



**International Seminar on**  
Land Administration Trends and Issues in Asia and the  
Pacific Region

# **Spatially Enabled Society**

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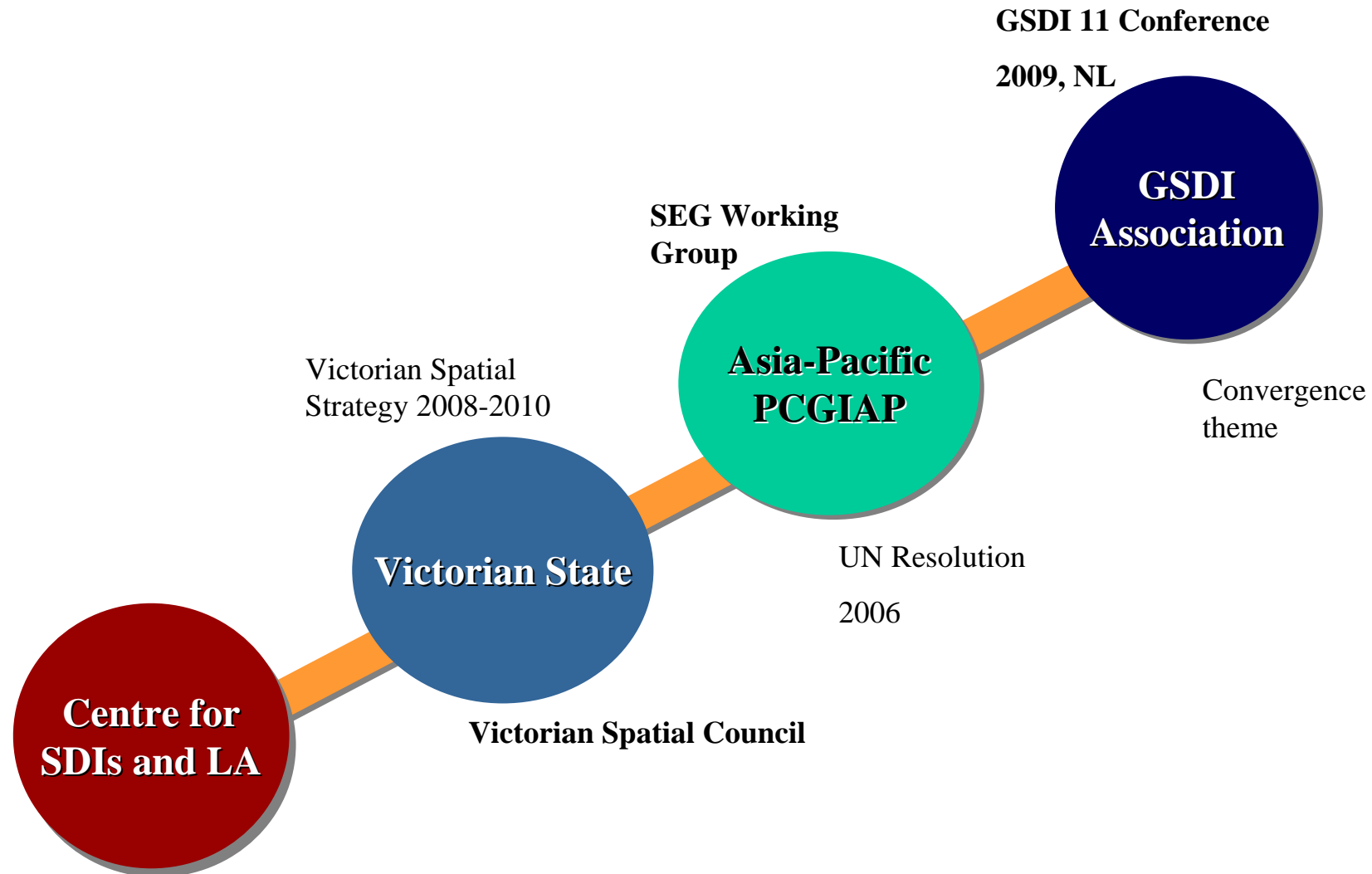
Vice-President (President Elect), GSDI Association



# OBJECTIVE OF PRESENTATION

*Introduce a new **Vision “Spatially Enabled Society”**-A Scenario for the Future (explain SDI design, issues and trends to support this vision).*

