Transforming our world –
The 2030 Agenda for
Sustainable Development

Virtual Regional Seminar on Operationalizing the IGIF in Asia and the Pacific

25 November and 2 December 2020

Nationally Integrated Geospatial Information Management for Evidence-Based Policies and Decisions

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United Nations, New York

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"Location underpins everything we do...and its <u>integration</u> with other data of importance to our lives is key to providing better and more useful information, knowledge, insights, and shared understanding...which in turn will enable us to so much better achieve the SDGs and other important international to local goals"

INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK

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

Part 1: Overarching Strategic Framework – **WHY** geospatial information is a critical element of national social and economic development, and needs to be strengthened.

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

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

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What is a Strategic Framework?

OBJECTIVES — Measurable milestones that describe what the organisation wants to do to fulfil the Vision

PURPOSE — Why the organisation exists

MISSION — What the organisation does, for who, where, and to what extent

VISION — Where the organisation sees itself in 3, 5, 10, and 25 years

VALUES — What the organisation perceives important about what it does and how it operates

STRATEGIES — How management intends to achieve the objectives

ACTIONS — Specifics with activities necessary to implement strategies

TACTICS — Operational fulfillment of strategies. Often mistaken as strategies.

TASKS — Indivisible jobs needed to implement tactics

Implementation

Strategy

STRATEGY – Why?

IMPLEMENTATION – What and How?

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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.
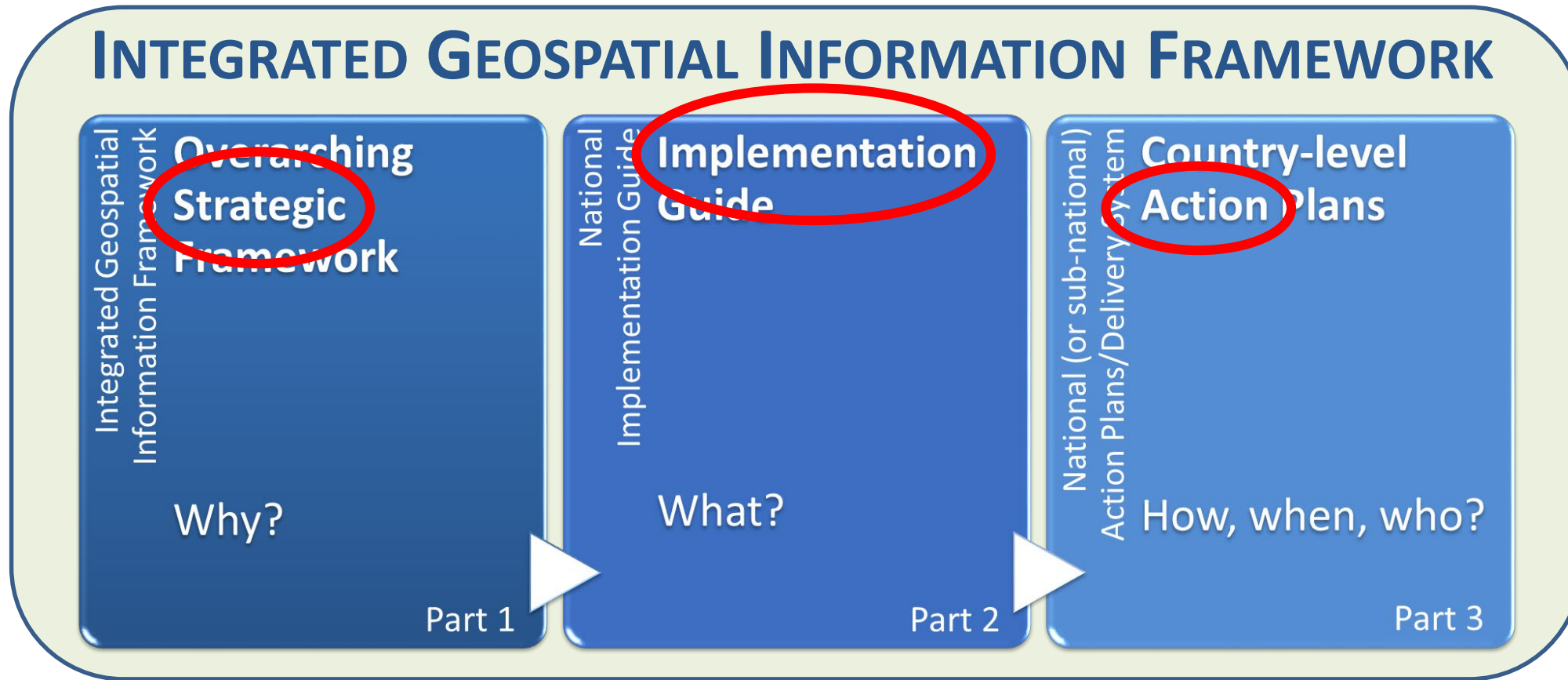
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Overarching Strategic Framework: Vision and Mission

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.

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.

STRATEGIC DRIVERS

National Development Agenda ● National Strategic Priorities ● National Transformation Programme ● Community Expectations ● Multilateral trade agreements ● Transforming our World: 2030 Agenda for Sustainable Development ● New Urban Agenda ● Sendai Framework for Disaster Risk Reduction 2015–2030 ● Addis Ababa Action Agenda ● Small Island Developing States Accelerated Modalities of Action (SAMOA Pathway) ● United Nations Framework Convention on Climate Change (Paris Agreement) ● United Nations Ocean Conference: Call for Action

UNDERPINNING PRINCIPLES

Strategic Enablement	Transparent and Accountable	Reliable, Accessible and Easily Used	Collaboration and Cooperation	Integrative Solution	Sustainable and Valued	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.

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

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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9 Strategic Pathways

