




# Spatially Enabled Society- the Global Perspective

*Building Bridges Between Sectors &  
Spatial Communities*




**Abbas Rajabifard**  
President, GSDI Association

Director, Centre for SDIs and Land Administration  
University of Melbourne

## Spatial Enablement




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

.....

- Spatially enabled society,
- 
- **What is “*Spatial Enablement*” ?**
- 
- Spatially enabled.....

... more publications and dedicated events on these  
topics in different part of the world.



## Spatial Enabled Society



Example of questions, in line with the aims and objectives of this **Plenary**:

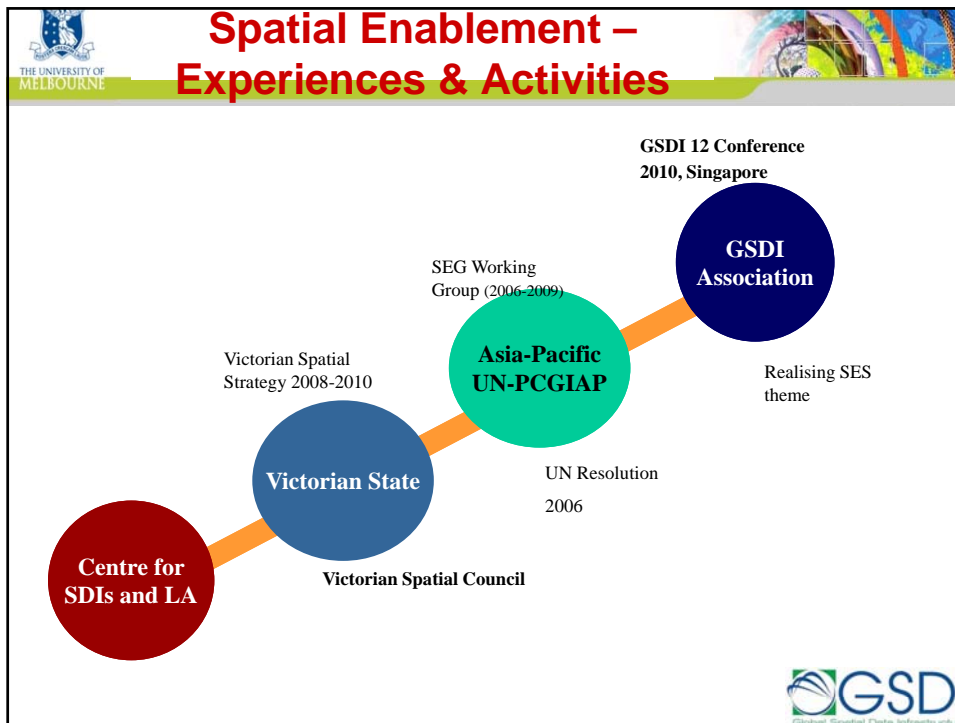
- What does **Spatially Enabled Society** mean?
- What is the relationship between **Spatially Enabled Society** and e-Government/ICT strategies?
- Can **Spatially Enabled Society** be a reality?
- Does **Spatially Enabled Society** require a jurisdictional approach?
- What are the key steps/essential elements to implement and realise **Spatially Enabled Societies**?
- What are the requirements for, and **indications** of, spatial enablement and how might **SES** be assessed?
- .....