# Spatial Enablement – Experiences & Activities



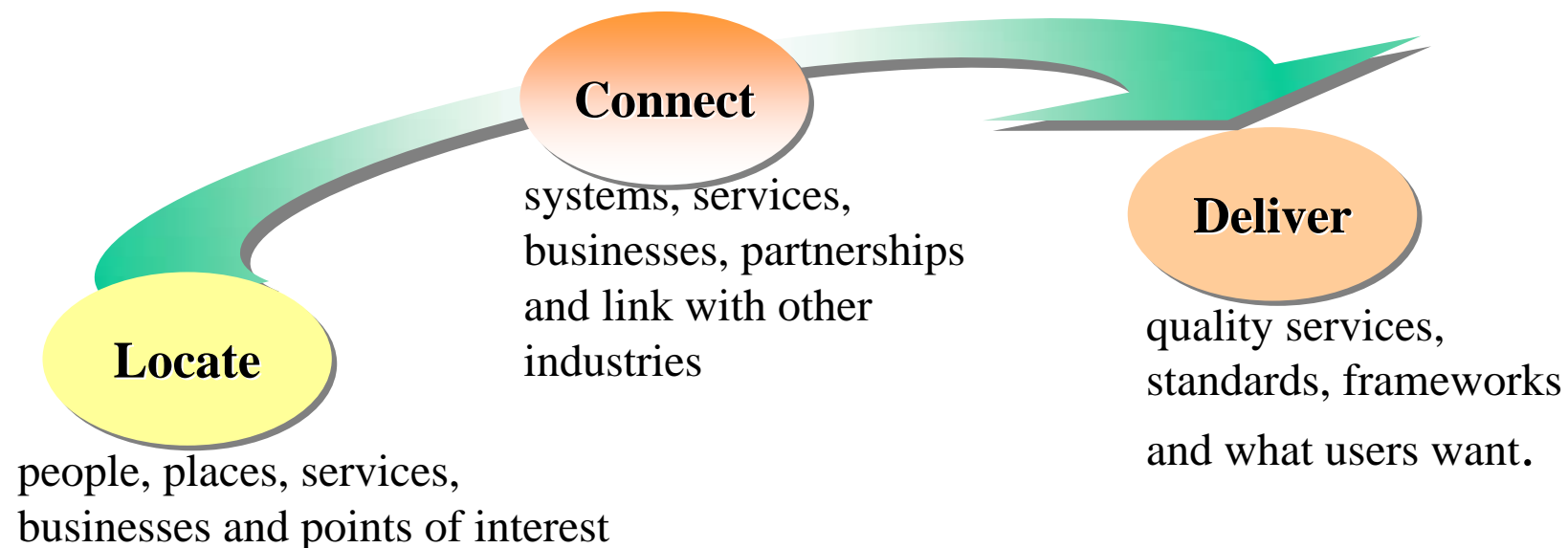


**Spatial information** is an enabling technology/infrastructure for modern society.

SI describes the **location** of objects in the real world and the **relationships** between objects.



- Spatial Information can be a unifying medium – **linking solutions to location.**
- User demand has shifted to seeking **improved services and delivery tools.** This will be achieved by creating an environment so that we can:





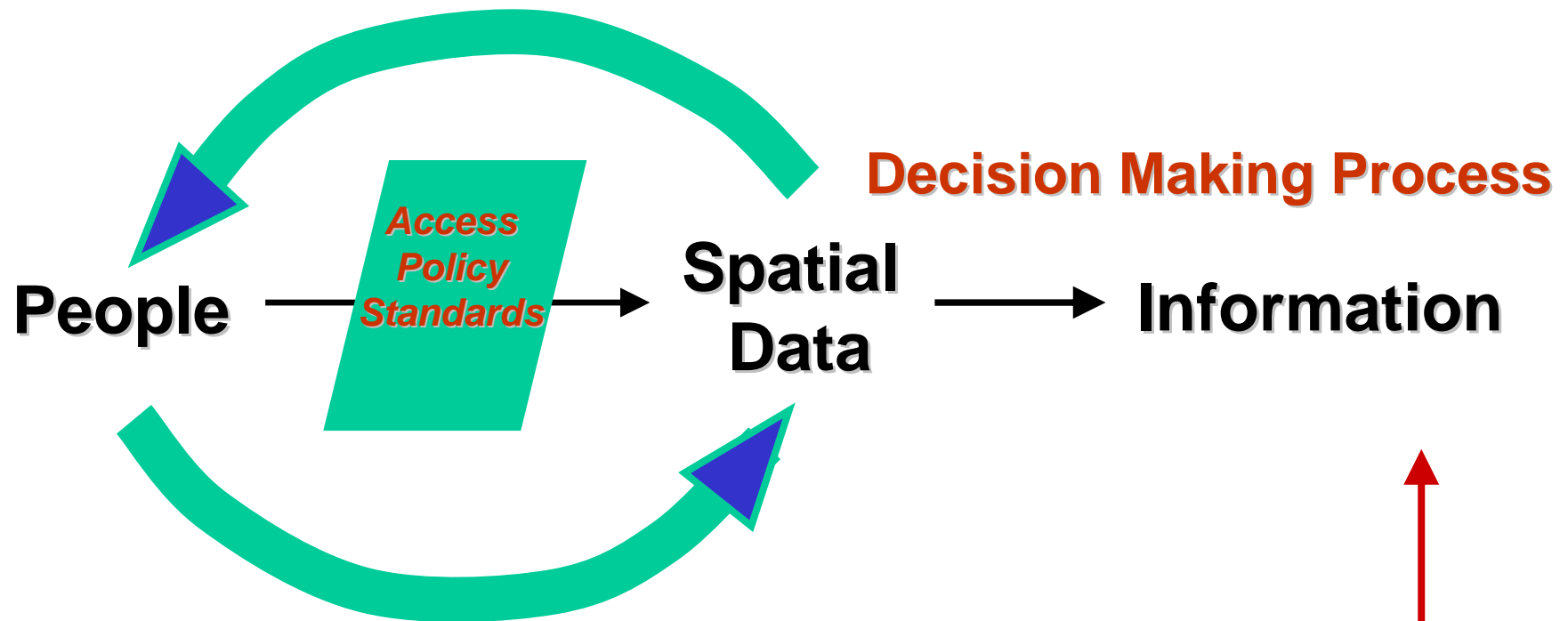
Ready and timely access to **spatial information** – knowing where people and assets are – is essential for the creation of wealth in any jurisdiction.

