

# Powering the FIS4SDGs

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# Integration of Statistical and Geospatial Data

Global  
Statistical  
Geospatial  
Framework  
(GSGF)



Statistical Process Model (GSBPM)

Planning/  
Pre Enumeration

Enumeration

Post Enumeration/  
Dissemination

Usable

Interoperable

Common Geographies

Geocoded Units

Fundamental Geospatial Infrastructure

Specify  
Needs

Design  
Build

Collect  
Process  
Analyze

Disseminate  
Evaluate

Quality / Metadata Management



## An Integrated Data Model is Essential

## Census Data

## Nested Administrative Hierarchy

## Districts

## Enumeration Areas

EA Id	Area
1203501750071	42.3
1203501750072	34.8
1203501750073	26.9
1203501750074	51.2

EA Id	Population	Male	Female
1203501750071	432	209	223
1203501750072	502	240	262
1203501750073	525	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



# GIS Provides a Platform

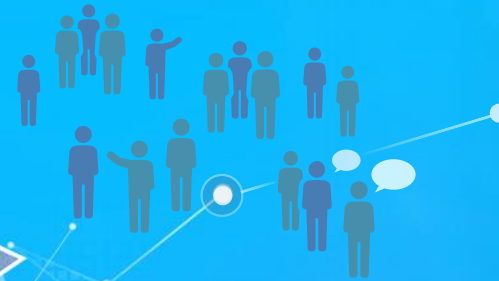
For Managing, Analyzing, and Applying  
Geographic, Statistical & Imagery Information

Integrating People,  
Processes, Things,  
and Data About Them

System of  
Record



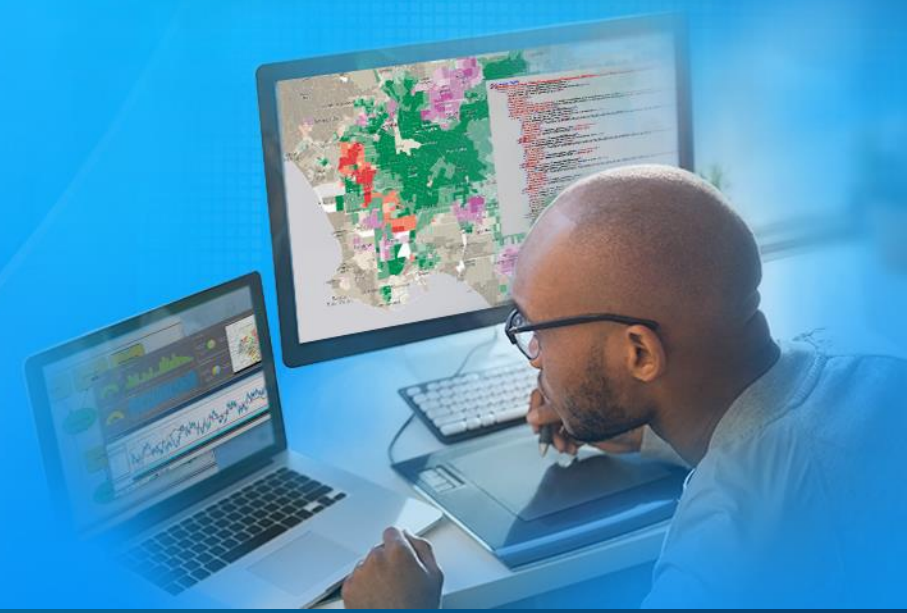
System of  
Engagement



System of  
Insight



Using the Power of Where  
to Integrate Everything





# Information Systems are Becoming Distributed

A New Architecture Is Emerging

Enabling integrated  
collaboration and  
coordination

Dynamic  
Systems-of-Systems



*Enabled by Portals . . .  
. . . Abstracting Distributed Data and Analytics*



# New Types of Data Collaborations Are Emerging

Connecting Individuals, Organizations and Communities



... Creating a Nervous System for People and Planet  
and a Means to Measure and Monitor Progress...

# Web GIS Simplifies Working With All Types of Data

Using Web Maps, Scenes, and Layers

Creating  
A Common Language

Apps

Distributed

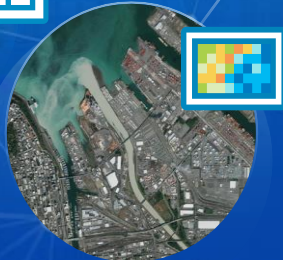
Portal



Map



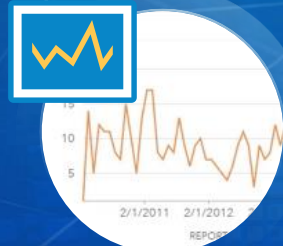
Tabular



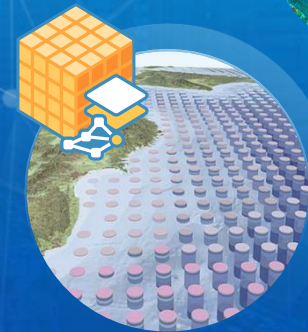
Imagery



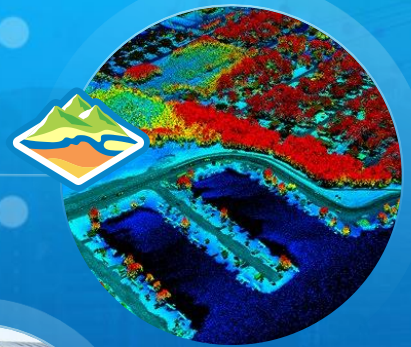
3D



Real-Time  
(IoT)



Big Data



Lidar



# Providing the Integrating Framework and Processes

For Enabling a Smarter World



Data Collection  
and Development

Data Integration,  
Sharing and  
Management

Geo-Statistical  
Analytics  
and Modeling

Action and  
Outcomes

Stakeholder  
Engagement

Planning and  
Decision-Making

*Transforming How We Think and Act . . .  
. . . Creating a More Sustainable Future*

Delivering

Collaborating

Informing

Understanding



*GIS Provides the Means . . .*



*. . . For Creating  
Federated Systems*





# The UN with Member States have Developed a Federated System for the SDG's

- Country-owned, Country-led system of systems
- Global data coverage
- Supporting the Monitoring and Reporting of the SDGs
- 2 phases done – call for phase 3





# Case Studies

Kenya, Tanzania, Senegal





