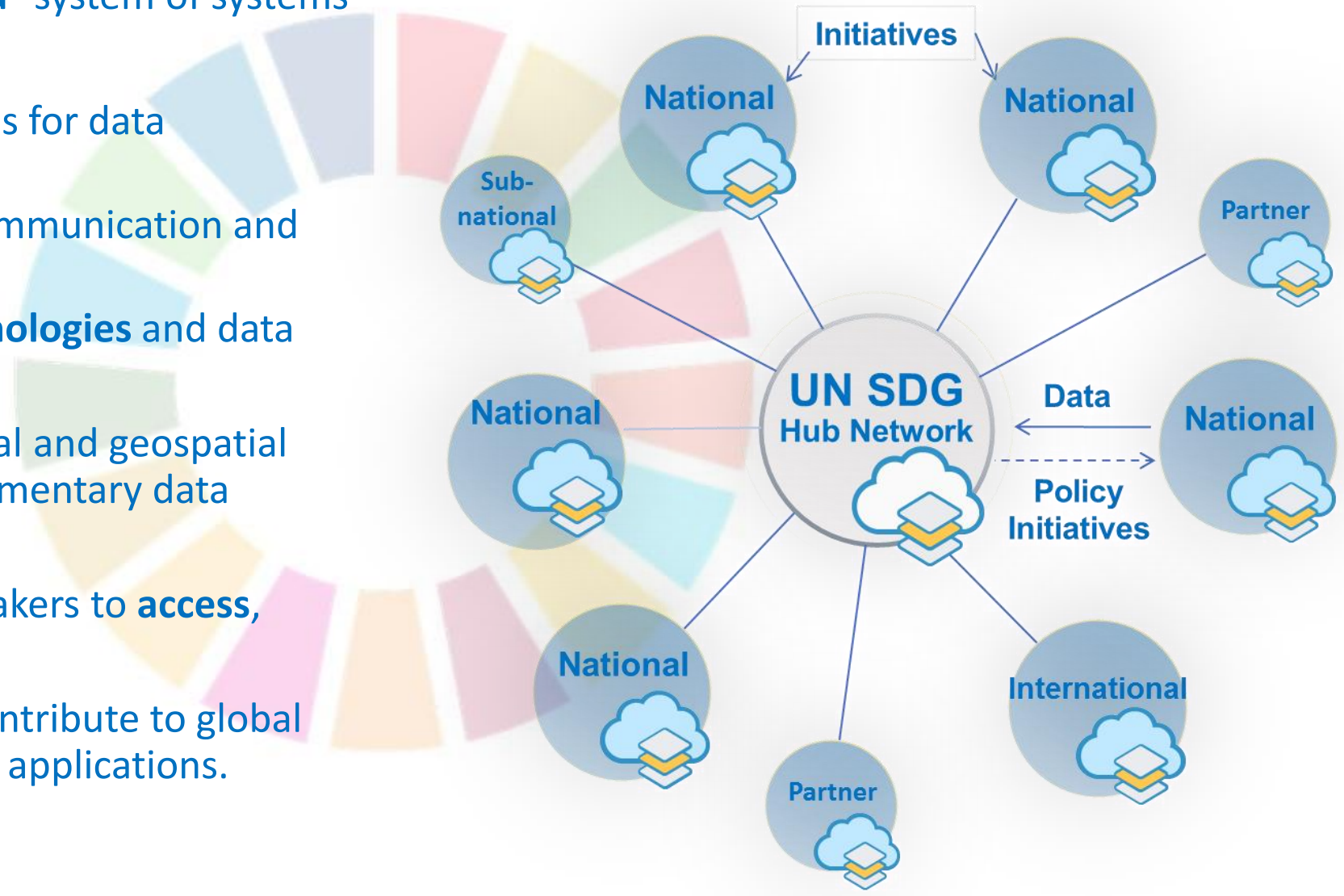
By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, ***geographic location*** and other characteristics relevant in national contexts.