It is a critical tool for making **informed decisions** on key economic, environmental and social issues.

# The Significance of Data?



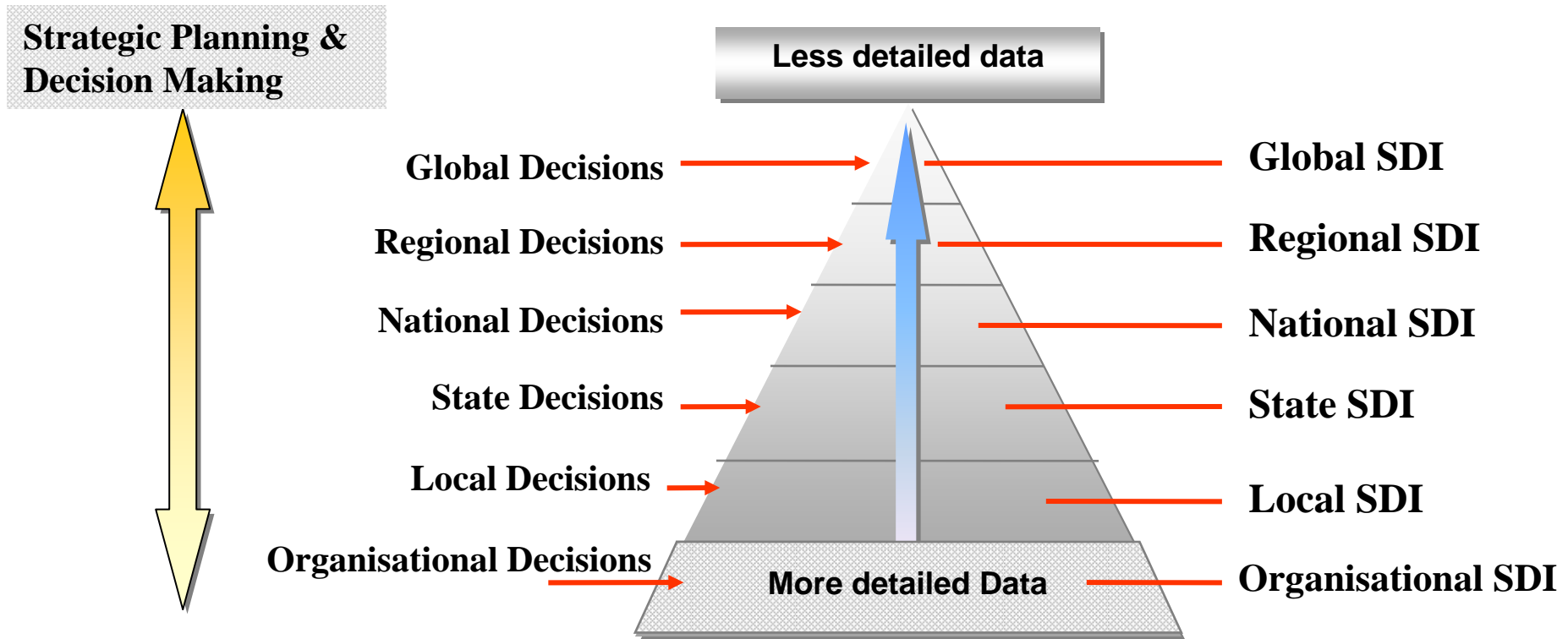
**Spatial Data** is further shaped by the decision-making process to which it is subject



Management / Administration underpinned by access to spatial information.