Governance →

Technology →
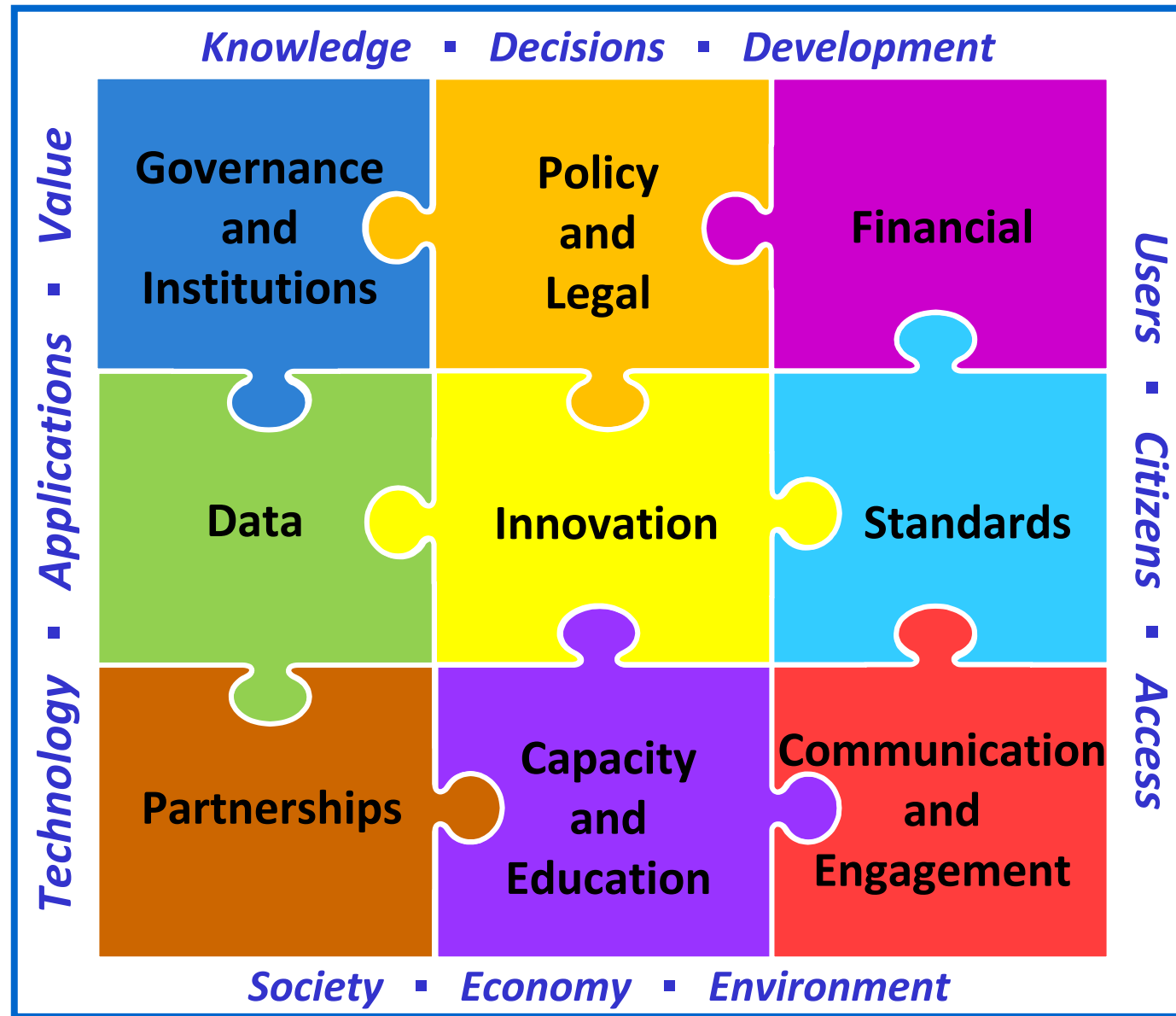
People →

Knowledge ▪ Decisions ▪ Development

Value ▪ Applications ▪ Technology

Governance and Institutions	Policy and Legal	Financial
Data	Innovation	Standards
Partnerships	Capacity and Education	Communication and Engagement

Users ▪ Citizens ▪ Access

Society ▪ Economy ▪ Environment

Anchored by 9 Strategic Pathways, the IGIF is a mechanism for articulating and demonstrating national leadership in geospatial information, and the capacity to take positive steps. The Strategic Pathways 'implement' the IGIF through actions.

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36 Key Elements

Governance →

Technology →

People →

Knowledge ▪ Decisions ▪ Development

Value		Knowledge		Development	
Governance Model	Leadership	Legislation	Policies, Norms and Guides	Business Model	Opportunities
Institutional Arrangements	Value Proposition	Governance and Accountability	Data Protection, Licensing and Sharing	Benefits Realization	Investment
Data Themes	Custodianship, Acquisition and Management	Technological Advances	Process Improvement	Standards Governance and Policy	Technology and Data Interoperability
Data Curation and Delivery	Data Supply Chains	Bridging the Geospatial Digital Divide	Innovation and Creativity	Community of Practice	Compliance Testing and Certification
Cross-sector and Interdisciplinary Cooperation	Private Sector and Academia Collaboration	Awareness	Formal Education	Stakeholder and User Engagement	Strategic Messaging and Engagement
Community Participation	International Collaboration	Entrepreneurship	Professional Training	Monitoring and Evaluation	Communication Strategy, Plans and Methods

Value ▪ Applications ▪ Technology (left axis)

Users ▪ Citizens ▪ Access (right axis)

Society ▪ Economy ▪ Environment

Anchored by 9 Strategic Pathways, the IGIF is a mechanism for articulating and demonstrating national leadership in geospatial information, and the capacity to take positive steps. The Strategic Pathways 'implement' the IGIF through <u>actions</u>.

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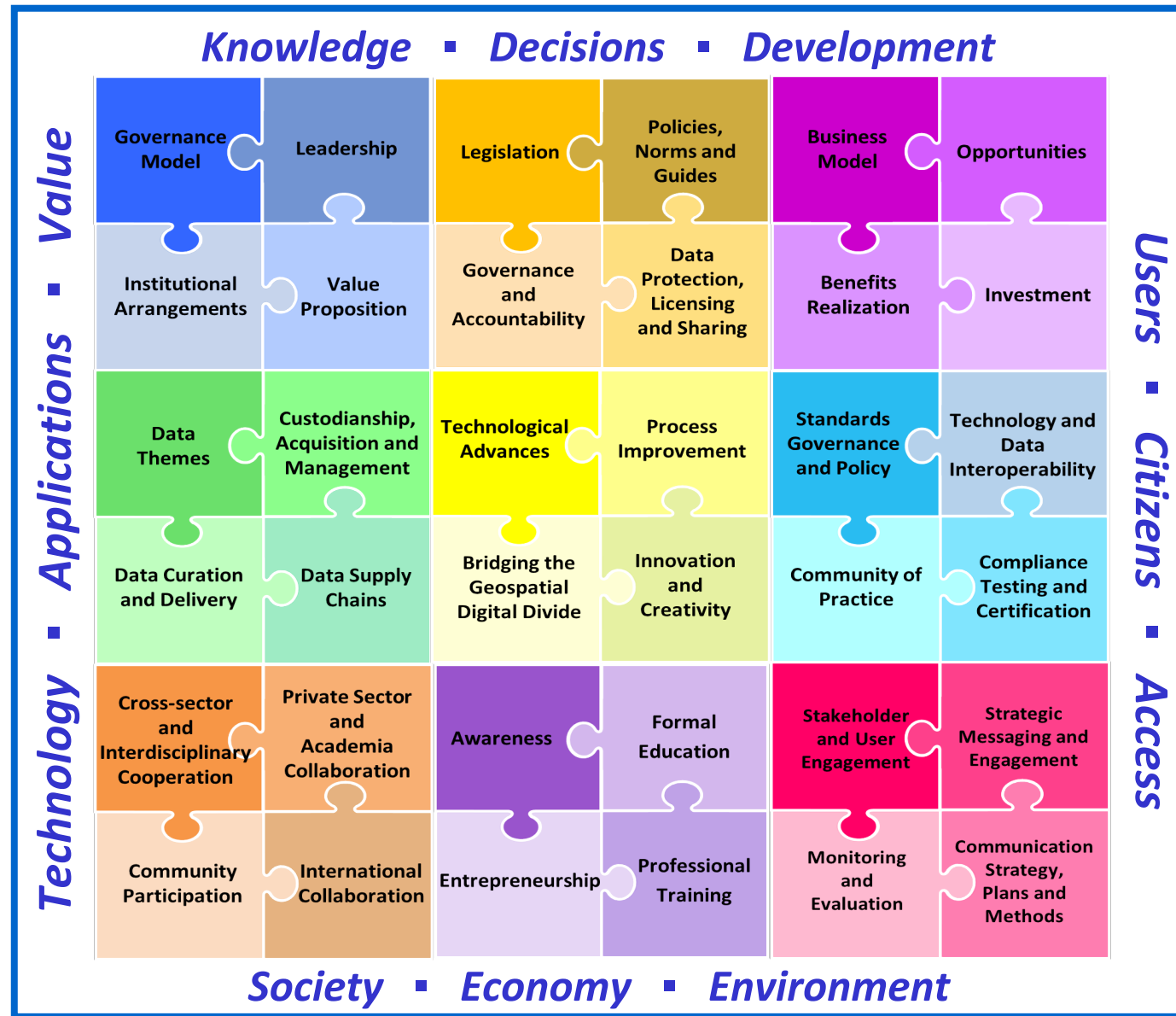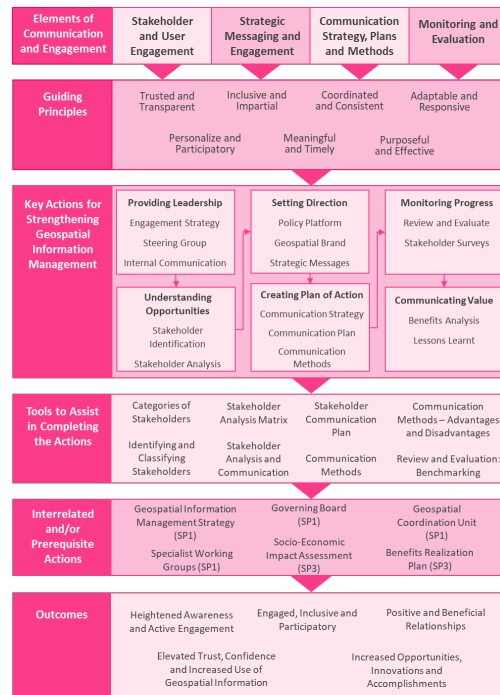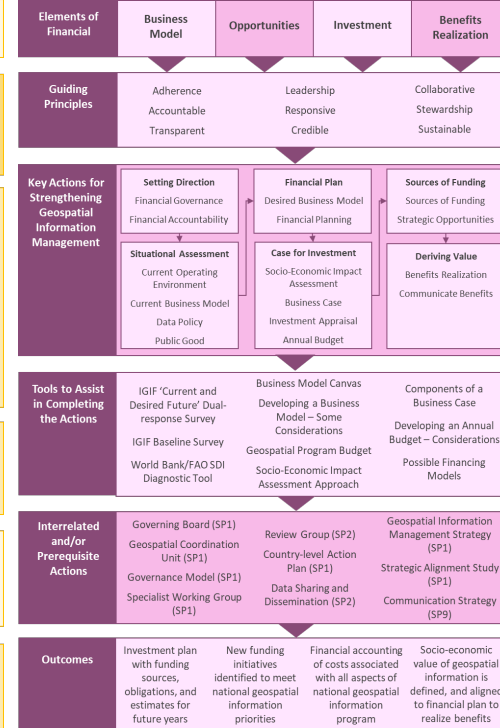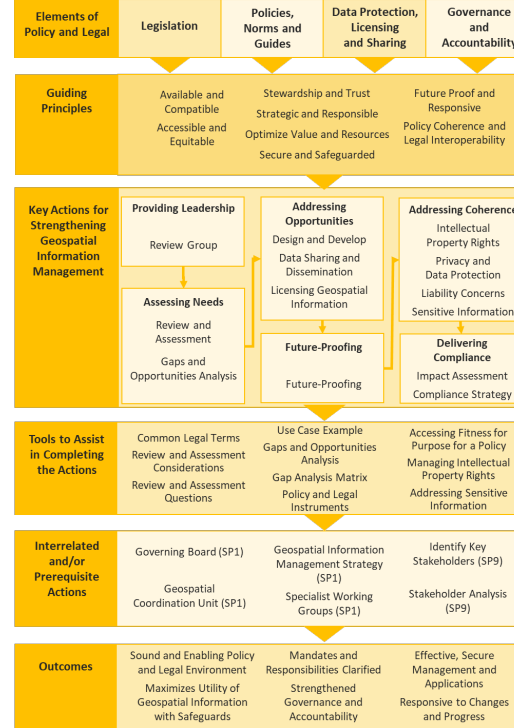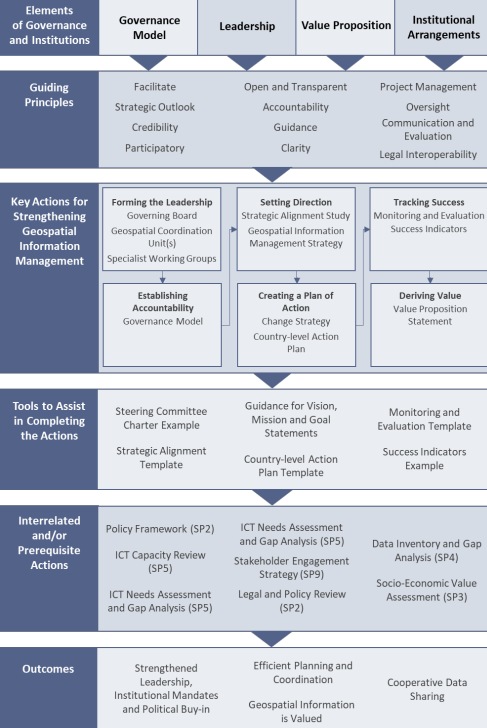*Positioning geospatial information to address global challenges*

