GGIM

The Perspectives of Establishing Global Geospatial Information Reflected on Emerging Trends

IM, Joo-bin

Director-General
National Geographic Information Institute(NGII)
Republic of Korea

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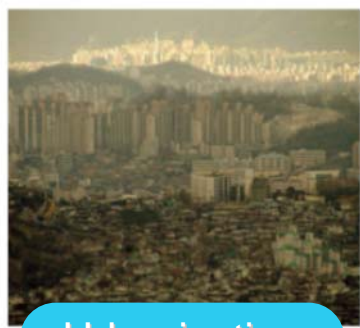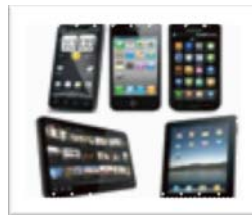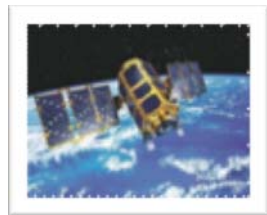# Emerging Trends in Geospatial Information

To cope with global challenges...

"Smart Society"

Advances in technology

Urbanization

Natural Disaster

Global Warming

Wind of Change to 'Smart'

"Smart Society", Mega Trend leading the Social Paradigm Shifts!

Technology

Strategy

Value

Industrial Society

- Industrial technology & resources, capital

- Hardware-centered

- Monotonous work

Information Society

- Knowledge & information

- Software-centered

- Knowledge, sharing, Openness

Smart Society

- Ubiquitous, convergence, AI

- Mobile, one man business

- Flexibility, creativity, human-oriented
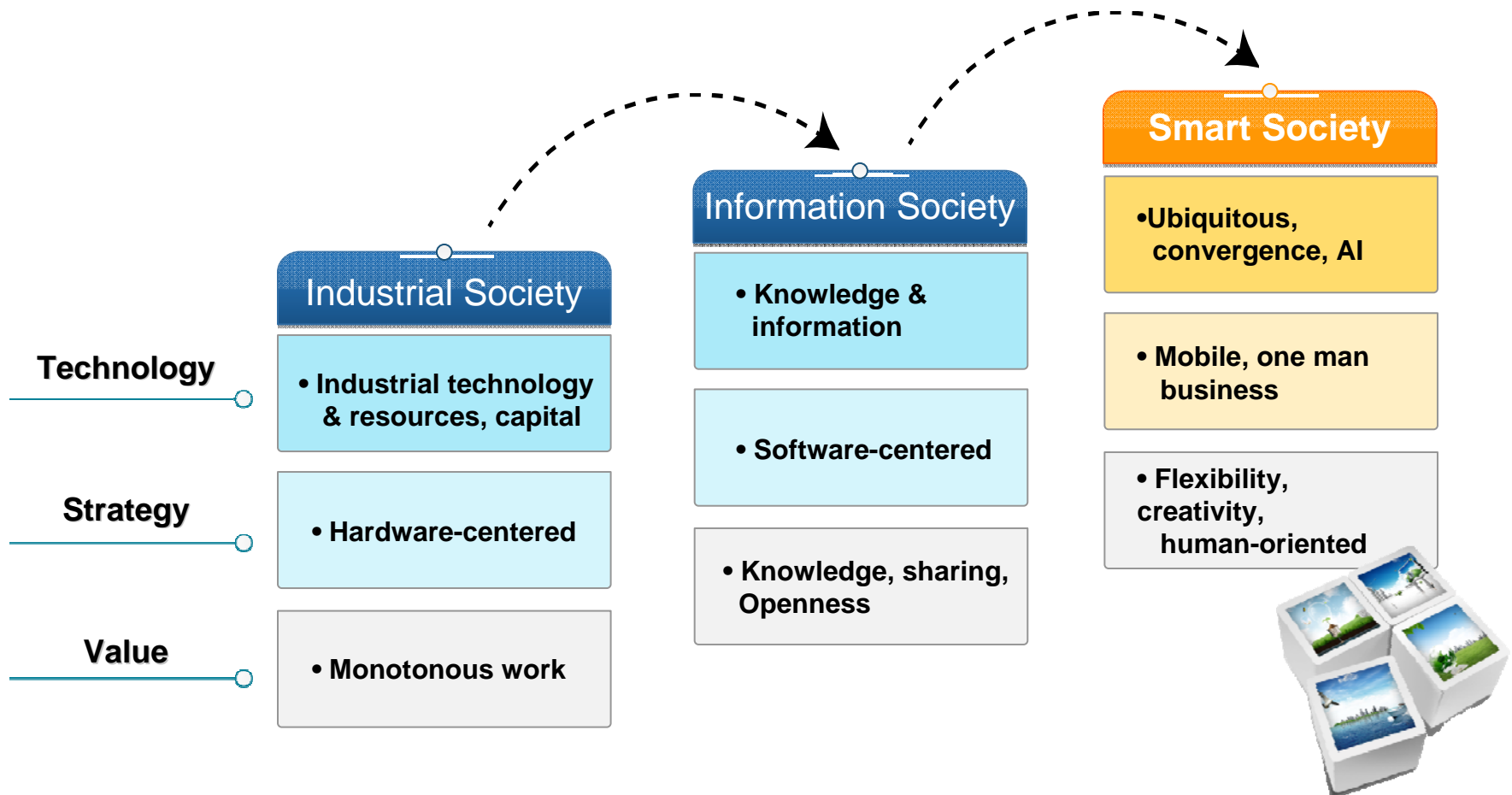
The importance of geospatial information

