

EFGS 2020 Webinar, 20-21 October 2020

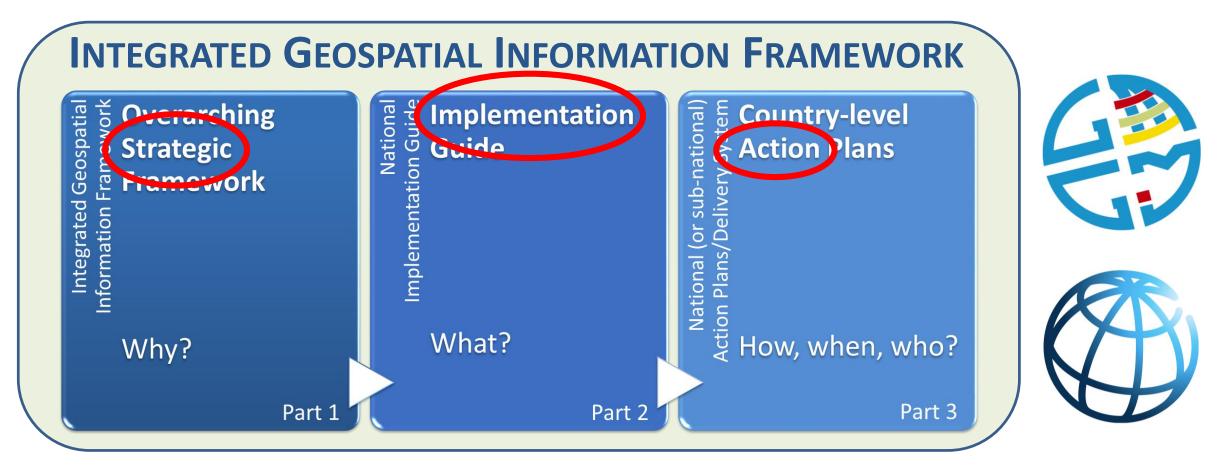
# The Integrated Geospatial Information Framework (IGIF) and the Global Statistical Geospatial Framework (GSGF)

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- 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.



#### **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

#### GOALS

Effective Geospatial Information Management

Sustainable Education and Training Programs Increased Capacity, Capability and Knowledge Transfer

International Cooperation and Partnerships Leveraged

Integrated Geospatial Information Systems and Services

Enhanced National Engagement and Communication

Economic Return on Investment

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.



The 7 Principles are

and values that

the key characteristics

provide the compass

for implementing the

Framework, and allow

for methods to be tailored to individual

country needs and

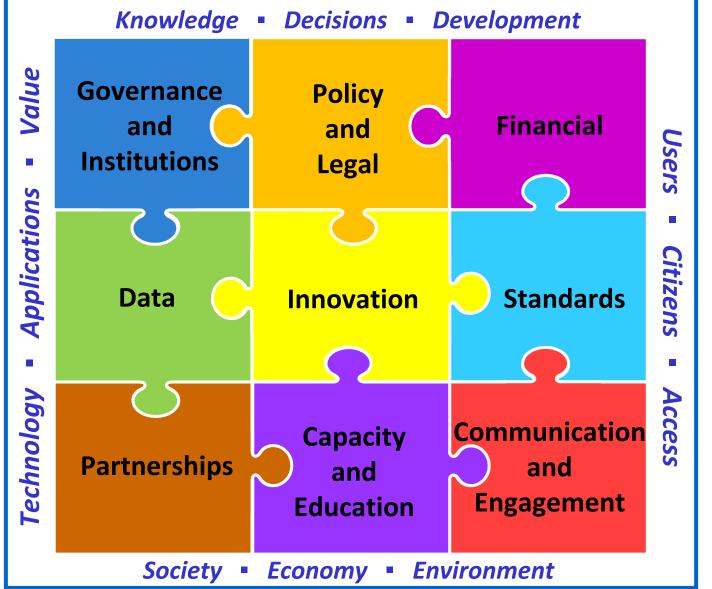
circumstances.

