

**SMART LAND ADMINISTRATION AND
GEOSPATIAL INFORMATION MANAGEMENT:
*FOUNDATIONS FOR SMART CITY DEVELOPMENT***



WORLD BANK GROUP

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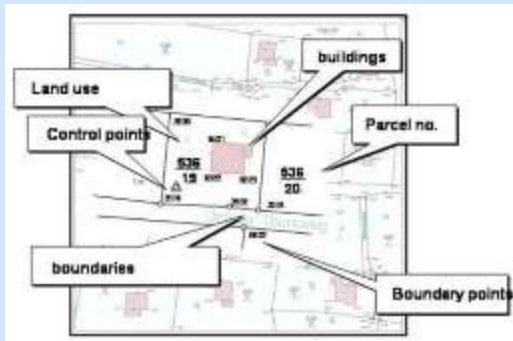
Global Land and Geospatial Unit

Land Administration + Geospatial Information = Building Blocks for Smart Cities

Paradigm Shift Underway

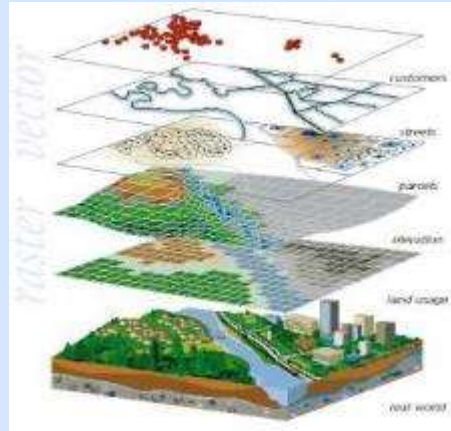
Real Time Integrated 3D/4D Information: Digital Twin

Flat maps



Past

Multi-dimensions



Present



Future

The Basics: Land and Location as Information Integrators



Private Land



Road Network



State Land



Utilities



Building Register

Geospatial Information managed by different organisations



Private Land

State Land

Building Register

Road Network

Utilities

Integrated Geospatial Information

Images courtesy Landgate

Cadastral/Land Registry is Basis for 3D and 4D Land Management

“Digital cadastre is the basis for Smart City development...” quote from Seoul City Gov’t official

Current, Accurate, and Complete Digital Cadastre:

- * Urban and Rural
- * Land and Buildings
- * State/Public and Private



Challenge: Currency, Accuracy and Completeness of Maps

Approx. 70% of the world's population do not have their land rights secured, mapped or registered



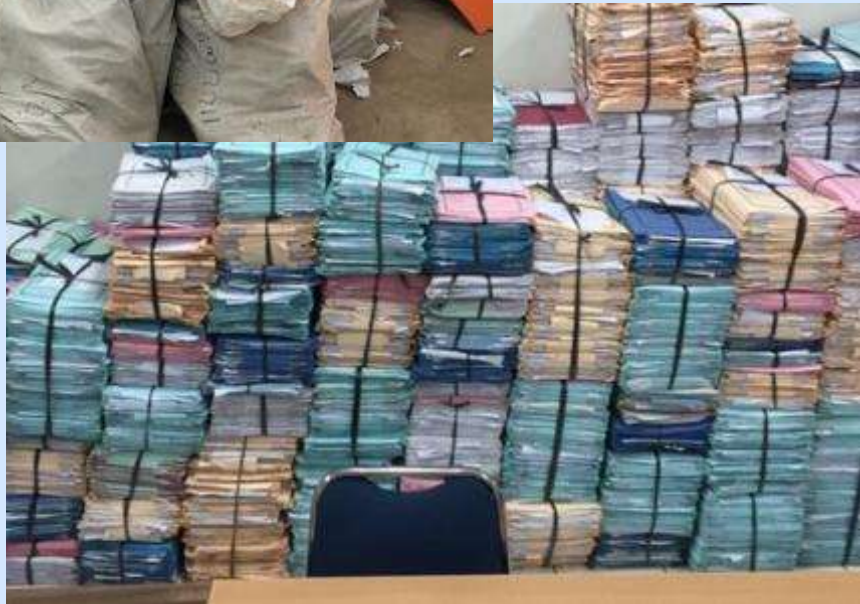
Paper maps in poor condition



Maps do not reflect the reality

Challenge: Registry and Archives

Where are my property documents?