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135 Guidance Actions for Implementation

Puzzle Legend

Governance and Institutions | Policy and Legal | Financial
Data | Innovation | Standards
Partnerships | Capacity and Education | Communication and Engagement

Governance and Institutions

	Governance Model	Leadership	Value Proposition	Institutional Arrangements
Guiding Principles	Facilitate; Strategic Outlook; Credibility; Participatory	Open and Transparent; Accountability; Guidance; Clarity		Project Management; Oversight; Communication and Evaluation; Legal Interoperability
Key Actions for Strengthening Geospatial Information Management	Forming the Leadership — Governing Board; Geospatial Coordination Unit(s); Specialist Working Groups. Establishing Accountability — Governance Model	Setting Direction — Strategic Alignment Study; Geospatial Information Management Strategy. Creating a Plan of Action — Change Strategy; Country-level Action Plan	Deriving Value — Value Proposition Statement	Tracking Success — Monitoring and Evaluation; Success Indicators
Tools to Assist in Completing the Actions	Steering Committee Charter Example; Strategic Alignment Template	Guidance for Vision, Mission and Goal Statements; Country-level Action Plan Template		Monitoring and Evaluation Template; Success Indicators Example
Interrelated and/or Prerequisite Actions	Policy Framework (SP2); ICT Capacity Review (SP5); ICT Needs Assessment and Gap Analysis (SP5)	ICT Needs Assessment and Gap Analysis (SP5); Stakeholder Engagement Strategy (SP9); Legal and Policy Review (SP2)	Data Inventory and Gap Analysis (SP4); Socio-Economic Value Assessment (SP3)	
Outcomes	Strengthened Leadership, Institutional Mandates and Political Buy-in	Efficient Planning and Coordination; Geospatial Information is Valued		Cooperative Data Sharing

Policy and Legal

	Legislation	Policies, Norms and Guides	Data Protection, Licensing and Sharing	Governance and Accountability
Guiding Principles	Available and Compatible; Accessible and Equitable	Stewardship and Trust; Strategic and Responsible; Optimize Value and Resources; Secure and Safeguarded		Future Proof and Responsive; Policy Coherence and Legal Interoperability
Key Actions for Strengthening Geospatial Information Management	Providing Leadership — Review Group. Assessing Needs — Review and Assessment; Gaps and Opportunities Analysis	Addressing Opportunities — Design and Develop; Data Sharing and Dissemination; Licensing Geospatial Information. Future-Proofing — Future-Proofing		Addressing Coherence — Intellectual Property Rights; Privacy and Data Protection; Liability Concerns; Sensitive Information. Delivering Compliance — Impact Assessment; Compliance Strategy
Tools to Assist in Completing the Actions	Common Legal Terms; Review and Assessment Considerations; Review and Assessment Questions	Use Case Example; Gaps and Opportunities Analysis; Gap Analysis Matrix; Policy and Legal Instruments		Accessing Fitness for Purpose for a Policy; Managing Intellectual Property Rights; Addressing Sensitive Information
Interrelated and/or Prerequisite Actions	Governing Board (SP1); Geospatial Coordination Unit (SP1)	Geospatial Information Management Strategy (SP1); Specialist Working Groups (SP1)		Identify Key Stakeholders (SP9); Stakeholder Analysis (SP9)
Outcomes	Sound and Enabling Policy and Legal Environment; Maximizes Utility of Geospatial Information with Safeguards	Mandates and Responsibilities Clarified; Strengthened Governance and Accountability		Effective, Secure Management and Applications; Responsive to Changes and Progress