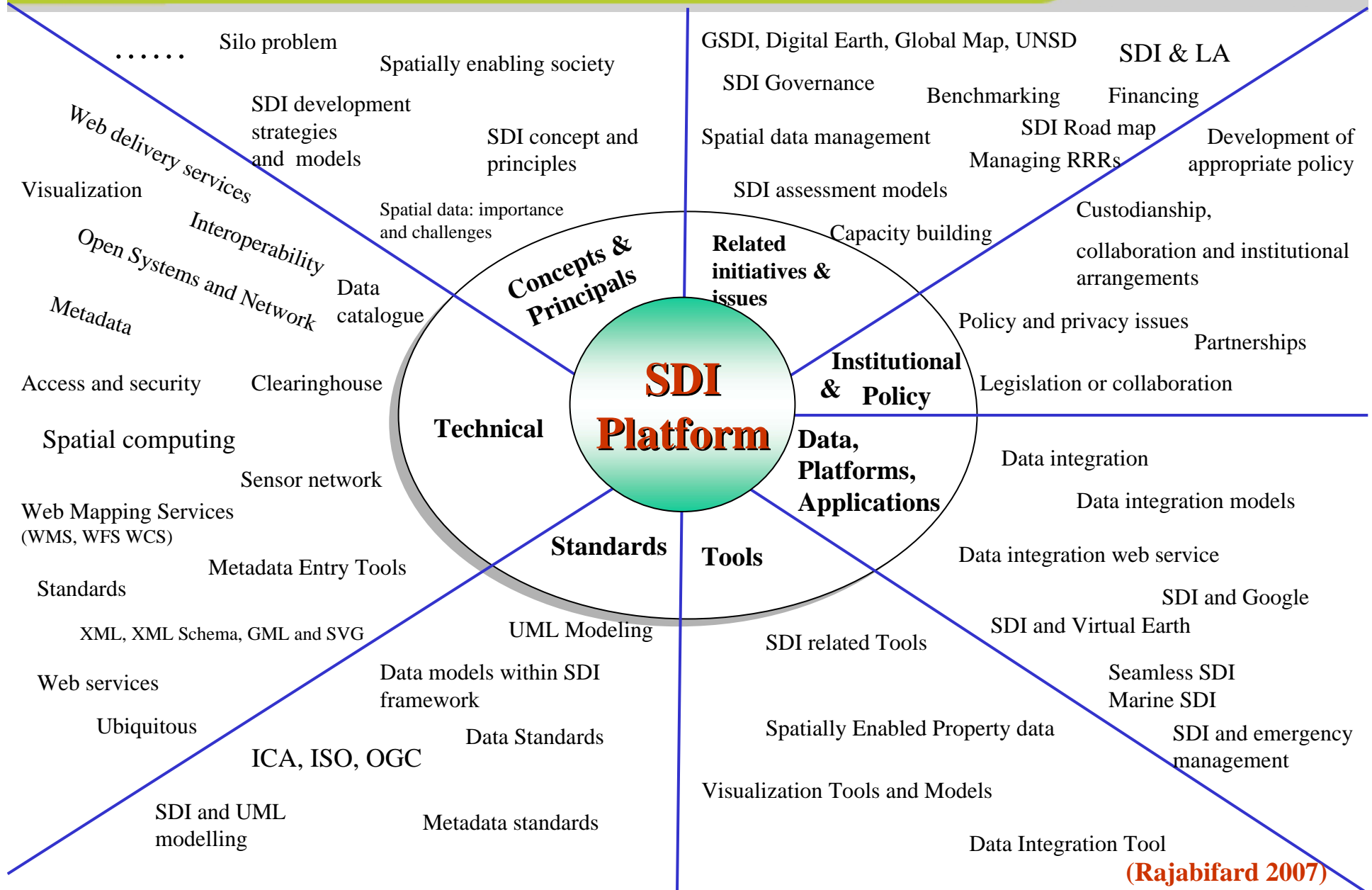


- ...is an integrated, on-line mechanism to deliver spatial data and services and information for applications, better business and policy decision-making, and value-added commercial activities.
- **Components**-collection of people, policies, networked datasets and enabling technologies and services.



