Singapore Geospatial Collaborative Environment (SG-SPACE)

- the journey towards a spatially enabled Singapore

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Singapore National Spatial Data Infrastructure

Where are we now?

Where are we going?

How do we get there?
User Need Assessment (UNA) Survey

Data Needs
- **83%** of agencies have **needs** for spatial data
- **35%** of agencies are **supported** by Geographic Information Systems (GIS)

Data Sharing
- **40%** of existing spatial data layers are available for sharing by agencies
- Data users are **unaware** of data that is available and there is a **lack** of information **sharing protocol**

Standardisation
- **22%** of spatial data layers adopt recognised **Metadata standards**
Services & Applications within Public Sector

- **Land & Infrastructure Planning**
  - SLA, URA, LTA, JTC, HDB

- **Environment & Public Health**
  - NEA, AVA

- **Transportation**
  - LTA, MPA, CAAS

- **Defence & Security**
  - SPF, SCDF, Prison, DSTA, MU

- **Parks Management**
  - NParks

- **Community Development**
  - PA, NCSS

- **Utilities Management**
  - PUB

- **Health**
  - MOH

- **Others**
  - IRAS, ELD, MOE, DOS
Uniform Spatial Reference System

SiReNT

Integrated Survey Network Singapore

SSEK-Senoko

SNTU-NTU
Data Sharing Portal

Land Data Hub - LandNET

• One-stop land data resource centre
• Pools land data from government agencies
• Eliminates needs for bilateral data exchange between agencies
We have the data and the basic infrastructure.

But, we need more...
Collection → Storage & Retrieval → Application

Data Flow

Data Supplier

SG-SPACE

Clearinghouse

Policy

Standards

Capabilities

Data User
Desired Outcomes

- Establishment of a Clearinghouse with **richer** datasets and functionalities
- **Clarity** in policies on data access & pricing
- Definition, documentation and sharing of Data Standards
- **Consistent** definition of data, e.g. building data, address data
- Availability of data with better **resolution** & timeliness, e.g. aerial photos, demographic data
- Spatially-enabled **socio-economic** data, e.g. demographic & business data
- Improved awareness and **capabilities** on geospatial science & technology
- **Sustainable** operating model for both data suppliers and data users
From Land Data Hub to SG-SPACE

Data Sharing Model  Governance Infrastructure

- Policy / Institutional Framework
- Metadata
- Clearinghouse  Data
- Standards
- Applications / Services
Whole-Of-Government Approach

Singapore Geospatial Collaborative Environment (SG-SPACE) Committees

Steering Committee

Coordinating Committee

Technical Committee 1: Data Standard & Management
Technical Committee 2: Infrastructure & Technology Facilitation
Technical Committee 3: Capacity Building

Committee of Permanent Secretaries (COPS)
WOG Governance Initiatives
Geospatial Projects

Land Data Hub
People Hub
Business Hub
Security Hub

Data Supply

Updating

Coordination

Cooperation

Updating
A spatially-enabled nation

Outcomes
- Government
- Enterprises
- Communities

Success Factors
- Governance
- Capabilities
- Sustainability

Building Blocks
- Institutional Arrangements
- Data Accessibility
- Clearinghouse
- Data Availability
- Data Standards
- Applications & Services
Harmonisation into Existing Frameworks

**Existing Policy Framework**
- Data Administration
- Data Charging & Pricing
- Statutory Provisions
- Existing Standards Documents

**New SG-SPACE Documents**
- Policy Documents
- Standards & Best Practice Guidelines

Create/Consolidate

Addition/Review/Cross-Ref.

SG-SPACE Governance Framework
Capacity Building

• Awareness & communication
  – SG-SPACE website (http://intranet.sg-space.gov.sg)

• Collaboration with academia / institutes of higher learning / research centres

• Geospatial Conferences
  – Map Asia 2009: 18-20 August 2009
  – GSDI 12: October 2010
SG-SPACE Website
- A one-stop communication platform

*Success Stories*

*Publications*

*News & Events*
Pilot Projects
- Stakeholder engagement
Key Challenges

- Support from stakeholders
- Priority of funding
  - Specialised vs General user needs
- Alignment with existing governance frameworks
  - Policy enforcement
  - Scope of data standardisation
- Capacity building
  - Awareness on use and utility of geospatial data
Completed Tasks

• Completion of SG-SPACE Masterplan

• Assessment of user demands from public & private sector

• Establishment of 14 Fundamental Dataset categories and stewards

• Alignment with existing government policy framework on Information Management

• Drafting of Metadata Profile for Singapore

• Launch of Interim Clearinghouse
Thank You