Financial

	Business Model	Opportunities	Investment	Benefits Realization
Guiding Principles	Adherence; Accountable; Transparent	Leadership; Responsive; Credible	Collaborative; Stewardship; Sustainable	
Key Actions for Strengthening Geospatial Information Management	Setting Direction — Financial Governance; Financial Accountability. Situational Assessment — Current Operating Environment; Current Business Model; Data Policy; Public Good	Financial Plan — Desired Business Model; Financial Planning. Case for Investment — Socio-Economic Impact Assessment; Business Case; Investment Appraisal; Annual Budget	Sources of Funding — Sources of Funding; Strategic Opportunities. Deriving Value — Benefits Realization; Communicate Benefits	
Tools to Assist in Completing the Actions	IGIF 'Current and Desired Future' Dual-response Survey; IGIF Baseline Survey; World Bank/FAO SDI Diagnostic Tool	Business Model Canvas; Developing a Business Model – Some Considerations; Geospatial Program Budget; Socio-Economic Impact Assessment Approach	Components of a Business Case; Developing an Annual Budget – Considerations; Possible Financing Models	
Interrelated and/or Prerequisite Actions	Governing Board (SP1); Geospatial Coordination Unit (SP1); Governance Model (SP1); Specialist Working Group (SP1)	Review Group (SP2); Country-level Action Plan (SP1); Data Sharing and Dissemination (SP2)	Geospatial Information Management Strategy (SP1); Strategic Alignment Study (SP1); Communication Strategy (SP9)	
Outcomes	Investment plan with funding sources, obligations, and estimates for future years	New funding initiatives identified to meet national geospatial information priorities	Financial accounting of costs associated with all aspects of national geospatial information program	Socio-economic value of geospatial information is defined, and aligned to financial plan to realize benefits

Data

	Data Themes	Custodianship, Acquisition and Management	Data Supply Chains	Data Curation and Delivery
Guiding Principles	Governance; Consistent Identification; Quality Management	Metadata; Standards; Accessibility; Reusable Formats	Authoritative; Timeliness; Provenance; Integrity	Demand Driven; Efficiency; Security; Respected Rights
Key Actions for Strengthening Geospatial Information Management	Getting Organized — Data Framework; Data Inventory; Dataset Profiles. Planning for the Future — Data Gap Analysis; Data Theme Road Map	Capturing and Acquiring Data — Data Capture; Data Acquisition Program. Maintaining Accurate Positioning — Maintained Geodetic Infrastructure. Managing Data Sustainably — Custodianship Policy; Data Governance; Data Management; Maintained Metadata; Data Release; Storage/Retrieval Systems		Integrating Data — Geospatial/Statistical Integration; Geocoding and Aggregation; Data Supply Chains; Data Interoperability
Tools to Assist in Completing the Actions	Fundamental Geospatial Data Themes; Data Theme Description; Data Inventory Questionnaire; Dataset Profile Template; Gap Analysis Matrix	Data Theme Road Map Template; Data Custodianship Policy Principles; Data Governance Roles; Data Management Plan Elements	Metadata Creation Checklist; Data Release Guidelines; Guidance for Improving Geodetic Infrastructure; Global Statistical Geospatial Framework; Geospatial/Statistical Integration	
Interrelated and/or Prerequisite Actions	Geospatial Strategy (SP1); Country-level Action Plan (SP1); Governance Model (SP1); Geospatial Steering Committee (SP1)	Geospatial Information Coordination Unit (SP1); Policy Framework (SP2); Licensing Models (SP2); New Data Capture Methods (SP5)	Storage Solutions (SP5); Metadata Standards (SP6); Establishing Partnerships (SP7); Identify Key Stakeholders (SP9)	
Outcomes	Increased Range and Scope of Authoritative Data	A Critical Mass of Centrally Coordinated Data; Cost Reduction Through Productivity Improvements	Ability to Monitor and Measure Progress Towards Achieving the SDGs	

Innovation

	Technological Advances	Innovation and Creativity	Process Improvement	Bridging the Geospatial Digital Divide
Guiding Principles	Leadership; Trust; Digital Connectivity	Digital Literacy; Collaboration; Enablement	Empowerment; Supportive Policies; User Centric	
Key Actions for Strengthening Geospatial Information Management	Geospatial Landscape — Innovation Group; Technology Maturity Index; Strategic Alignment. Identifying Innovation Needs — Monitoring Trends; Technology Needs Assessment	Transformation Roadmap — Modernizing Data Assets; Modern Data Creation Methods; Enabling Infrastructure. Culture of Innovation — Geospatial Digital Transformation Strategy; Building an Innovation Culture	Operationalizing Innovation — National Innovation System; Innovation Programs; Innovation Hubs; Process Improvement. Innovation Ecosystem — Bridging the Geospatial Digital Divide; Integrated System-of-Systems	
Tools to Assist in Completing the Actions	IGIF Technology Maturity Index; Capability Framework Matrix; Geospatial Drivers and Trends; ICT Data Inventory	PEST and SWOT Analyses; Modernizing Data Assets; Modern Data Creation Methods; Data Integration Approaches	Data Storage Processes; Pillars of an Innovation Program; Critical Path Analysis; Open SDG Data Hubs	
Interrelated and/or Prerequisite Actions	Governing Board (SP1); Governance Model (SP1); Specialist Working Groups (SP1)	Geospatial Information Coordination Unit (SP1); Data Inventory (SP4); Data Gap Analysis (SP4)	Country-level Action Plan (SP1); Geospatial Information Management Strategy (SP1)	
Outcomes	Improved Processes for Data Collection, Management, Analysis and Distribution	Increased Productivity Through an Innovation Enabled Environment; Improved Decision-Making	Ability to Bridge the Geospatial Digital Divide; Innovative Workforce	

Standards

	Standards Governance and Policy	Technology and Data Interoperability	Compliance Testing and Certification	Community of Practice
Guiding Principles	Leadership; Compliance; Governance; Engagement	Collaborative; Modernized Practice; Interoperability; Scalable	Usability; Responsive; Extensible; Open and Accessible	
Key Actions for Strengthening Geospatial Information Management	Direction Setting — Standards Governance Framework; Standards Awareness; Strategic Goals. Understanding National Needs — Baseline Survey; Standards Inventory; Needs Assessment and Gap Analysis	Planning for Change — Action Plan; Institutional Arrangements. Taking Action — Implementation; Communication and Engagement; Risk Assessment	Ongoing Management — Standards Review Program; Community of Practice; Capacity Building. Achieving Outcomes — Compliance; Success Indicators	
Tools to Assist in Completing the Actions	National Governance Model Examples; Standards Baseline Survey; Needs Assessment and Gap Analysis Template	Roles and Responsibilities for National Standards Governance; Standards Training, Tools and Related Resources	User Community Case Studies and Statements of Benefits; Community Best Practice Examples	
Interrelated and/or Prerequisite Actions	Governing Board (SP1); Geospatial Information Coordination Unit (SP1); Specialist Working Groups (SP1); Benefits Realization Plan (SP3)	Data Framework (SP4); Data Inventory Template (SP4); Data Inventory Questionnaire (SP4); Checklist for Creating Metadata (SP4)	Join/Build a Community of Practice/Capacity Building Methods (SP8); Communication Plan (SP9)	
Outcomes	Minimized Barriers to Data Sharing and Integration; Improved Uptake of Geospatial Information	Rapid Mobilization of New Data and Technologies; Efficiencies in Geospatial Data Production and Lifecycle Management	Enhanced Abilities to Share Geospatial Information and Address Issues of Common Importance	