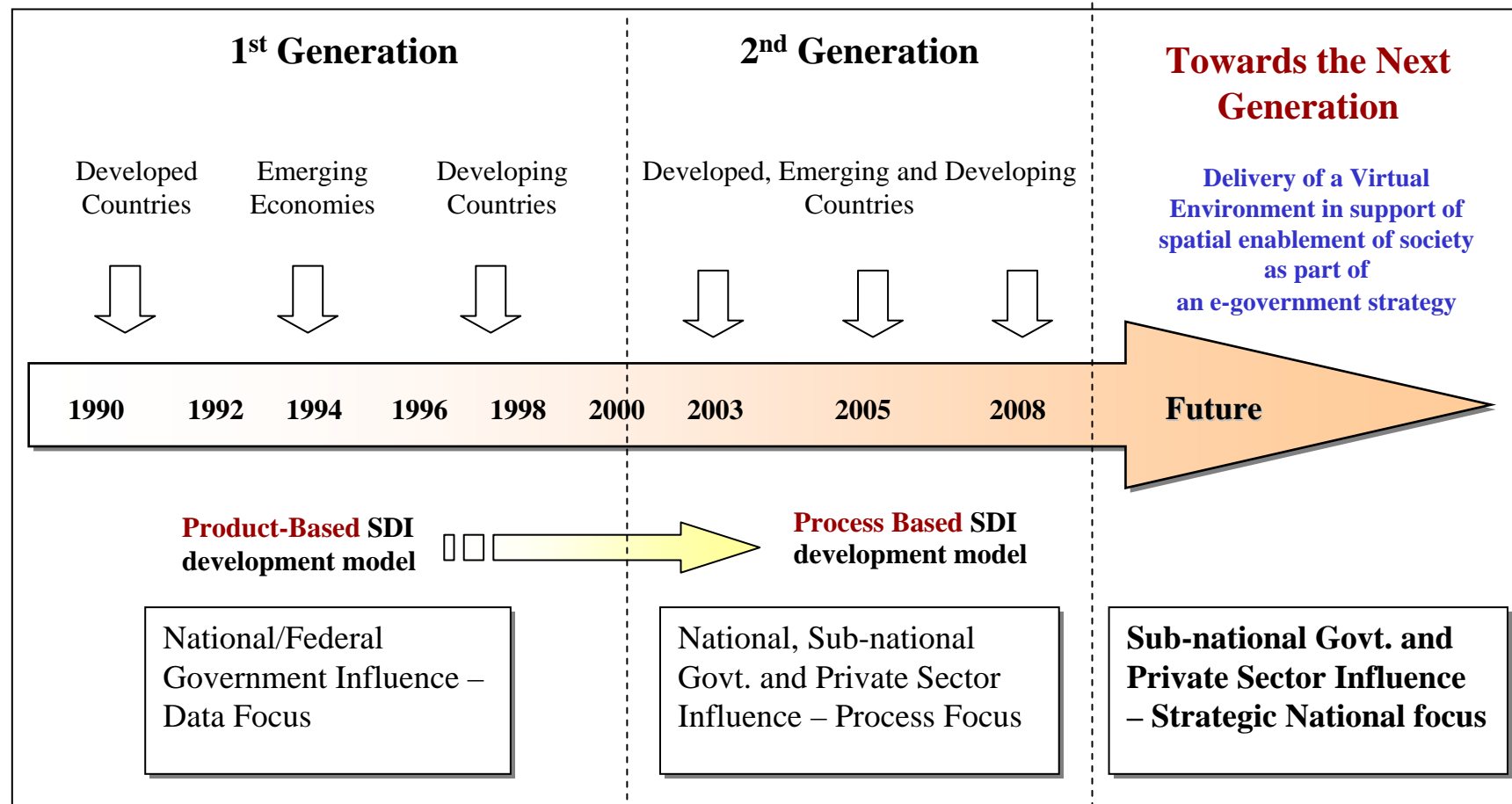
- Many groups working on **same problem** at different levels on the hierarchy.
- Success depends on intra- and inter- jurisdictional cooperation between individuals and agencies.

# SDI Content and Elements



(Rajabifard 2007)