Toward Smart Society

Data Infrastructure

Geospatial Information Strategy

Everything happens Somewhere!

Who is it about?   Where is it about?

Emerging trends in GI

GI Trends	Technologies	Values
Real-time & 3D	LBS, UAV, AR	**Mobility & Reality**
Fusion & Convergence	LBSNS, Mash-up service	**Effectiveness & New leading business**
Sharing & Openness	Open data, Big data	**Accessibility & User-friendliness**

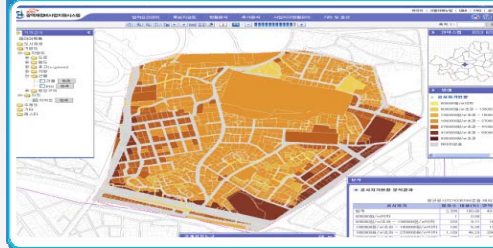# The application of GI trends in Korea

Reflection of Korea's past experiences
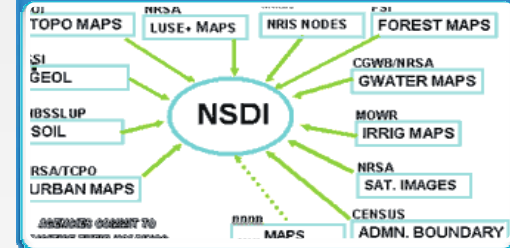
History of Korea's Geospatial Information

(1st) Paper Map→Digital Map

(2nd) Thematic Map

(3rd) Establishment of NSDI

TOPO MAPS	NRSA LUSE+ MAPS	NRIS NODES	FOREST MAPS
GEOL			CGWB/NRSA GWATER MAPS
IBSSLUP SOIL		NSDI	MOWR IRRIG MAPS
RSA/TCPO URBAN MAPS			NRSA SAT. IMAGES
			CENSUS
	MAPS		ADMN. BOUNDARY

1995 — **Establish Base Map**
2000 — **Develop Application System**
2005 — **Develop Interface Integration System**
2010