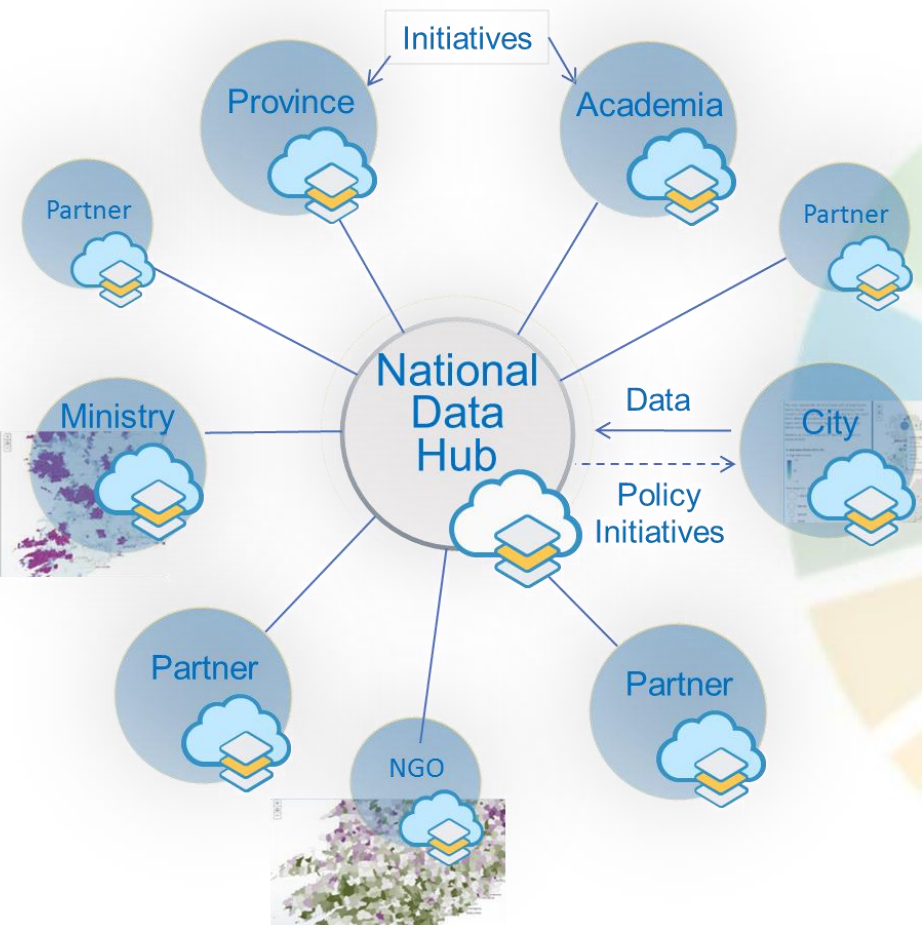


- **National and subnational reporting** is the most significant level of the SDG review process
- The global SDG monitoring system **builds on national data reporting**
 - Data derived from **national sources** is the foundation for SDG reviews at all levels
 - It is crucial to create opportunities for countries to directly contribute to **global reporting**
- **Digital technology** is available today that allows national information systems to leverage:
 - New sources of data and information
 - New approaches for data collection, management, processing and dissemination
 - New partnerships with civil society, the private sector and academia
 - Integration of geospatial, statistical, and other information systems