Partnerships

	Cross-sector and Interdisciplinary Cooperation	Private Sector and Academia Collaboration	International Collaboration	Community Participation
Guiding Principles	Mutual Respect, Trust and Understanding; Leadership, Commitment and Empowerment	Shared Vision and Goals; Learning and Development; Transparency and Communication	Clarity and Realism of Purpose and Scope; Performance Management and Accountability	
Key Actions for Strengthening Geospatial Information Management	Understanding Partnerships — Need for Partnering; Types of Partnership. Evaluating Opportunities — Partnership Opportunities; Selection Criteria	Identifying Potential Partners — Potential Partners; Preliminary Screening; Initial Engagement. Selecting Partners — Options and Operational Implications; Financial Analysis	Formalizing Partnership — Establishing Agreement; Communication Plan; Governance Structure. Managing Partnership — Reporting and Accountability; Review and Evaluation; Concluding a Partnership	
Tools to Assist in Completing the Actions	Stakeholder Identification and Analysis; Types of Partnerships	Evaluation of Potential Partners; Success Indicators	Communication Plan; Review and Evaluation	
Interrelated and/or Prerequisite Actions	Geospatial Information Management Strategy (SP1); Policy and Legal Review and Assessment (SP2); Sources of Funding; Business Case (SP3); Data Gap Analysis (SP4)	Data Acquisition Program; Data Governance; Storage and Retrieval System; Data Release (SP4); Data Acquisition Alternatives; Technology Needs Assessment (SP5)	Geospatial Innovation System; New Product and Services (SP5); Capacity Needs Assessment (SP8); Stakeholder Identification; Stakeholder Analysis; Communication Plan (SP9)	
Outcomes	Increased Development Capacity; Expanded Capability	Sharing, Learning and Knowledge Transfer; Empowered Creativity and Innovation	Enhanced Organizational Knowledge, Expertise and Proficiencies; Agility and Flexibility	

Capacity and Education

	Awareness	Formal Education	Professional Training	Entrepreneurship
Guiding Principles	Responsible; Relevant; Responsive	Objective; Inclusive; Holistic	Collaborative; Coordinated; Resilient	Incentivized; Sustainable; Accountable
Key Actions for Strengthening Geospatial Information Management	Setting Direction — Capacity and Education Working Group; Target Groups. Assessing Needs — Inventory of Knowledge, Skills and Resources; Assessments and Analyses	Considering Alternatives — Capacity Development and Education Strategy. Planning for Action — Approaches; Implementation Plan; Reviewing Existing Programs; Outreach Initiatives. Assessing Value — Monitor and Evaluate	Taking Actions — Community of Practice; Innovation Hubs and Incubators; Geospatial Industry Challenges; Geography in Schools; Scholarships and Internships	
Tools to Assist in Completing the Actions	Knowledge-Skills-Resource Matrices for Organizations and Teams; Capacity Scanning Matrix	Incremental Approach to Needs Assessment/Analysis; Gap Analysis Approach to Needs Assessment/Analysis; PEST and SWOT Analyses	Typical Components of a Capacity Development and Education Strategy; Types of Capacity Development Approaches; Recording Success Indicators for Capacity Development	
Interrelated and/or Prerequisite Actions	Geospatial Coordination Unit (SP1); Specialist Working Groups (SP1); Governance Model (SP1); Design and Develop (SP2)	Data Sharing and Dissemination (SP2); Innovation Hubs (SP5); Potential Partners, Preliminary Screening and Initial Engagement (SP7)	Communication Strategy (SP9); Communication Plan (SP9); Stakeholder Identification (SP9)	
Outcomes	Broad geospatial awareness and capabilities at all levels; Increased adoption and application of geospatial technologies and processes	Stimulate creativity and innovative solutions to address real-world challenges, economic opportunities and growth, and wellbeing of society	Equipped with increasing knowledge, proficiencies and instincts in geography and geospatial sciences	

Communication and Engagement

|	Stakeholder and User Engagement	Strategic Messaging and Engagement	Communication Strategy, Plans and Methods	Monitoring and Evaluation
Guiding Principles	Trusted and Transparent; Personalize and Participatory	Inclusive and Impartial; Meaningful and Timely	Coordinated and Consistent; Purposeful and Effective	Adaptable and Responsive
Key Actions for Strengthening Geospatial Information Management	Providing Leadership — Engagement Strategy; Steering Group. Understanding Opportunities — Stakeholder Identification; Stakeholder Analysis	Setting Direction — Policy Platform; Geospatial Brand; Strategic Messages. Creating Plan of Action — Communication Strategy; Communication Plan; Communication Methods	Monitoring Progress — Review and Evaluate; Stakeholder Surveys. Communicating Value — Benefits Analysis; Lessons Learnt	
Tools to Assist in Completing the Actions	Categories of Stakeholders; Identifying and Classifying Stakeholders	Stakeholder Analysis Matrix; Stakeholder Analysis and Communication	Stakeholder Communication Plan; Communication Methods	Communication Methods – Advantages and Disadvantages; Review and Evaluation: Benchmarking
Interrelated and/or Prerequisite Actions	Geospatial Information Management Strategy (SP1); Specialist Working Groups (SP1)	Governing Board (SP1); Socio-Economic Impact Assessment (SP3)	Geospatial Coordination Unit (SP1); Benefits Realization Plan (SP3)	
Outcomes	Heightened Awareness and Active Engagement; Elevated Trust, Confidence and Increased Use of Geospatial Information	Engaged, Inclusive and Participatory	Positive and Beneficial Relationships; Increased Opportunities, Innovations and Accomplishments	

Integrated Geospatial Information Framework (IGIF)

- The IGIF focuses on geospatial information that is integrated with any other meaningful data to solve societal and environmental problems.

- The IGIF acts as a catalyst for economic growth and opportunity, and to provide understanding and benefit from a country's national development priorities and the SDGs.

- **The IGIF is <u>not</u> an infrastructure. It is a standalone 'framework', independent of an SDI and any other infrastructures.**

- **However, the IGIF fundamentally recognizes, builds substantially upon, and augments previous investments and achievements in planning and implementing SDIs and NSDIs.**

- The IGIF not only provides additional structure, reasoning, and evidence as to why SDI's are important, but also provides the guidance, options and actions to plan for, develop, and implement an <u>integrated</u> national geospatial information management program, aligned to national strategies priorities, and circumstances within a country.