# Continuum of SDI Development



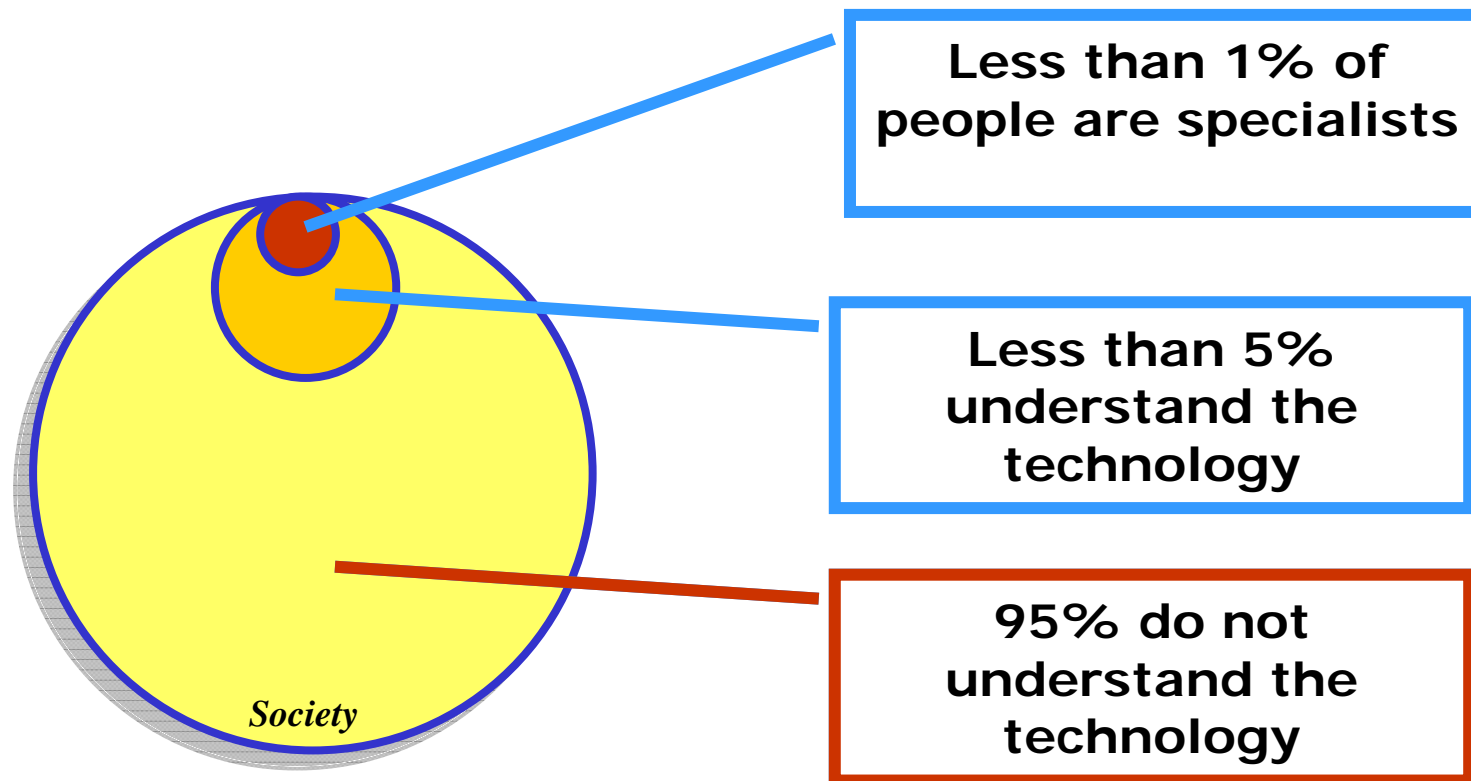


- **Increase effectiveness**
  - Better access (reduce barriers)
  - New services
  - Exploit data better
  - Get data on time
  - Avoid duplication of data
- **Increase efficiency**
  - Avoid duplication of effort
  - Avoid duplication of infrastructure
  - Commodity access arrangements