## 9 Strategic Pathways

Governance \_\_\_\_

Technology \_\_\_\_

People





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.

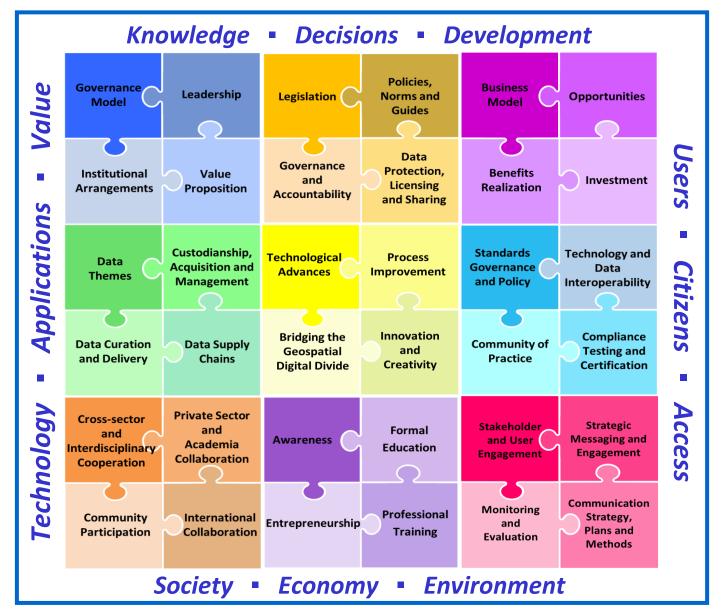


## 36 Key Elements

Governance |

Technology

People





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4.5	OF Cuidonos	Elements of Governance and Institutions	Governance Model	eadership Value Propo	Institutional Arrangements	Elements of Policy and Legal	Legislation	Norms and L	Protection, icensing and d Sharing Accountability	Elements of Financial	Business Model	Opportunities Invest	tment Benefits Realization	Elements of Data	Data Themes	Custodianship, Data Acquisition and Ch Management	
135 Guidance Actions for		Guiding Principles	Facilitate Strategic Outlook Credibility Participatory	Open and Transparent Accountability Guidance Clarity	Project Management Oversight Communication and Evaluation Legal Interoperability	Guiding Principles	Available and Compatible Accessible and Equitable	Stewardship and Tr Strategic and Respon Optimize Value and Res Secure and Safeguar	Responsive Policy Coherence and Legal Interoperability	Guiding Principles	Adherence Accountable Transparent	Leadership Responsive Credible	Collaborative Stewardship Sustainable Sources of Funding	Guiding Principles	Governance Consistent Identification Quality Management	Metadata Author Standards Timel Accessibility Prove eusable Formats Inter	iness Efficiency nance Security
Implementation		Key Actions for Strengthening Geospatial Information Management	Forming the Leadership Governing Board Geospatial Coordination Unit(s) Specialist Working Groups Establishing	Setting Direction Strategic Alignment Study Geospatial Information Management Strategy  Creating a Plan of	Tracking Success Monitoring and Evaluation Success Indicators  Deriving Value	Key Actions for Strengthening Geospatial Information Management	Providing Leadership  Review Group	Addressing Opportunities Design and Devel Data Sharing an Dissemination Licensing Geospal	d Privacy and Data Protection	Key Actions for Strengthening Geospatial Information Management	Setting Direction Financial Governanc Financial Accountabili  Situational Assessme Current Operating Environment	Desired Business Model Financial Planning  Case for Investment Socio-Economic Impact Assessment	Sources of Funding Sources of Funding Strategic Opportunities  Deriving Value Benefits Realization Communicate Benefits	Key Actions for Strengthening Geospatial Information Management	Getting Organized Data Framework Data Inventory Dataset Profiles	Capturing and Acquiring Data Data Capture Data Acquisition Program  Managing Data Sustainab	Positioning  Maintained Geodetic
Governa and Institut	and Financial	Tools to Assist	Accountability Governance Model	Action Change Strategy Country-level Action Plan  Guidance for Vision,	Value Proposition Statement		Assessing Needs Review and Assessment Gaps and Opportunities Analysis	Future-Proofin	Sensitive Information  Delivering Compliance	Tools to Assist in Completing	Current Business Mod Data Policy Public Good  IGIF 'Current and Desired Future' Dua	Investment Appraisal Annual Budget Business Model Canvas	Components of a Business Case	Tools to Assist	Data Gap Analysis Data Theme Road Map	Maintained Metadata Data Release Storage/Retrieval Systems  Data Theme Road Map	Geospatial/Statistical Integration Geocoding and Aggregation Data Supply Chains Data Interoperability  Metadata Creation Checklist
Data	a Innovation Standards	in Completing the Actions	Steering Committee Charter Example Strategic Alignment Template	Mission and Goal Statements Country-level Action Plan Template	Monitoring and Evaluation Template Success Indicators Example	Tools to Assist in Completing the Actions	Common Legal Terms Review and Assessment Considerations Review and Assessment Questions	Use Case Examp Gaps and Opportur Analysis Gap Analysis Mat Policy and Lega Instruments	Managing Intellectual rix Property Rights	the Actions	response Survey IGIF Baseline Surve World Bank/FAO SD Diagnostic Tool	Model – Some Considerations  Geospatial Program Budg  Social Economic Impact	Developing an Annual Budget – Considerations et Possible Financing Models	in Completing the Actions	Data Themes Data Theme Descriptio Data Inventory Questionnaire Dataset Profile Templat Gap Analysis Matrix	Policy Principles Data Governance Roles	Data Release Guidelines Guidance for Improving Geodetic Infrastructure Global Statistical Geospatial Framework Geospatial/Statistical Integration