Global Geospatial Frameworks
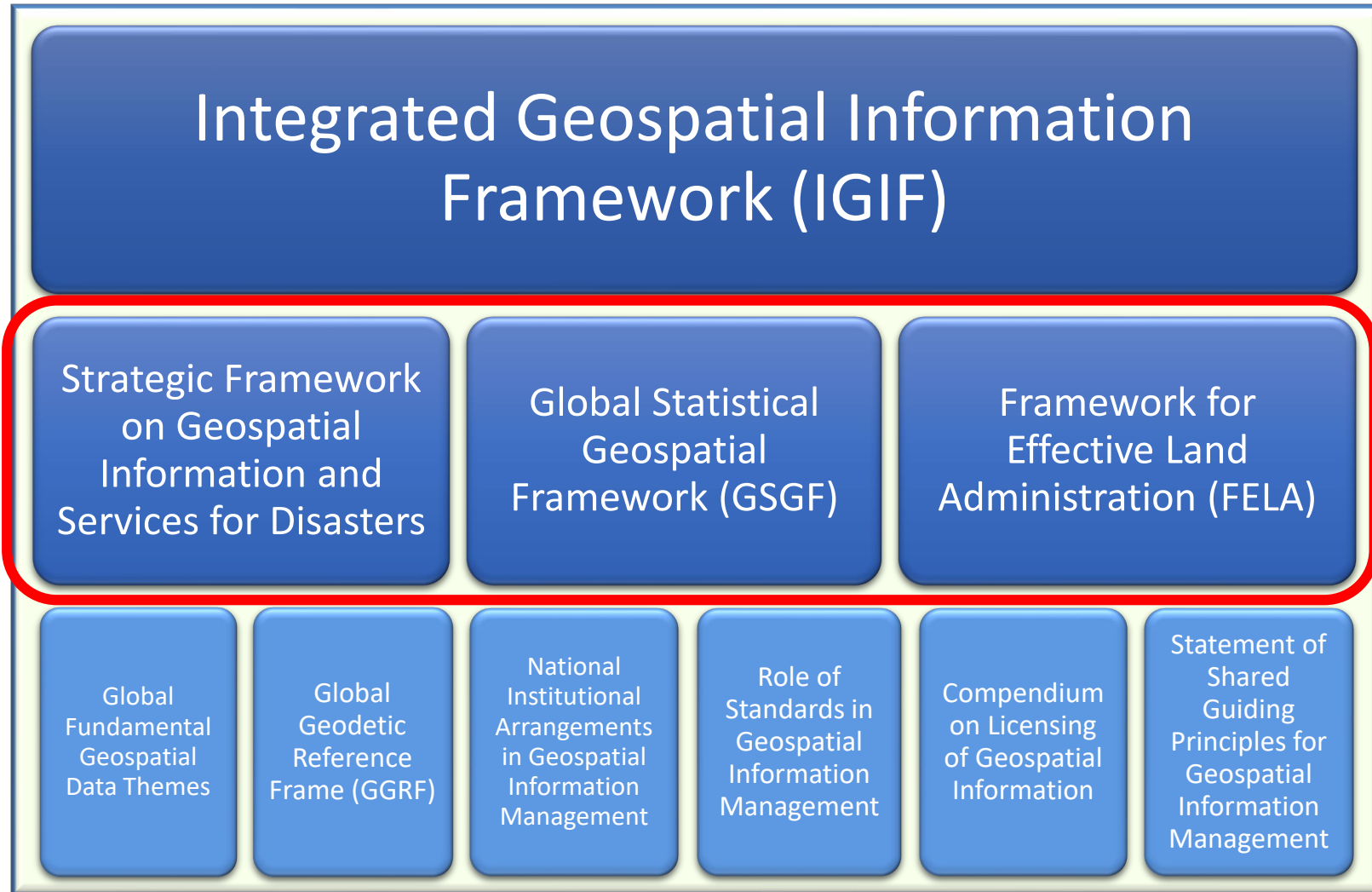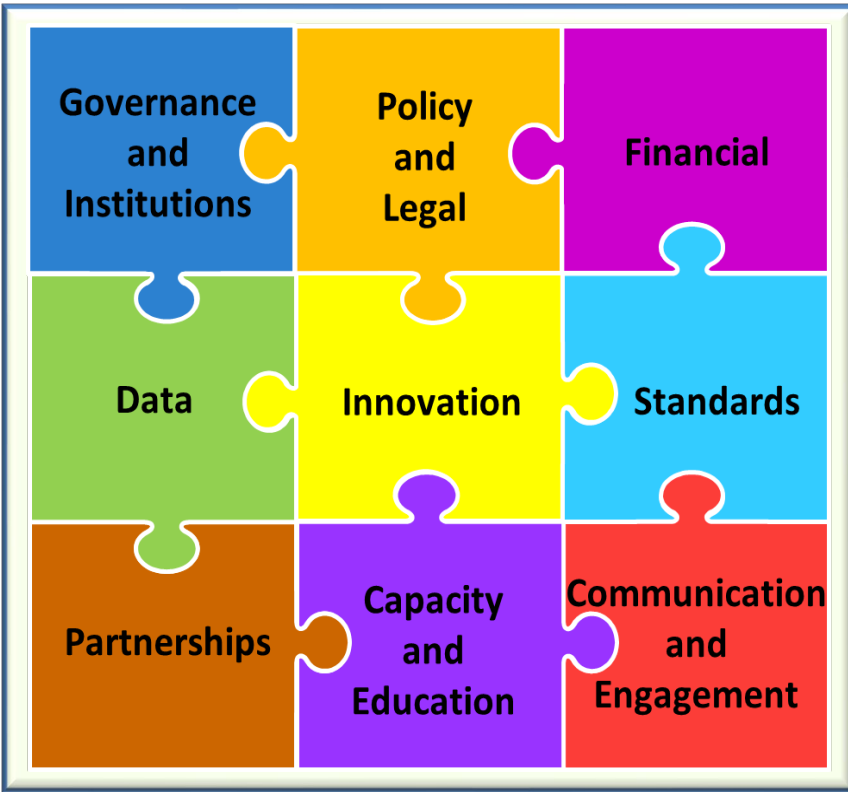
Governance and Institutions — **Policy and Legal** — **Financial**

Data — **Innovation** — **Standards**

Partnerships — **Capacity and Education** — **Communication and Engagement**

Integrated Geospatial Information Framework (IGIF)

Strategic Framework on Geospatial Information and Services for Disasters	Global Statistical Geospatial Framework (GSGF)	Framework for Effective Land Administration (FELA)

Global Fundamental Geospatial Data Themes	Global Geodetic Reference Frame (GGRF)	National Institutional Arrangements in Geospatial Information Management	Role of Standards in Geospatial Information Management	Compendium on Licensing of Geospatial Information	Statement of Shared Guiding Principles for Geospatial Information Management

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Strategic Framework on Geospatial Information and Services for Disasters

Scope and Purpose

The strategic framework aims to guide all stakeholders and partners in the management of geospatial information and services in all phases of disaster risk management

Expected Outcome

The social, economic, and environmental risks and impacts of disasters are prevented or reduced through the use of geospatial information and services

Goal

Quality geospatial information and services are available and accessible in a timely and coordinated way to support decision-making and operations within and among all stakeholders and partners and in all phases of disaster risk management

Priorities for Action

Member States with the support of regional and international organizations as well as other relevant organizations should focus their action on the following 5 priorities for action

Priority 1 Governance and Policies	Priority 2 Awareness Raising and Capacity Building	Priority 3 Data Management	Priority 4 Common Infrastructure and Services	Priority 5 Resource Mobilization
Policies, collaborative agreements and legal frameworks aiming at improving the availability and accessibility of quality geospatial information and services among all stakeholders and partners established and implemented in all phases of DRM	Awareness is raised among concerned entities on the importance of geospatial information and services and all necessary technical and human capacities are built and/or strengthened	Geospatial databases and information products are developed based on common standards, protocols and processes as important tools in every decision-making process across all phases of DRM	Common facilities and services are established for all key stakeholders and partners to have a common operational picture of emergency scenarios	All necessary technical, human and financial resources are available to sustain all the activities of DRM

Guiding Principles

The strategic framework is guided by the 2030 Agenda for Sustainable Development, International Strategy for Disaster Reduction, Sendai Framework for Disaster Risk Reduction (2015-2030), the UN-GGIM Global Statistical Geospatial Framework, UN General Assembly resolution on international cooperation on humanitarian assistance in the field of natural disasters, from relief to development and other relevant instruments. It is also guided by the principles of open data and requirements of national data infrastructure, and by the UN-GGIM's Statement of Shared Guiding Principles for the Management of Geospatial Information.

Puzzle pieces:
- Governance and Institutions
- Policy and Legal
- Financial
- Data
- Innovation
- Standards
- Partnerships
- Capacity and Education
- Communication and Engagement

WHAT specific actions need to be taken for implementation of the Strategic Framework, and HOW will the actions be carried out, WHEN and by WHOM?

VI. Implementation

34. Geospatial information and services contribute vastly to the overarching effort of preventing or reducing the social, economic, and environmental impacts of disasters. Thus, Member States and other stakeholders should prioritize a geospatially-oriented agenda in their respective development plans and programs.

35. Member States and other stakeholders should commit themselves to the full implementation of the priorities for action by improving their current capacities in providing geospatial information and services across all phases of DRM and actively promoting the goals of the five priorities for action, and translate the same into national implementation plans.

36. A participatory and inclusive approach in generating, improving and managing geospatial information should be employed by all entities involved in DRM efforts.

37. Managing geospatial information and services before, during and after disasters will require all Member States and other stakeholders to institutionalize good governance practices and science-based policies supported by improved capacities on human resource, infrastructure and geospatial data management, among others.

38. In support to the Sendai Framework for Disaster Risk Reduction (2015-2030), international cooperation should be recognized as a critical element in managing geospatial information and services before, during and after disasters, and thus implementing the provisions of the strategic framework. Adopting best practices and identifying champions among Member States will augment their existing capacities in using geospatial information and services across all phases of the DRM.

This Strategic Framework is not only timely in view of the increasing number and impact of disasters, but also contributes to the Member States' implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030.