# Who understands place?

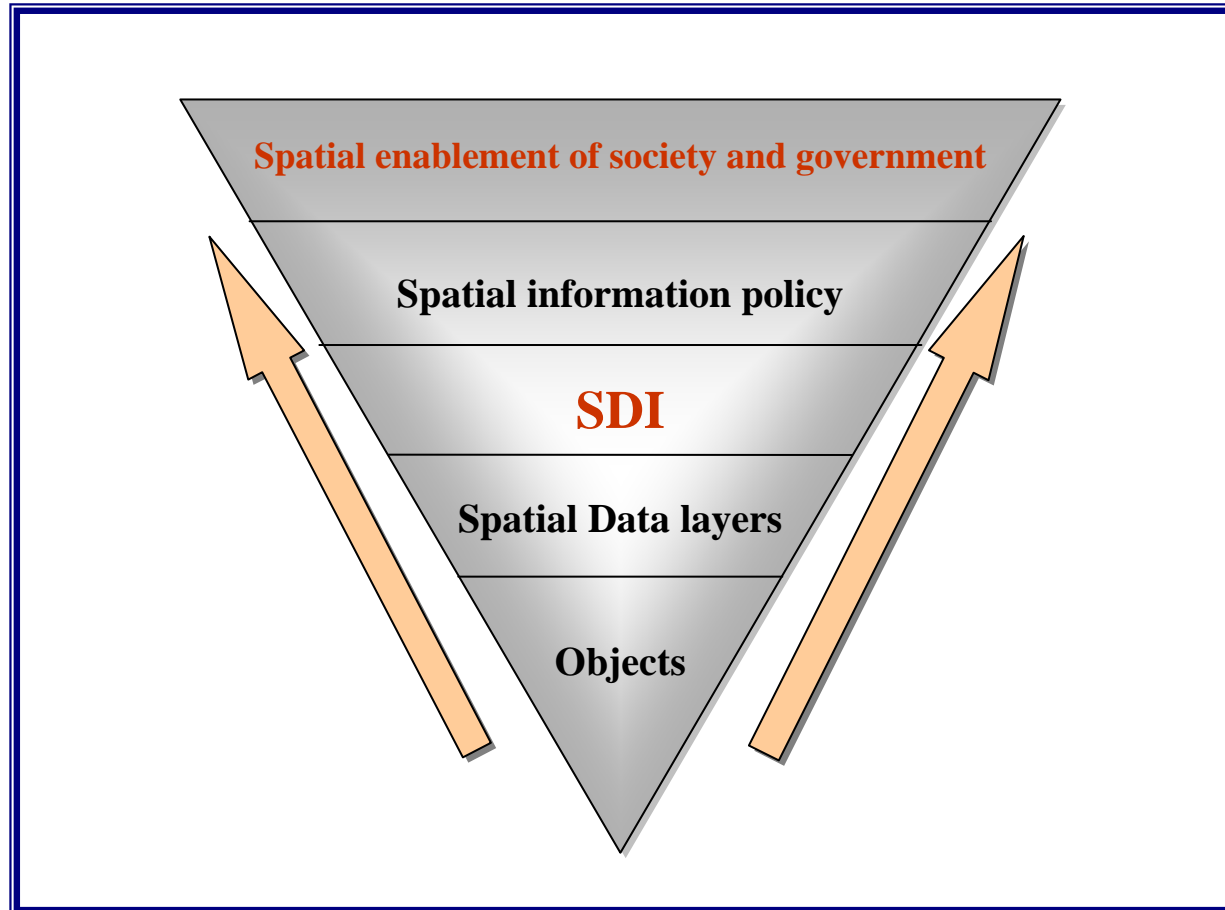


The vast majority of users do not know they are “spatially enabled”!





- Location or place is used
  - initially to organise government information,
  - then to **re-engineer** government processes to deliver better policy outcomes,
  - Spatially enabled will ensure better productivity and efficiency,
- Place is used in a transparent manner.
- **SEG** means far better delivery of government services and sustainability better decisions by government.





# **Spatially Enabled Society – A Scenario for the Future**

The ‘**spatial enablement**’ can reshape  
our lives.

# Possibilities provided by Spatial Enablement

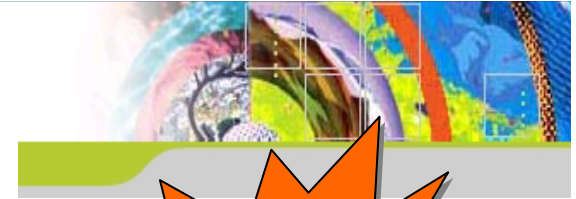


**Spatial enablement** can contribute to dealing with the challenges we face as a society. At the same time, however, it brings its own challenges.

- Expanding government services — ‘**consultation & participation**’
- Policy & Administration
- Public Safety
- Utilities
- Health
- Sustainability and our environmental footprint
- Land Administration
- The economics of production
- Consumption and choice



# Spatial Information- past, current, future



Achievement

ICT advancements  
Remotely-sensed data  
GIS  
Internet  
Effective databases  
Integrated data management

Digital data  
Web-based applications  
Multi-disciplinary applications  
Computer networks  
Distributed services

Paper Maps  
Centralized archives  
No standardization  
Lack of Collaboration  
Isolated Computing stations  
others