Partner	Capacity Communication	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)	Interrelated and/or Prerequisite Actions	Governing Board (SP1)  Geospatial  Coordination Unit (SP1	Geospatial Inform Management Str (SP1) Specialist Worl Groups (SP1	stakeholders (SP9)  king Stakeholder Analysis	Interrelated and/or Prerequisite Actions	Governing Board (S Geospatial Coordina Unit (SP1) Governance Model Specialist Working G (SP1)	ation Review Group (SP2)  Country-level Action Plan (SP1)  Data Sharing and	Geospatial Information Management Strategy (SP1) Strategic Alignment Study (SP1) Communication Strategy (SP9)	Interrelated and/or Prerequisite Actions	Geospatial Strategy (Si Country-level Action Pi (SP1) Governance Model (Si Geospatial Steering Committee (SP1)	an Coordination Unit (SP1) Policy Framework (SP2)	Storage Solutions (SP5) Metadata Standards (SP6) Establishing Partnerships (SP7) s Identify Key Stakeholders (SP9)
Turtilei	Education Engagement	Outcomes	Strengthened Leadership, Institutional Mandates and Political Buy-in	Efficient Planning and Coordination Geospatial Information is Valued	Cooperative Data Sharing	Outcomes	Sound and Enabling Poli and Legal Environmen Maximizes Utility of Geospatial Information with Safeguards	t Responsibilities Cla Strengthened	rified Management and Applications d Responsive to Changes	Outcomes		New funding Financial ac initiatives of costs as dentified to meet ational geospatial information priorities Financial ac of costs as dentified to meet with all asy national george.	sociated value of geospatial pects of information is eospatial defined, and aligned ation to financial plan to	Outcomes	Increased Range and Scope of Authoritative Data		Measure Progress Towards Achieving the
Elements of Innovation	Technological Advances Innovation and Creativity Improvement Geospatial Digital Divide	Elements of Standards	Governance ar	chnology Compliar nd Data Testing a roperability Certificat	nd of Practice	Elements of Partnerships	Interdisciplinary ar		ernational Community Participation	Elements of Capacity and Education	Awareness	Formal Profes Education Train		Elements of Communication and Engagement	Stakeholder and User Engagement	Strategic Commu Messaging and Strateg Engagement and M	, Plans Evaluation
Guiding Principles	Leadership Digital Literacy Empowerment Trust Collaboration Supportive Policies Digital Enablement User Centric	Guiding Principles	Leadership Compliance Governance Engagement	Collaborative Modernized Practice Interoperability Scalable	Usability Responsive Extensible Open and Accessible	Guiding Principles	Mutual Respect, Trust and Understanding Leadership, Commitment and Empowerment	Shared Vision and Goals Learning and Development Transparency ar Communicatio	Clarity and Realism of Purpose and Scope Performance Management and	Guiding Principles	Responsible Relevant Responsive	Objective Collaborate Coordii Holistic Resili	nated Sustainable	Guiding Principles	Trusted and Transparent Personalize Participate		
Key Actions for Strengthening Geospatial Information Management	Geospatial Landscape Innovation Group Technology Maturity Indeex Strategic Alignment Calling Infrastructure Innovation Needs Monitoring Treats Monitoring Tr	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 Gao 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	Key Actions for Strengthening Geospatial Information Management	Understanding Partnerships Need for Partnership Types of Partnership Evaluating Opportunities Partnership Opportunities Selection Criteria	Identifying Potent Partners Potential Partner Preliminary Screen Initial Engagement Selecting Partner Options and Operati	Partnership Establishing Agreement Communication Plan Governance Structure  Managing Partnership Reporting and Accountability Review and Evaluation	Key Actions for Strengthening Geospatial Information Management	Setting Direction Capacity and Educatic Working Group Target Groups  Assessing Needs Inventory of Knowled, Skills and Resources