Governance and Policies

Awareness Raising and Capacity Building

Data Management

Common Infrastructure and Services

Resource Mobilization

Refers to the framing, implementing and monitoring decisions to make available and accessible all quality geospatial information across all phases

Refers to human understanding

Refers to the comprehensive management and maintenance of data and

Specific activities
-
-
- Data

Refers to hardware, software management needed to improve geospatial services

Refers to human resources, as well as technical, financial and other forms of logistical and administration support

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Global Statistical Geospatial Framework (GSGF)

Governance and Institutions · Policy and Legal · Financial · Data · Innovation · Standards · Partnerships · Capacity and Education · Communication and Engagement
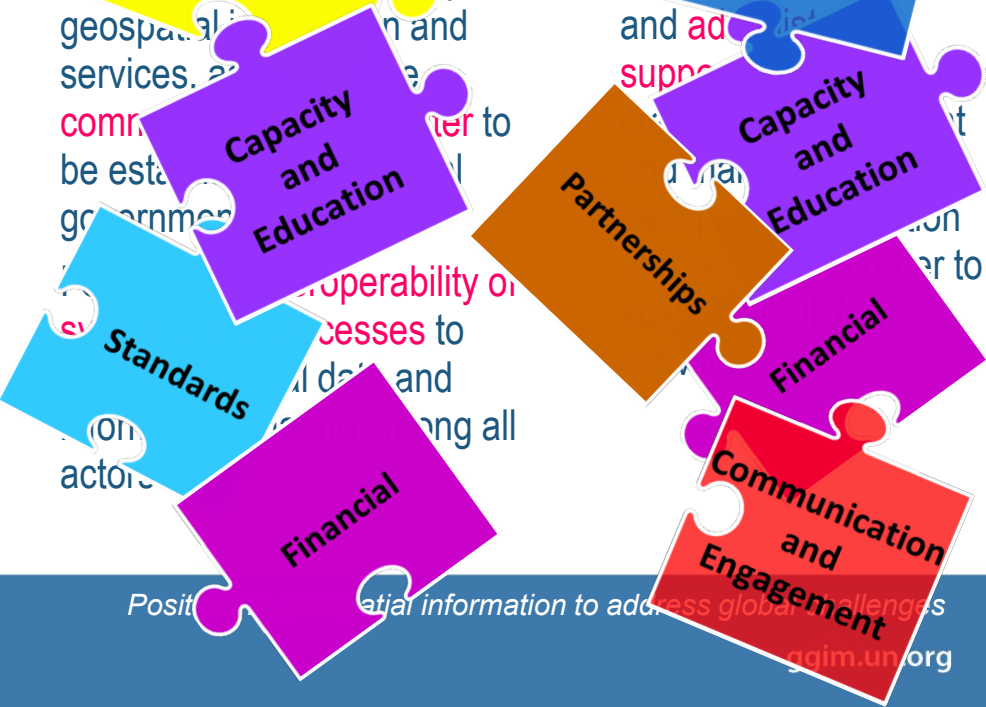
RULES or REQUIREMENTS

PRINCIPLES

Accessible & usable

Statistical and geospatial interoperability

Common geographies for dissemination of statistics

Geocoded unit record data in a data management environment

Use of fundamental geospatial infrastructure and geocoding

KEY ELEMENTS

Standards and Good Practices

National Laws and Policy

Technical Infrastructure

Institutional Collaboration

ENABLERS

INPUT

DATA

Geospatial
- Fundamental data
- Supplementary data
- New data sources

Statistical
- Censuses
- Surveys
- Administrative data records
- Big data and other sources

OUTPUT

Integration

Harmonised and standardised information

Interoperability Comparability

Analysis

Diffusion

Decision making

IMPLEMENTATION and ACTION

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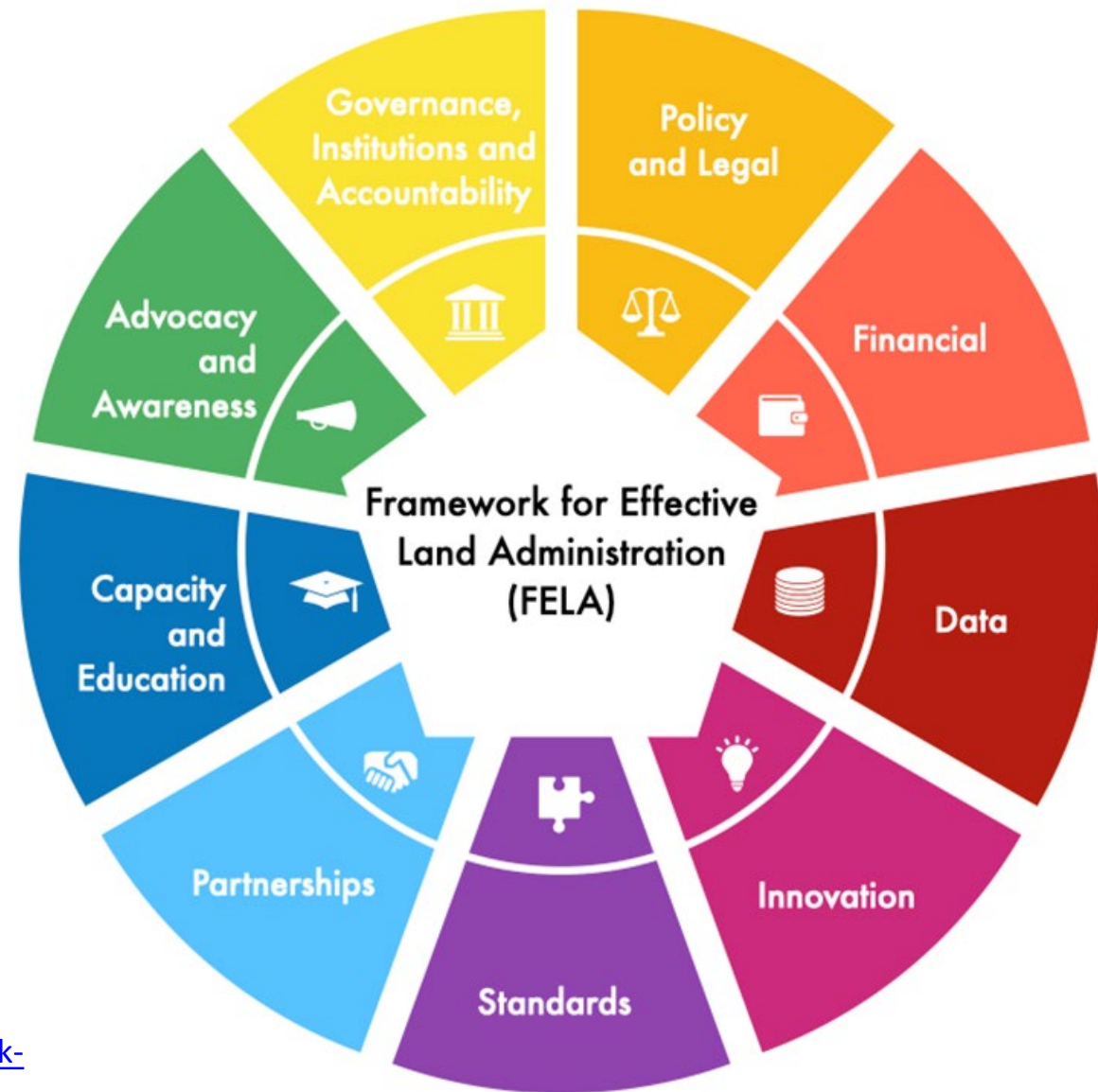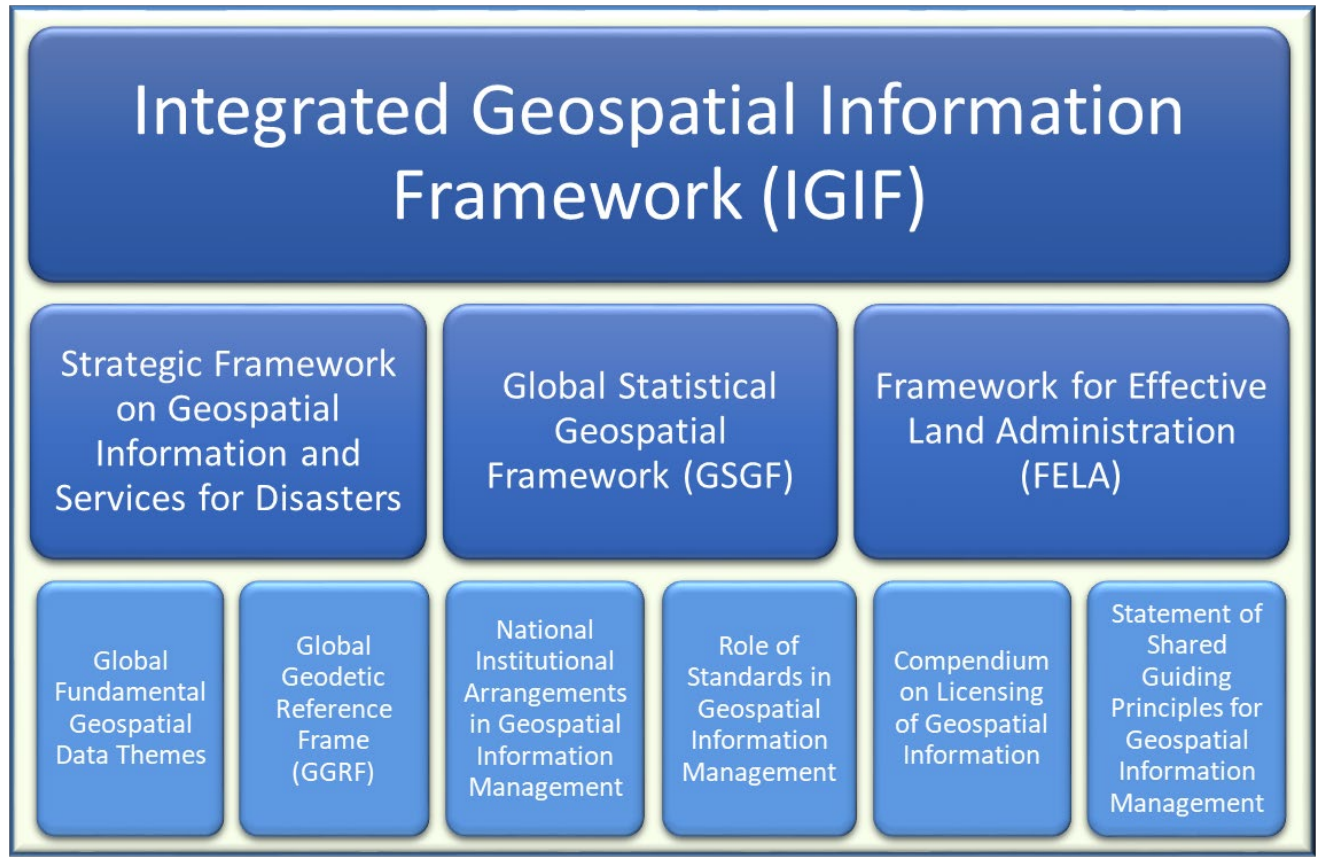*Positioning geospatial information to address global challenges*