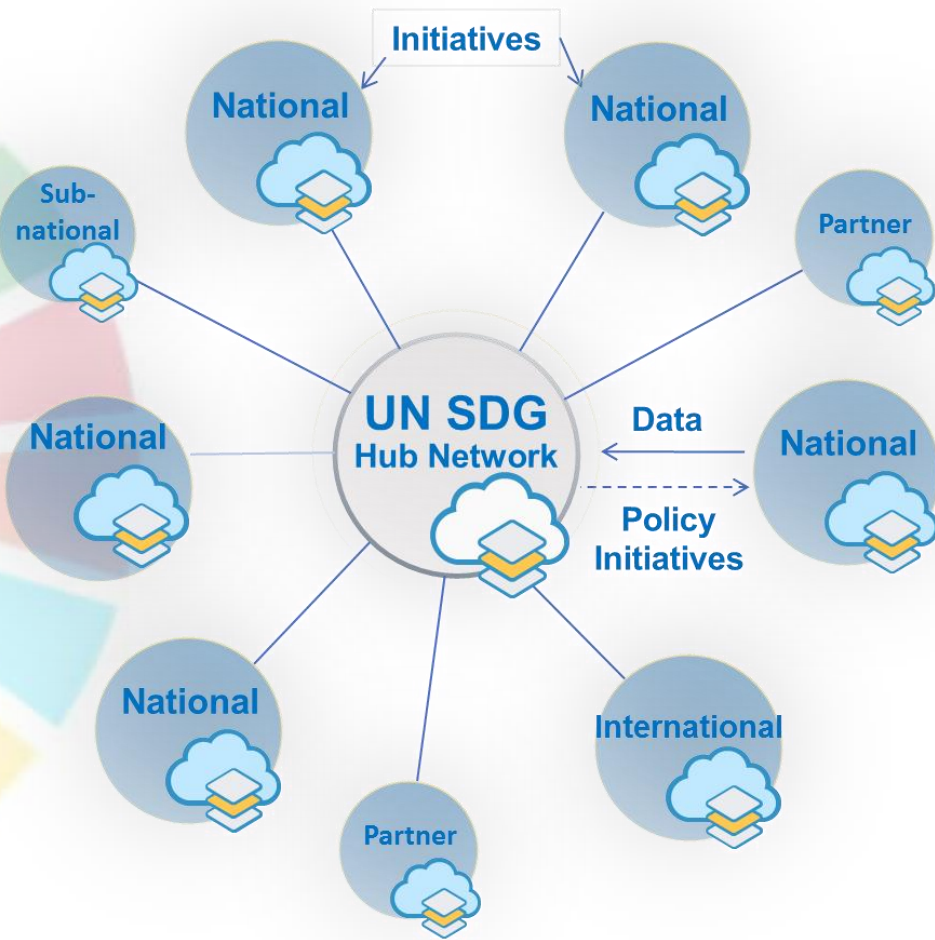


- It is a **country-owned, country-led** “system of systems”
- Implemented through
 - **Open standards** and principles for data interoperability
 - **Web-based collaboration**, communication and user engagement
 - **Geospatial information technologies** and data analytics capabilities
- Supports management of statistical and geospatial data, **integrating** new and complementary data sources with traditional ones
- Enables local/national decision makers to **access**, understand and use SDG data
- Encourage countries to directly contribute to global SDG reporting through **innovative** applications.





- **Linked to a global network to share data, templates and common initiatives**
- **Supporting national partnerships around data and policy initiatives**
- **Providing an inclusive and enabling environment for all stakeholders**