Assessments and Analy	Alternatives Capacity Development and Education Strategy  Planning for Action Approaches Implementation Plan Reviewing Existing Program	Taking Actions Community of Practice Innovation Hubs and Incubators Geospatial industry Challenges Geography in Schools Scholarships and Internships The Assessing Value Monitor and Evaluate	Key Actions for Strengthening Geospatial Information Management	Providing Leadership Engagement Strategy Steering Group Internal Communication Understanding Opportunities Stakeholder Identification	Setting Direction Policy Platform Geospatial Brand Strategic Messages  Creating Plan of Action Communication Strateg Communication Plan	Monitoring Progress Review and Evaluate Stakeholder Surveys  Communicating Value Benefits Analysis Lessons Learnt
Tools to Assist in Completing the Actions	Assessment  Culture  Systems  Systems  PEST and SWOT Analyses Maturity Index Capability Framework Matrix Geospatial Drivers and Trends ICT Data Inventory Approaches  Culture  Systems  Data Storage Processes Pillars of an Innovation Program Critical Path Analysis Open SDG Data Hubs	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	Tools to Assist in Completing the Actions	Stakeholder Identification and Analysis Types of Partne	Evaluation of Poter Partners Success Ind	ntial Communication Plan	Tools to Assist in Completing the Actions	Knowledge-Skills- Resource Matrices f Organizations and Teams Capacity Scanning Matrix	for Assessment/Analysis Gap Analysis Approach to Needs Assessment/Analysis	Typical Components of a Capacity Development and Education Strategy Types of Capacity Development Approaches Recording Success Indicators for Capacity Development	Tools to Assist in Completing the Actions	Identifying and Classifying	Stakeholder Stakeholder Communication Stakeholder Stakeholder Plan Stakeholder Analysis and Communication Method:	ion Methods – Advantages and Disadvantages ion Review and Evaluation:
Interrelated and/or Prerequisite Actions	Governing Board (SP1) Governance Model (SP1) Specialist Working Groups (SP1) Data Gap Analysis (SP4) Data Gap Analysis (SP4) Governance Model Coordination Unit (SP1) Data Inventory (SP4) Geospatial Information Geospatial Information Magaement Strategy Geospatial Information	Interrelated and/or Prerequisite Actions	Governing Board (SP1) Geospatial Information Coordination Unit (SP1) Specialist Working Groups (SP1) Benefits Realization Plan (SP3)	Data Inventory Template (SP4) Data Inventory Questionnaire (SP4)	Join/Build a Community of Practice/Capacity Building Methods (SP8) Communication Plan (SP9)	Interrelated and/or Prerequisite Actions	Geospatial Information Management Strategy (SI Policy and Legal Review a Assessment (SP2) Sources of Funding; Business Case (SP3) Data Gap Analysis (SP4	Program; Date Governance; Stora Retrieval System; Release (SP4) Data Acquisition	a System; New Product and ge and Services (SP5) Data Capacity Needs Assessment (SP8)		Geospatial Coordina Unit (SP1) Specialist Workin Groups (SP1) Governance Model ( Design and Develop (	Dissemination (SP2) Dissemination (SP2) Dissemination (SP2) Dissemination (SP2) Potential Partners, (SP1) Preliminary Screening	) Strategy (SP9)  5) Communication Plan (SP9)  and Stakeholder	Interrelated and/or Prerequisite Actions	Geospatial Informat Management Strate (SP1) Specialist Worki Groups (SP1)	gy (SP1) Socio-Economic	Geospatial Coordination Unit (SP1) Benefits Realization Plan (SP3)
Outcomes	Improved Processes for Data Collection, Management, Analysis and Distribution Improved Decision—Making Improved Decision—Making Innovative Worldorce	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	Outcomes	Increased Development Capacity Expanded Capability		end Enhanced Organizational From Knowledge, Expertise and Proficiencies	Outcomes	Broad geospatial awareness and capabilities at all le Increased adoption application of geosp technologies and processes	innovative solutions to address real-world and challenges, economic	Equipped with increasing knowledge, proficiencies and	Outcomes	Heightened Awarene and Active Engageme Elevated Trust, and Increase Geospatial In	Confidence In	Positive and Beneficial Relationships creased Opportunities, Innovations and Accomplishments