- Develop digital map
- Computerize cadastral map

- Korea Land Information System
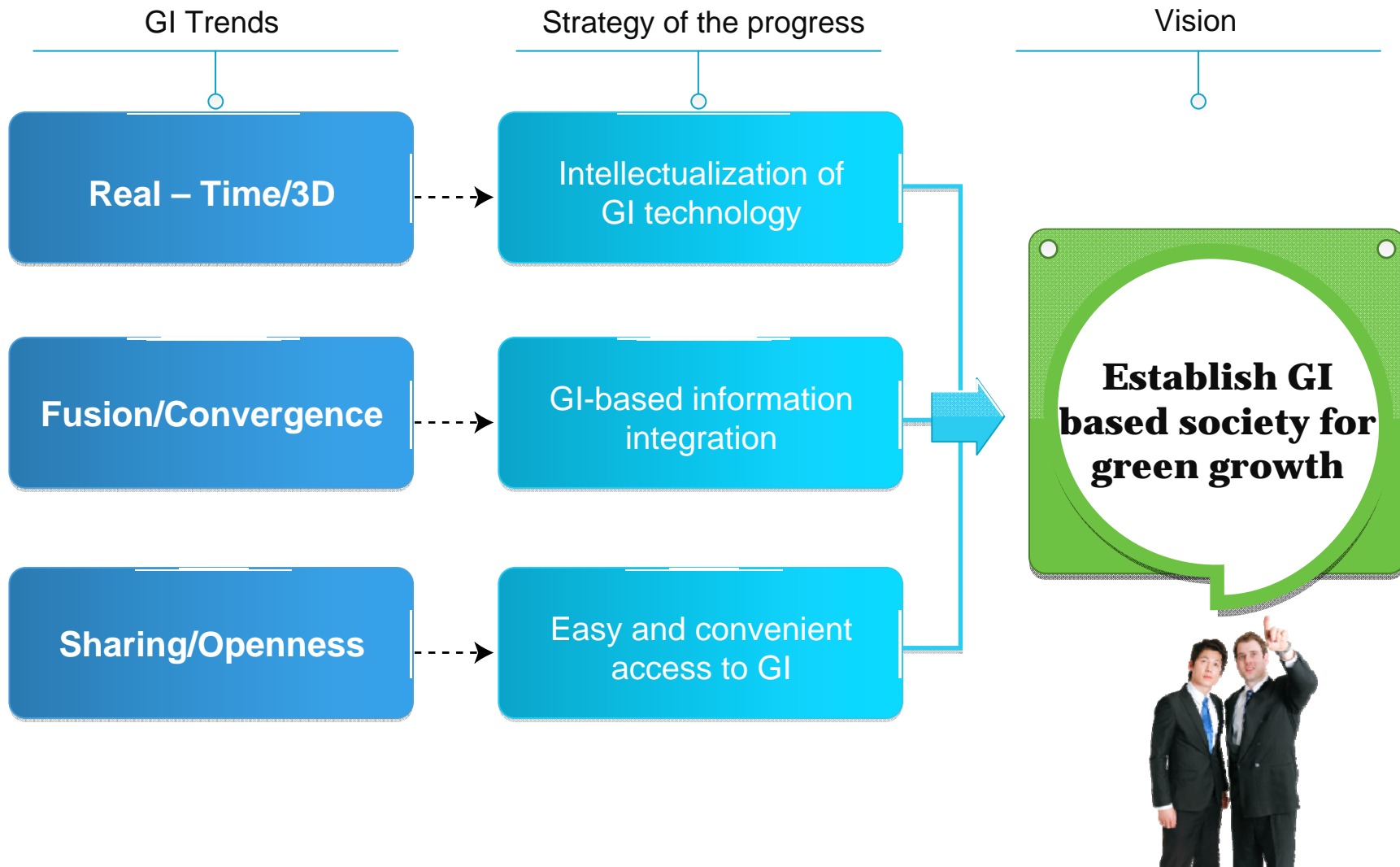- Underground Facilities Information System

- National Geospatial Information Integration System
- Administrative Geospatial Information System

Challenges

Reflection of new technologies / Sharing and Openness / User-friendly environment

Offering visions on the 4th plan regarding GI trends

GI Trends	Strategy of the progress	Vision

Real – Time/3D ⤏ Intellectualization of GI technology

Fusion/Convergence ⤏ GI-based information integration

Sharing/Openness ⤏ Easy and convenient access to GI

Establish GI based society for green growth

User Case① : Real-time / 3D

Real-time Geospatial Information

2010.8.(Before the landslide)   2011.8.(After the landslide)