## Objective of Presentation



Introduce a new **Vision**

***“Managing information Spatially”***

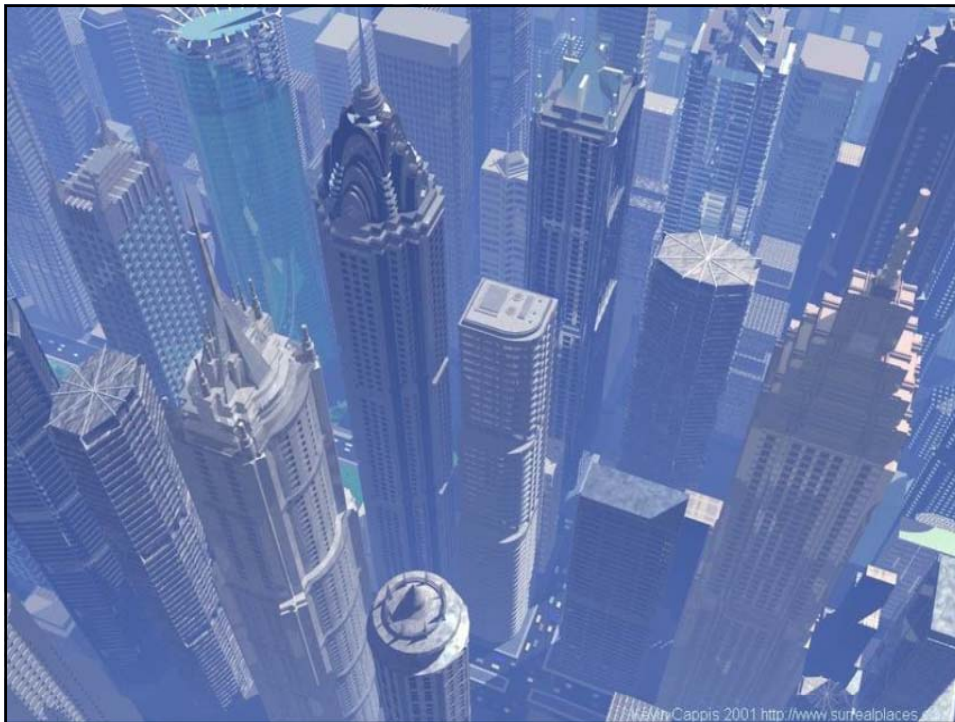
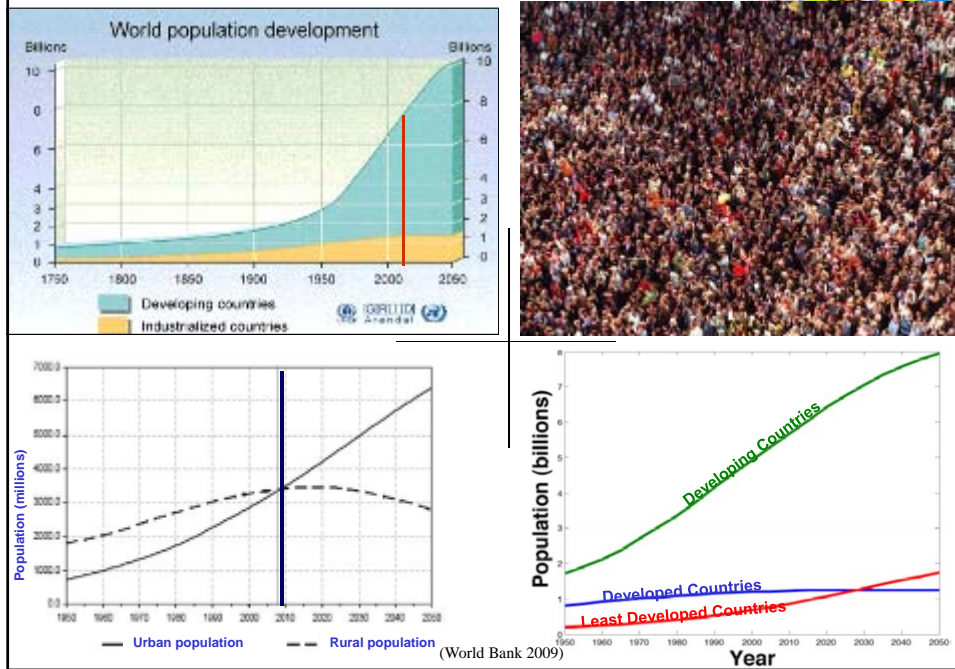