### Global Development **Frameworks**

## 2030 Agenda for Sustainable Development

Sendai Framework for Disaster Risk Reduction 2015-2030

SAMOA Pathway for SIDS

Action Agenda

Addis Ababa

HABITAT III **New Urban** Agenda

Paris Agreement on

Climate Change

Our Ocean, Our Future: Call for Action

## Global Geospatial **Frameworks**

## 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 **Data Themes** 

Global Geodetic Reference Frame (GGRF)

**National** Institutional **Arrangements** in Geospatial Information Management

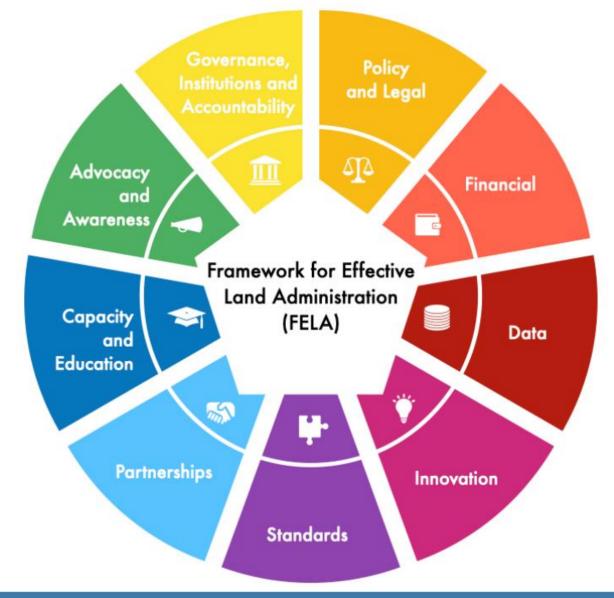
Role of Compendium Standards in on Licensing Geospatial of Geospatial Information Information Management