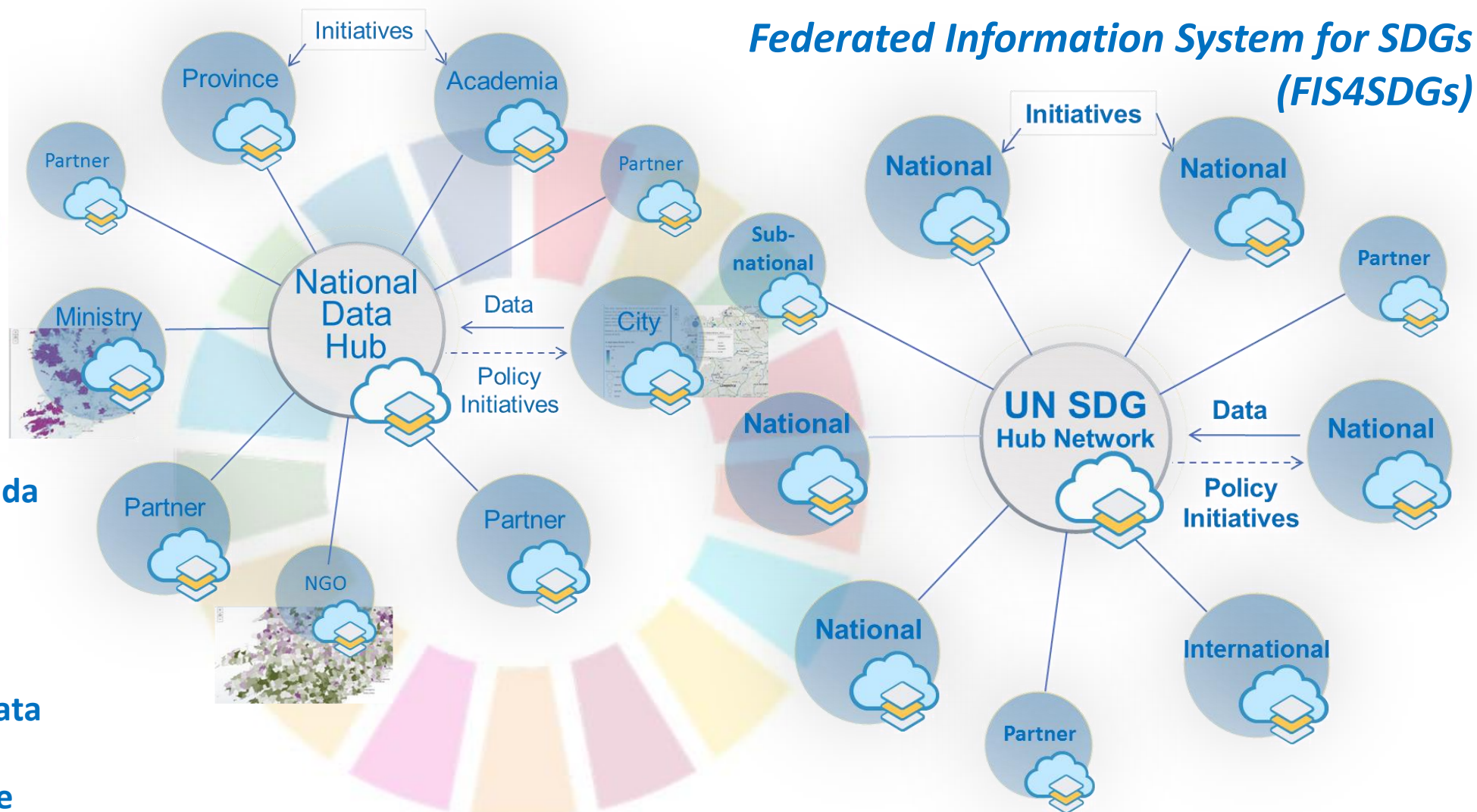


Federated Information System for SDGs (FIS4SDGs)





Vision:
Implementing the 2030 Agenda
 through the effective
 dissemination and use of
 integrated statistical and
 geospatial data, enabled by
 technologies that facilitate data
 sharing, interoperability and
 collaboration to report on the
 SDGs across local, national and
 global data hubs.



Federated Information System for SDGs (FIS4SDGs)

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 the 2030 Agenda for Sustainable Development,
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“strengthening the capacity of national statistical offices and data systems”

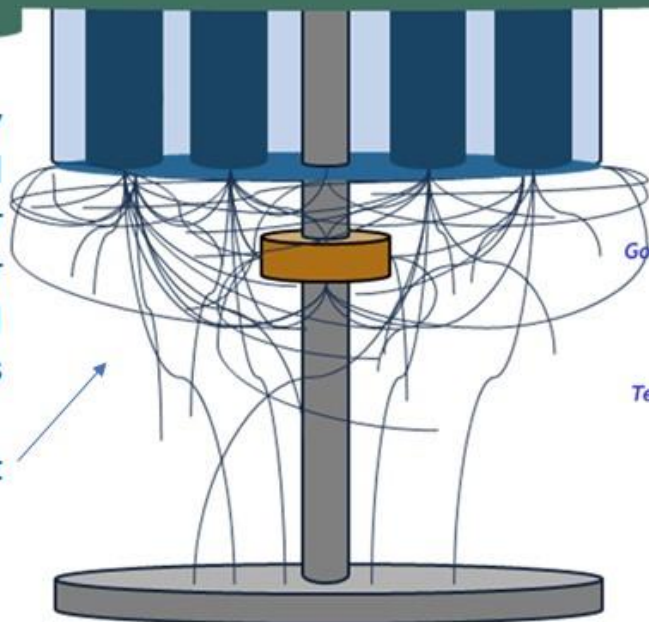
(A/RES/70/1, para 76)