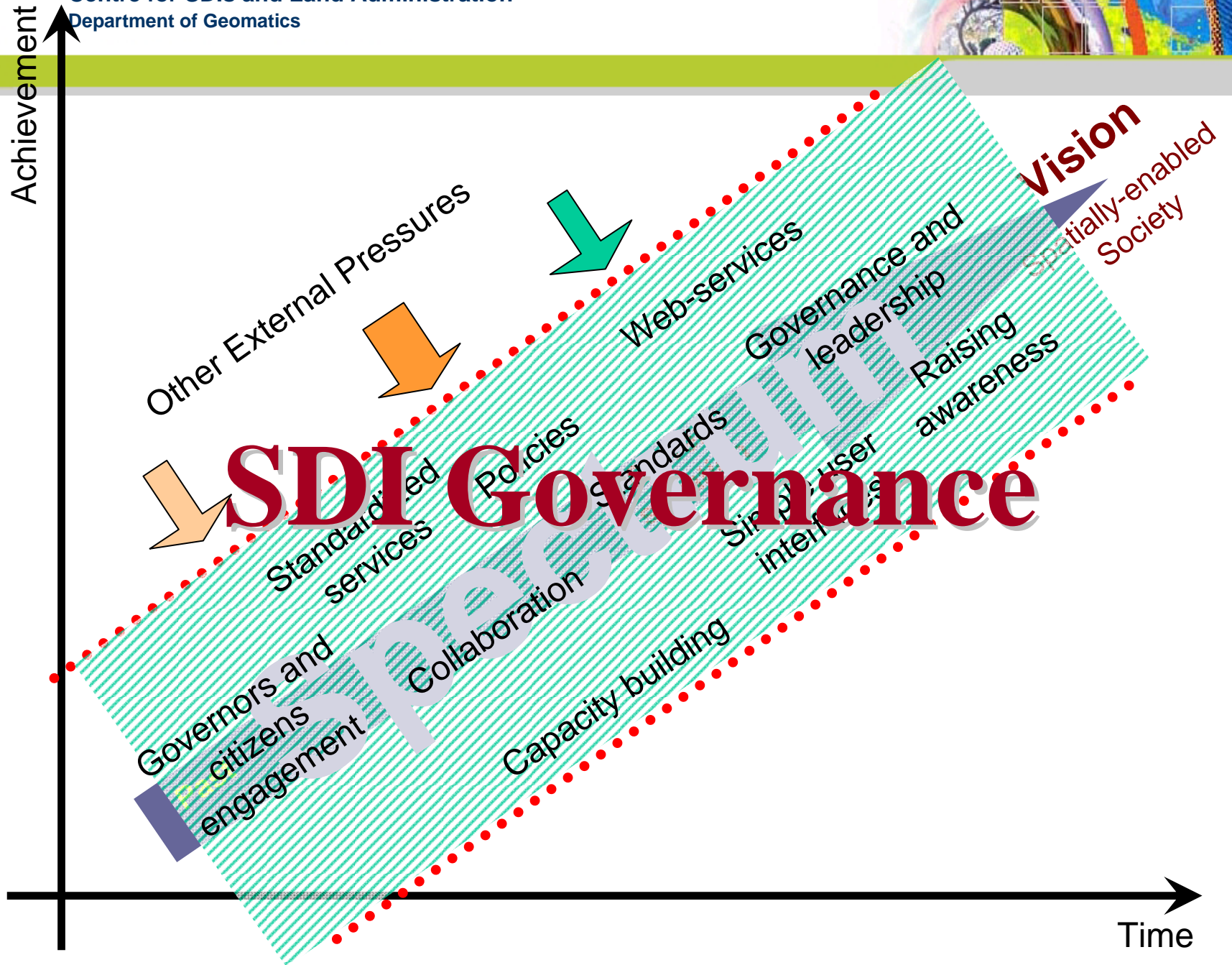
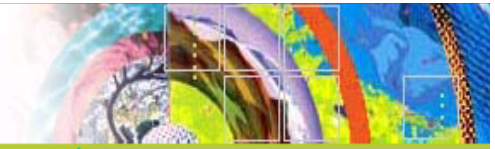
Past

EVOLVING



Vision

Time



# Governance contexts



## Societal governance

### Corporate governance

#### IT governance

#### SOA governance

#### SDI governance

- purpose - to ensure improved outcomes in public goods and service delivery
- scope – society
- exercised by – state, increasing inclusive of on behalf of - society
- purpose - to direct, supervise, monitor operational management of corporation
- scope – organisation
- exercised by – board
- purpose - to enable inclusive effective decision-making about an organization's IT resources
- on behalf of - organization owners/stakeholders
- scope – organisation
- purpose - to support decision-making about design and operation of shared infrastructure
- exercised by – designated IT stakeholders
- on behalf of - organizations managers and shareholders
- exercised by - designated stakeholders of an infrastructure
- scope - within an organization
- scope - increasingly across organizational and jurisdictional boundaries
- on behalf of - stakeholders (operators, users)



**Victorian State  
Australia**

**Victorian Spatial Council**

Victorian Spatial Strategy 2008-2010

**Asia-Pacific  
PCGIAP**

**SEG Working Group**

UN Resolution, 2006 for SEG and VSDI

SEG International Workshop, Korea 2007 (jointly with GSDI)

**GSDI  
Association**

**GSDI 11 Conference, 2009, NL**

Convergence theme

# Victorian Spatial Information Strategy 2008-2010

## *Spatially Enabled Victoria*

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### Elements:

- governance
- custodianship
- framework information
- business information
- data quality
- metadata
- awareness
- access
- pricing and licensing
- privacy
- strategic development of technology and applications

4 scenarios of the effects of different levels of private and public sector engagement:

| Public      | Private     |
|-------------|-------------|
| High        | Low         |
| Low         | High        |
| Low         | Low         |
| <b>High</b> | <b>High</b> |



## 17th United Nations RCC-AP, Bangkok, 18-22 September 2006



United Nations Statistics Division

### Resolution:

*SDI to support spatially enabled government*

**Recommendation** *Member Nations develop a better understanding and pursue the principles of designing SDIs to support spatially enabled government.*



# GSDI Perspective GI Society: A Partner in Setting the Global Agenda

## *SDI regions*

Canada  
Americas  
Africa  
Europe  
Asia / Pacific



## *Global society*

World Bank  
UN  
Habitat  
UNISEF  
Water Forum  
WHO  
FAO

# GSDI 11 Conference

The Netherlands June 15 - 19 2009

GSDI 11 World Conference

**Spatial Data Infrastructure Convergence:**

**Building SDI Bridges to Address Global Challenges**



# GSDI 11 Conference

The Netherlands June 15 - 19 2009





# Thank you