Respond swiftly for restoration

- **Procedure** for responding to disaster
  - take a real-time aerial photo
  - construct the prompt response system
    by providing relevant information
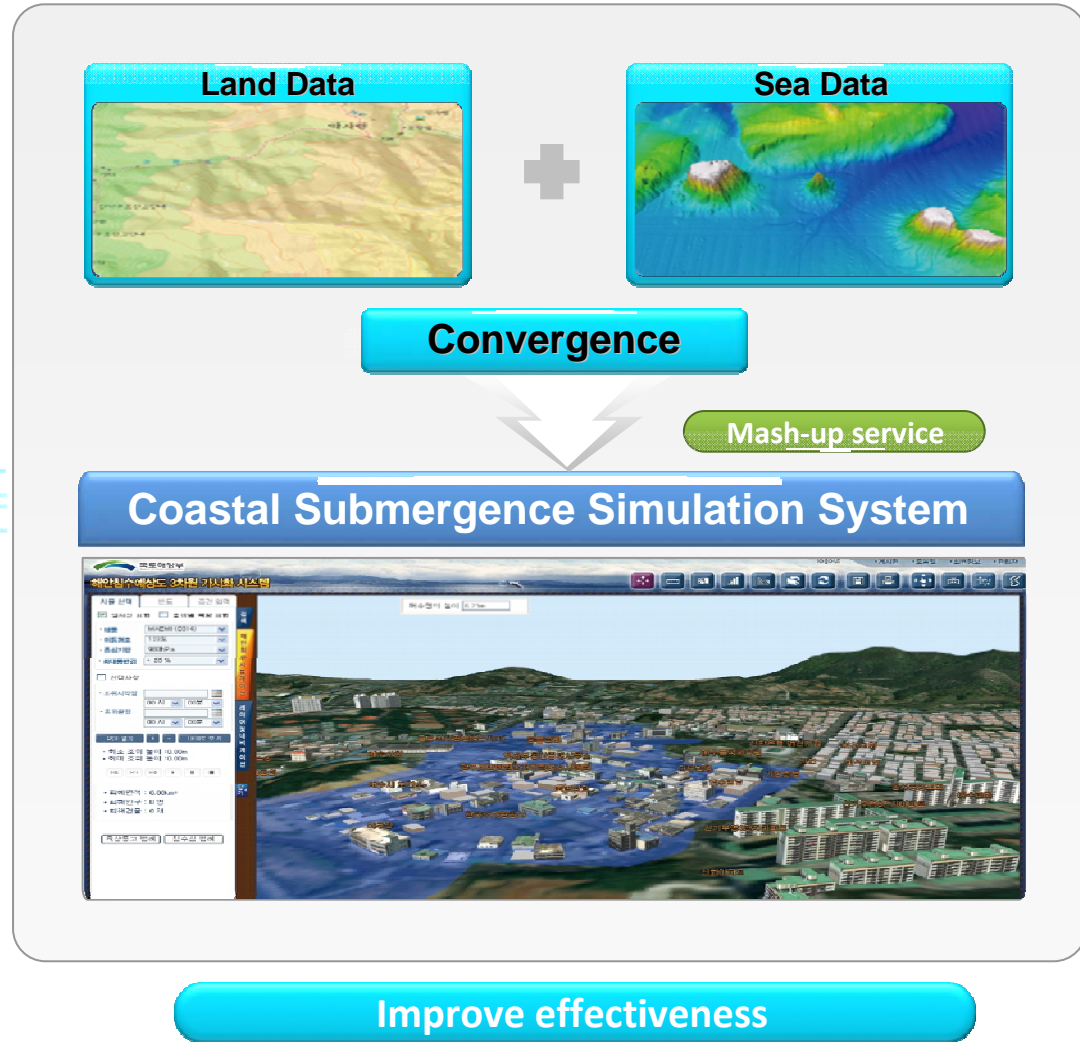
Improve mobility