Statement of Shared Guiding Principles for Geospatial Information Management



### Framework for Effective Land Administration (FELA)

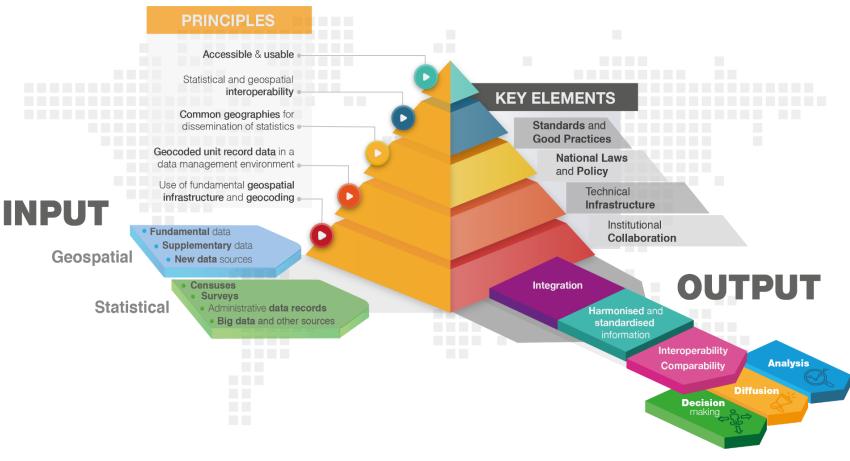






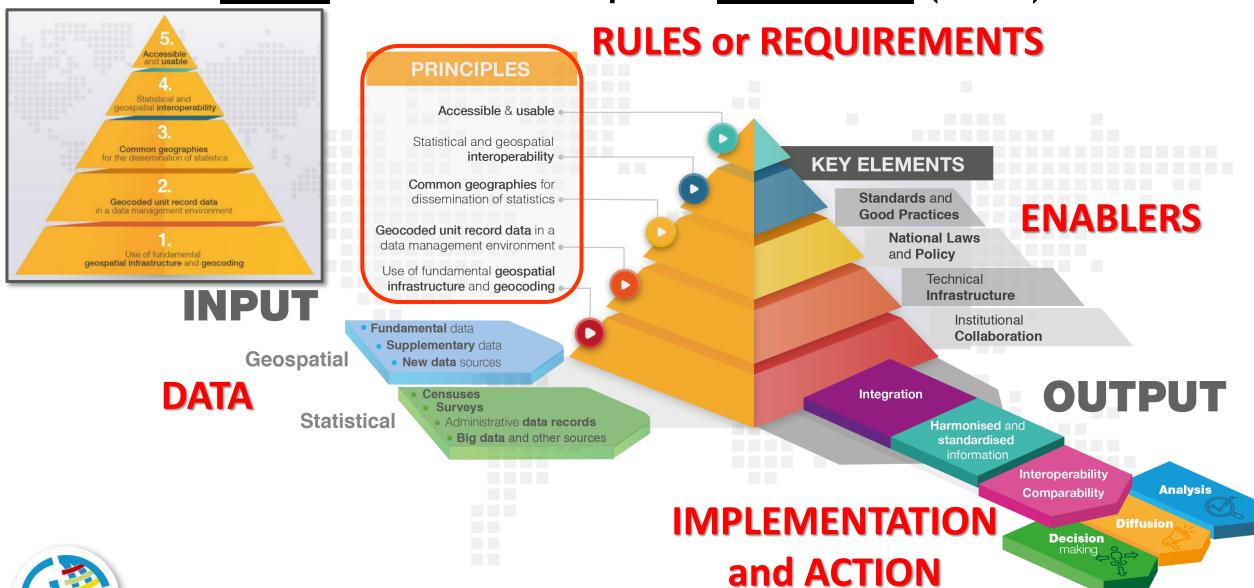
## Global Statistical Geospatial Framework (GSGF)