**Global Issues and Challenges...**

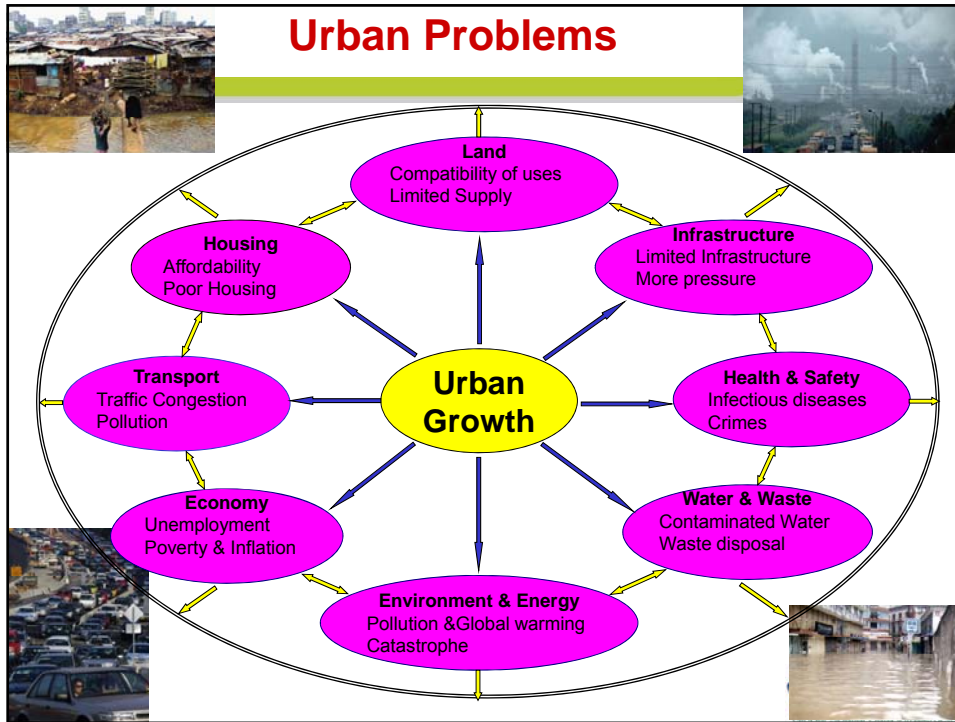
*We are living in an increasingly complex and rapidly changing world....*

GSD

## World and Urban Population Growth









**....Climate Change ...**








## Global Issues and Challenges...



- World and Urban Population Growth
- Climate Change
- Sustainability
- MDGs
- Societal challenges


the global financial crisis, natural disasters and environmental information sharing)

- ....



global challenges facing humanity

- Sustainable development
- Clean water
- Population & resources
- Democratisation
- Long-term perspectives
- Global convergence of IT
- Rich-poor gap
- Health issues
- Capacity to decide
- Peace & conflict
- Status of women
- Transnational organised crime
- Energy
- Science & technology
- Global ethics







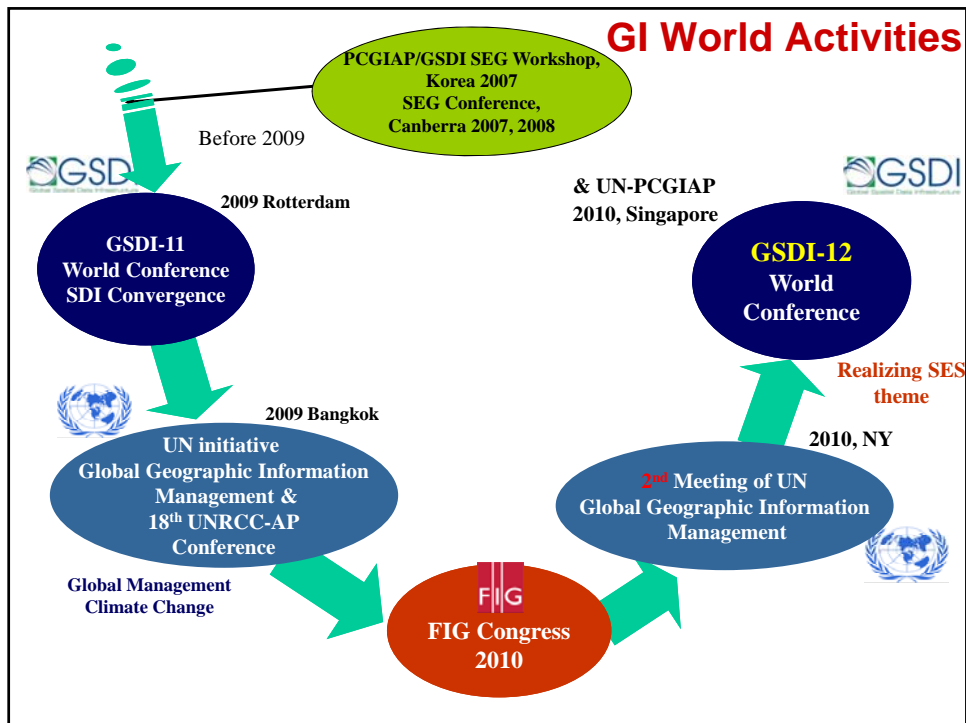
**Spatial-information** and technology  
can contribute to dealing with the  
challenges we face as a society.