3D Geospatial Information

(NGII)
- Take an aerial photo
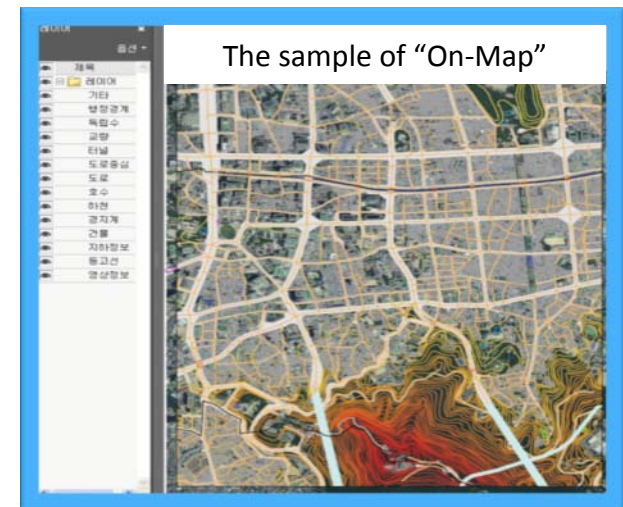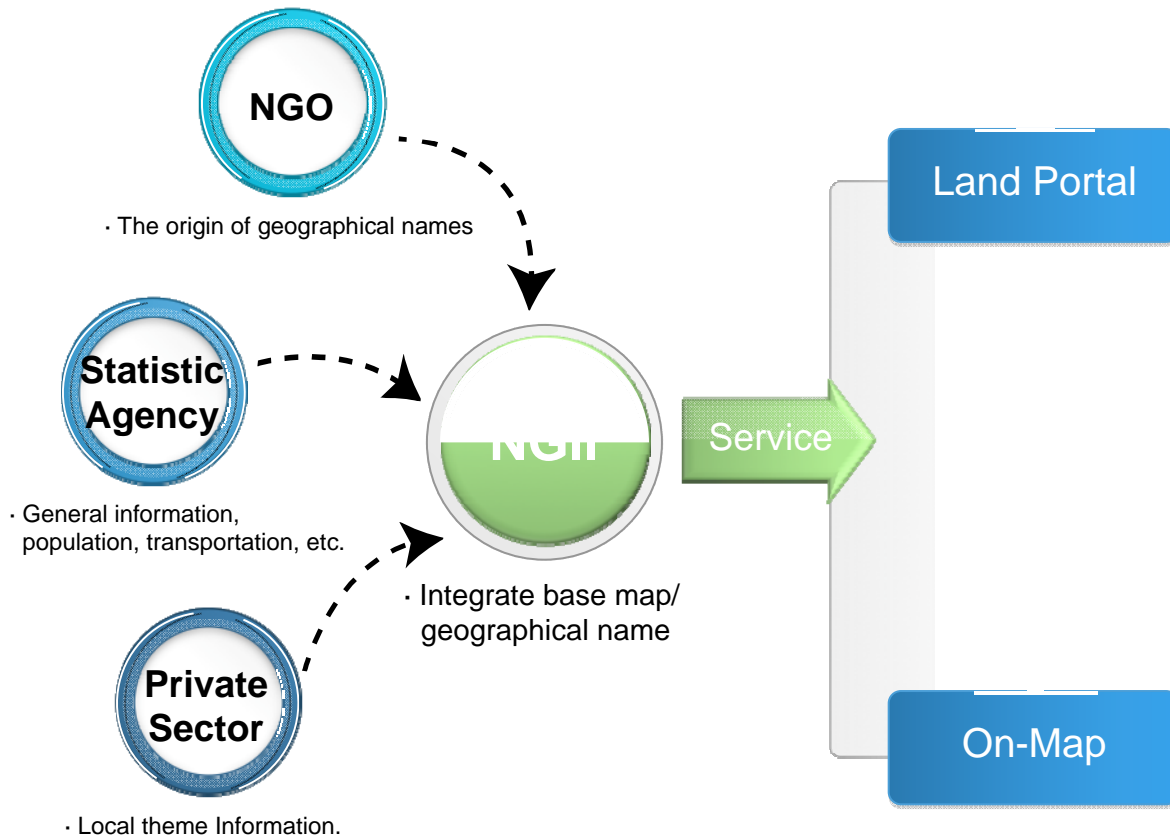- Develop precise DEM
- Construct tangible 3D map

Improve reality

User Case② : Fusion and Convergence

Evacuation
Path Service

Disseminate through SNS
(Twitter, Facebook, etc.)

Land Data

Sea Data

Convergence

Mash-up service

Coastal Submergence Simulation System

Improve effectiveness

User Case③ : Sharing and Openness

NGO

· The origin of geographical names

Statistic Agency

· General information, population, transportation, etc.

Private Sector

· Local theme Information.

NGII

· Integrate base map/ geographical name

Service

Land Portal

On-Map

The sample of "On-Map"

Improve Accessibility and make user-friendly environment

The direction for enhancing the global GI

The implications of the previous experiences

Set up the digital national base-map

- Develop act for national map and relevant industry promotion
  - Establish updating policy for national base-map

Enhance agility for emerging trends

- Set short & medium-term goals for reflection of technical trends

Recognize the need of open environment

- Experiences about the importance of standard and open system(web/internet)