Moving from Paper to Digital Information



Integrating Geospatial Information: Spatial Data Infrastructure

Well established business lines exist for traditional infrastructure



Energy



Transport



*Data requires a new infrastructure
- A **Spatial Data Infrastructure (SDI)***

Significant financing is needed for SDI: Data Capture and Integration

Strategic Partnerships for Global Geospatial Information Management

United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM)



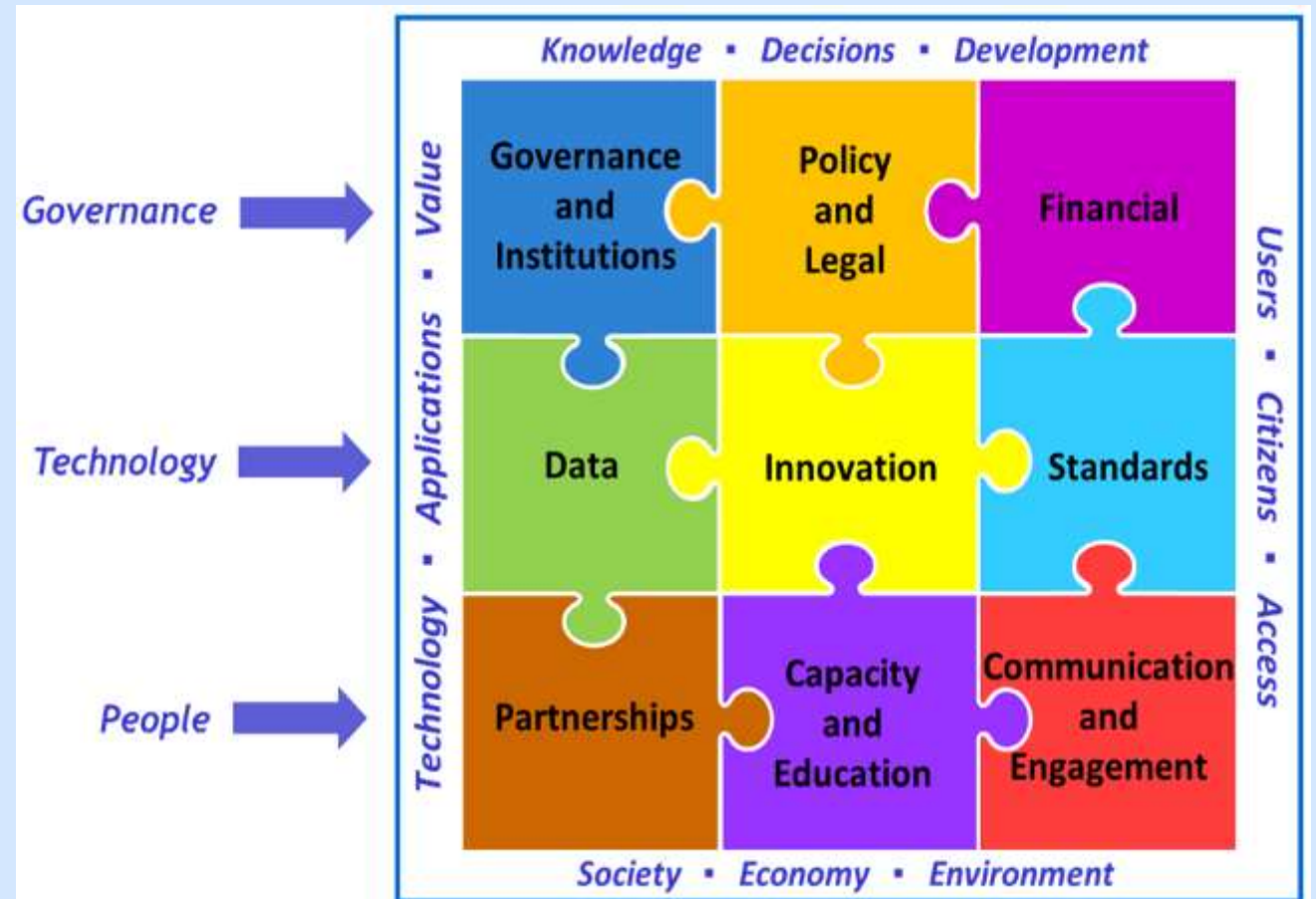
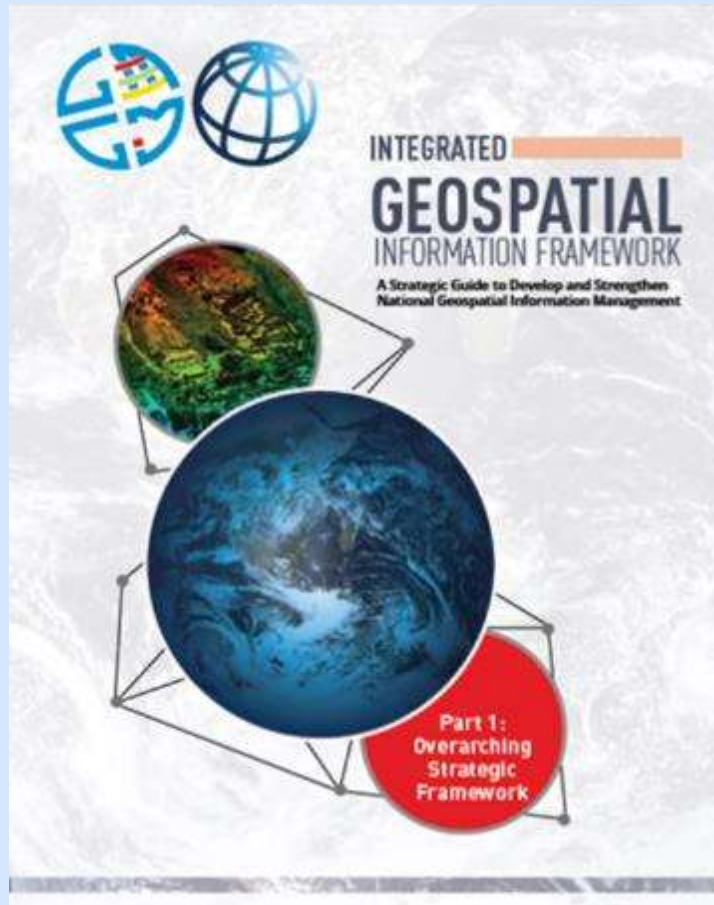
*First Session of UN-GGIM
October 2011
Seoul, Korea*