At the same time, however, it brings  
its own challenges.

## **Emergence of the Terms SES/SEG**



- SES/SEG are relatively recent terms but no common definition.
- Used in some countries but not understood in many jurisdictions.
- SES/SEG means more than tagging something with a spatial identifier (eg. database record).
- SES/SEG means to use spatial technology across government and society to improve decisions and increase efficiency.





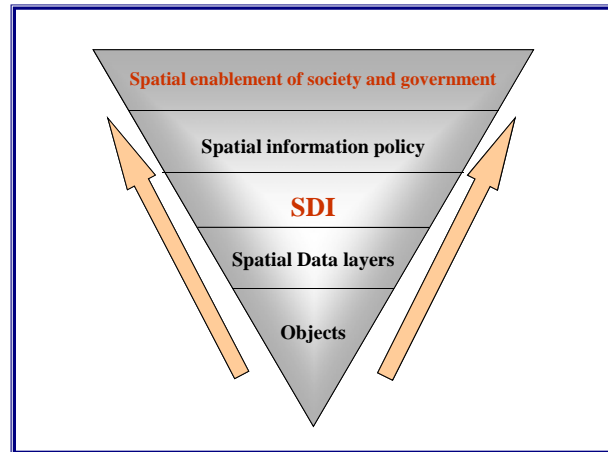
## Understanding the needs of Society



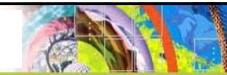
- Understand the spatial needs of society
- Understand the social system in which **Spatial Enablement** will operate
- Understand the technical environment which the **Spatial Enablement** must support.