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**UN-GGIM** 

#### Global Statistical Geospatial Framework (GSGF) **RULES or REQUIREMENTS PRINCIPLES** Policy Accessible & usable and Standards Statistical and geospatial interoperability **KEY ELEMENTS** Governance Common geographies for Standards and dissemination of statistics and **Good Practices** Institutions **ENA** Geocoded unit record data in a **National Laws** data management environment and Policy Use of fundamental geospatial Communication Technical infrastructure and geocoding Infrastructure **Partnerships** Engagement Institutional Fundamental data Collaboration Supplementary data **Spatial** Capacity New data sources and Education Integration Censuses Surveys **Statistical Data** Administrative data records **larmonised** and Big data and other sources standardised Interoperability **Analysis** Comparability Financial

IMPLEMENTATION and ACTION

Positioning geospatial information to address global challenges

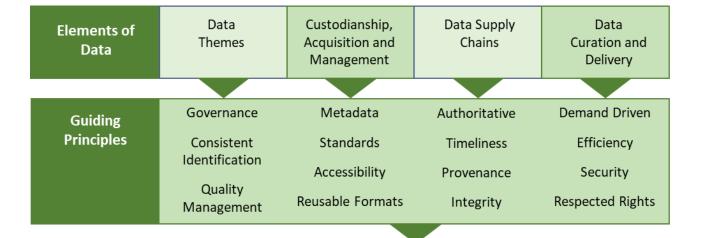
**Diffusion** 

**Decision** making

Standards

**Data** 

**UN-GGIM** 



**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** 

#### Managing Data Sustainably

Custodianship Policy Data Governance Data Management Maintained Metadata Data Release Storage/Retrieval Systems

#### **Maintaining Accurate** Positioning

Maintained Geodetic Infrastructure

#### **Integrating Data**

Geospatial/Statistical Integration Geocoding and Aggregation Data Supply Chains Data Interoperability

**Tools to Assist** in Completing the Actions

UN-GGIM

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

#### **Getting Organized**

Data Framework Data Inventory **Dataset Profiles** 



Fundamental Geospatial Data **Themes** Data Theme Description Template Data Inventory Questionnaire Dataset Profile Template



Geospatial Strategy (SP1) Data Standards (SP6)

#### **Planning for** the Future



Data Gap Analysis Data Theme Road Map



Gap Analysis Matrix Data Theme Road Map Template



Geospatial Strategy (SP1) Country-level Action Plan (SP1) Identify Key Stakeholders (SP9)

#### **Integrating Data**



Geospatial and Statistical Integration Geocoding and Aggregation Data Supply Chains Data Interoperability



Global Statistical Geospatial Framework Guidance for Geospatial and Statistical Integration



Identify Key Stakeholders (SP9) Data Partnerships (SP7)

#### **Maintaining** Accurate **Positioning**



Maintained Geodetic Infrastructure



Guidance for Improving Geodetic Infrastructure

**ACTIONS** 

#### **Capturing and Acquiring Data**



Data Capture Data Acquisition Program



New Data Capture Methods (SP5) Data Partnerships (SP7)

#### **Managing Data** Sustainably



Data Custodianship Policy and



Data Management Plan Maintained Metadata

Data Release

Data Storage and Retrieval Systems



Data Custodianship Policy Example Data Governance Roles and Responsibilities Example Data Management Plan Elements Metadata Creation Checklist Data Release Guidelines



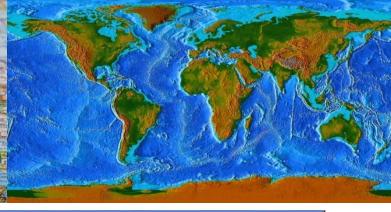
Governance Model (SP1) Geospatial Steering Committee (SP1) Geospatial Information Coordination Unit (SP1) Licensing Models (SP2) Metadata Standards (SP6) Storage Solutions (SP5)

Positioning geospatial information to address global challenges

Transforming our world -The 2030 Agenda for Sustainable Development







"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
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Role of
Standards in
Geospatial
Information
Management

Compendium on Licensing of Geospatial Information Statement of Shared Guiding Principles for Geospatial Information Management