**World Bank-UNGGIM Agreement
“Bridging the Geospatial Digital Divide”
Signed August 2017**

Joint WB-UN: Integrated Geospatial Information Framework (IGIF)

The IGIF was **adopted by member states in August 2018**. It provides a holistic view of geospatial information management through 9 Strategic Pathways.



Country Level Implementation: IGIF Action and Investment Plans

Completed Pilots	In Progress/Planned (with Funding Source)		*Korean Support*
<p>Albania (WB) Palestine (WB) Guyana (FAO)</p> <p>Municipal Level: Tirana, Albania (WB)</p> <p>2018</p>	<p>Burkina Faso (UNSD) Colombia (WB) Ethiopia (UNSD) Fiji (UNSD) Georgia (Norway) Kyrgyz Republic (Norway) Moldova (Norway)</p>	<p>Nepal (UNSD) Nicaragua (WB) Seychelles (WB) Serbia (WB-FAO) Tonga (UNSD) Ukraine (Norway)</p> <p>2019...</p>	<p>Cambodia Mongolia Philippines Vietnam</p>  <p>2020</p>



Capacity Building: Korean Program for Operational Knowledge (K-POK)

IGIF eLearning Program

May, 2020

~~February 2020~~ Face to Face Learning for **7 countries and WB Teams**





Thank you!

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December 2013