Silo thinking in policy development, duplication and inefficiency, poor value for money, confusion for stakeholders, and overall reduction in policy effectiveness

It is difficult to explain to legal and policy makers what should be regulated and why

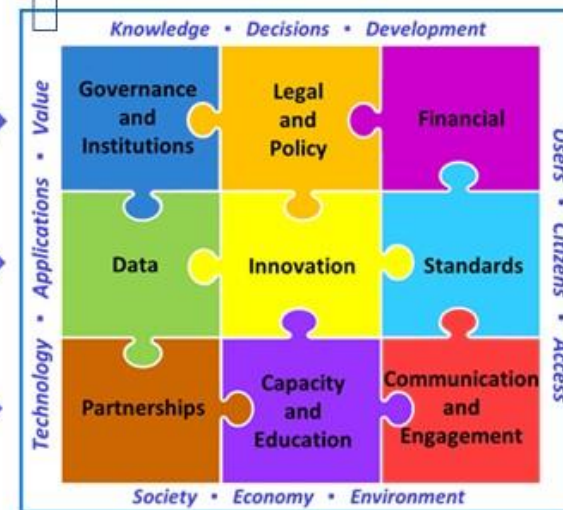
Result



Governance

Technology

People



Malgorzata Drewniak, Lantmateriet Sweden, UNWGIC Nov 2018

Vision: Implement through disseminate integrate geospatial technology sharing, collaboration SDGs across global data

Partner

National

es,

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United Nations Committee of Experts on Global Geospatial Information Management

Working Group on Legal and Policy Frameworks for Geospatial Information Management

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Anchored by nine Strategic Pathways, the Framework is a mechanism for articulating and demonstrating national leadership in geospatial information, and the capacity to take positive steps.

GOALS									
Effective Geospatial Information Management		Increased Capacity, Capability and Knowledge Transfer		Integrated Geospatial Information Systems and Services			Economic Return on Investment		
Sustainable Education and Training Programs		International Cooperation and Partnerships Leveraged		Enhanced National Engagement and Communication			Enriched Societal Value and Benefits		
STRATEGIC PATHWAYS									
Governance and Institutions	Legal and Policy	Financial	Data	Innovation	Standards	Partnerships	Capacity and Education	Communication and Engagement	
Governance model Institutional structures Leadership Value proposition	Legislation Implementation and accountability Norms, policies and guides Data protection and licensing	Business model Investment Partnerships and opportunities Benefits realization	Fundamental data themes Data supply chain interlinkages Custodianship, acquisition and management Data curation and delivery	Technological advances Promoting innovation and creativity Process improvement Bridging the digital divide	Legal interoperability Semantic interoperability Data interoperability Technical interoperability	Cross-sector and interdisciplinary cooperation Community participation Industry partnerships and joint ventures International collaboration	Awareness raising Entrepreneurship Formal education Professional workplace training	Stakeholder identification Planning and execution Integrated engagement strategies Monitoring and evaluation	
Knowledge Decisions Development Society Economy Environment Users Citizens Access Technology Applications Value									

The efficient use of geospatial information

To promote and sustainably integrated geospatial information

National Development Expectations • Multi-City New Urban Agenda • Island Developing States • Climate Change

Strategic Enablement

Effective Geospatial Information Management

Sustainable Education and Training Programs



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