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Global Statistical Geospatial Framework (GSGF)

Positioning geospatial information to address global challenges
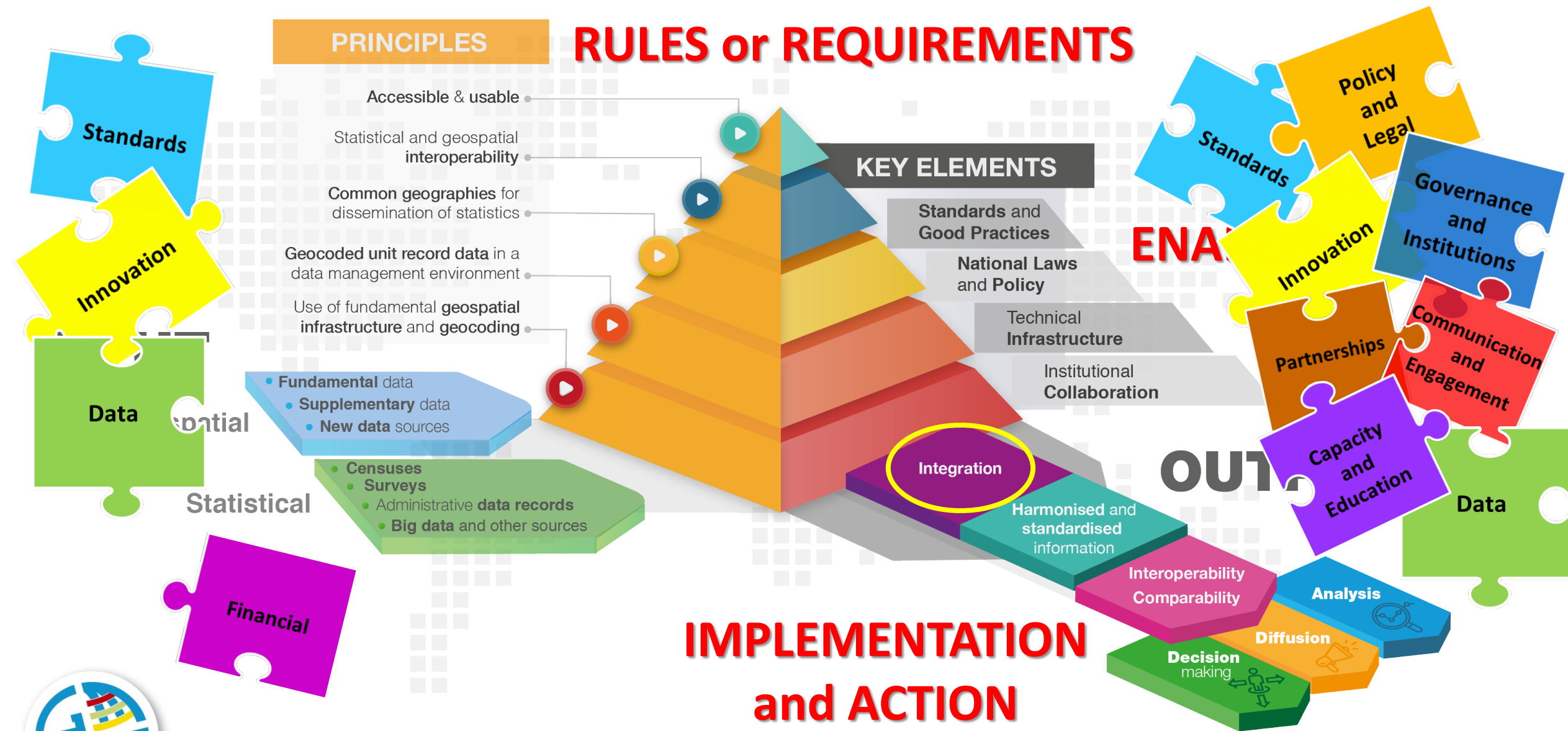
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Framework for Effective Land Administration (FELA)

http://ggim.un.org/meetings/GGIM-committee/10th-Session/documents/E-C.20-2020-29-Add_2-Framework-for-Effective-Land-Administration.pdf

"We see the value of the IGIF becoming a kind of umbrella over a number of underlying guidelines and frameworks developed under UN-GGIM over the last 10 years. It will be important to continue the good work to ensure that these processes converge and give special attention to consistency with other frameworks"

IGIF Implementation Guide, Global Consultation, June 2020

Integrated Geospatial Information Framework (IGIF)

Strategic Framework on Geospatial Information and Services for Disasters	Global Statistical Geospatial Framework (GSGF)	Framework for Effective Land Administration (FELA)

Global Fundamental Geospatial Data Themes	Global Geodetic Reference Frame (GGRF)	National Institutional Arrangements in Geospatial Information Management	Role of Standards in Geospatial Information Management	Compendium on Licensing of Geospatial Information	Statement of Shared Guiding Principles for Geospatial Information Management

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