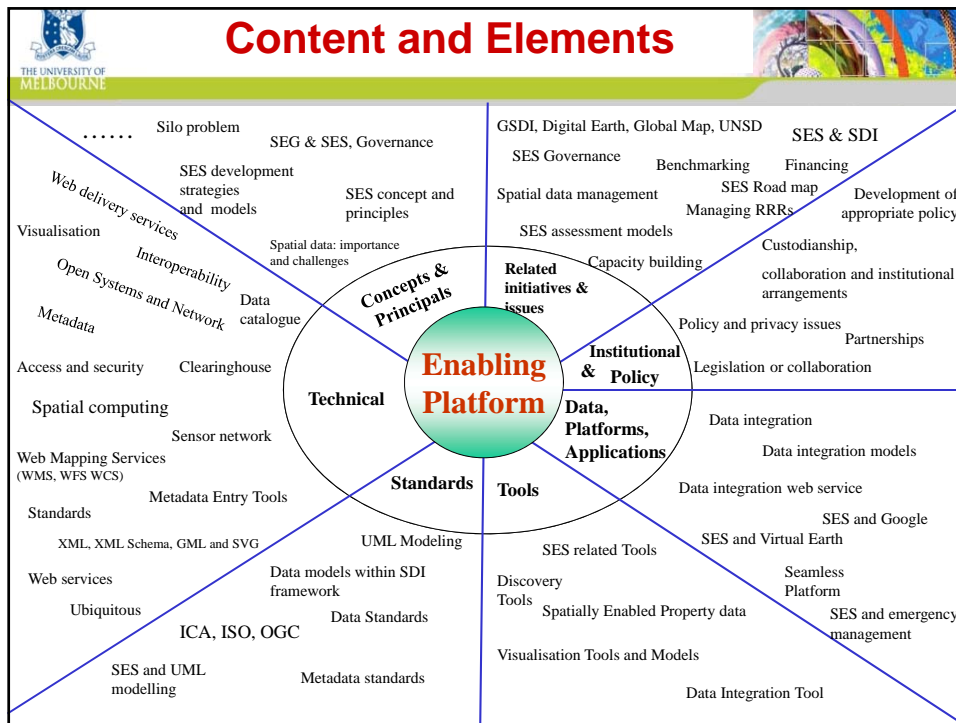
## Spatial Information in Society



## Enabling Platform - Definition



**Enabling platform** provides appropriate technical, governance and legal structure to link **data** and **services, products**, and real world objects underpinning a **Spatially Enabled Society and Government**.



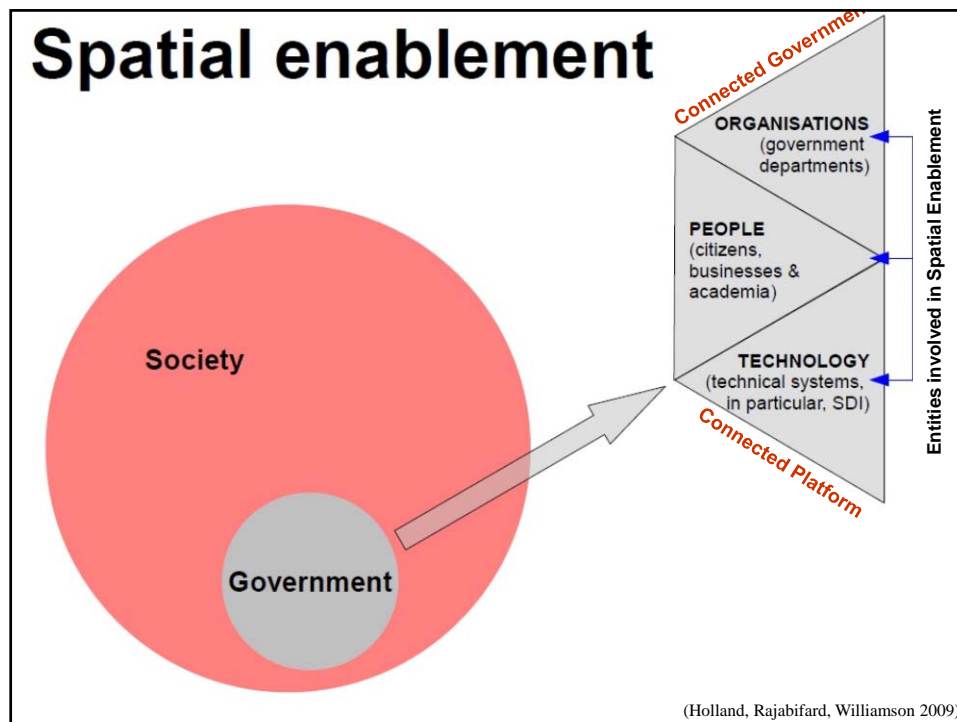
**Spatial Enablement**



A society or government can be regarded as **spatially enabled** when location and spatial information are common goods available to citizens and businesses to encourage creativity and product development,  
 (Wallace *et al.* 2006)

**and**

It is also defined as an innovator and enabler across society and a promoter of eDemocracy.


**GSD**  
 Global Spatial Data Infrastructure



 **Spatial Enablement** 

**Spatial enablement** contributes to the **expansion** of **consultative** and **participative** government services to the society such as:

- e-government,
- policy and administration through cost reduction,
- public safety through more efficient emergency services,
- improved utilities infrastructure,
- better management of health services, and
- environmental sustainability.



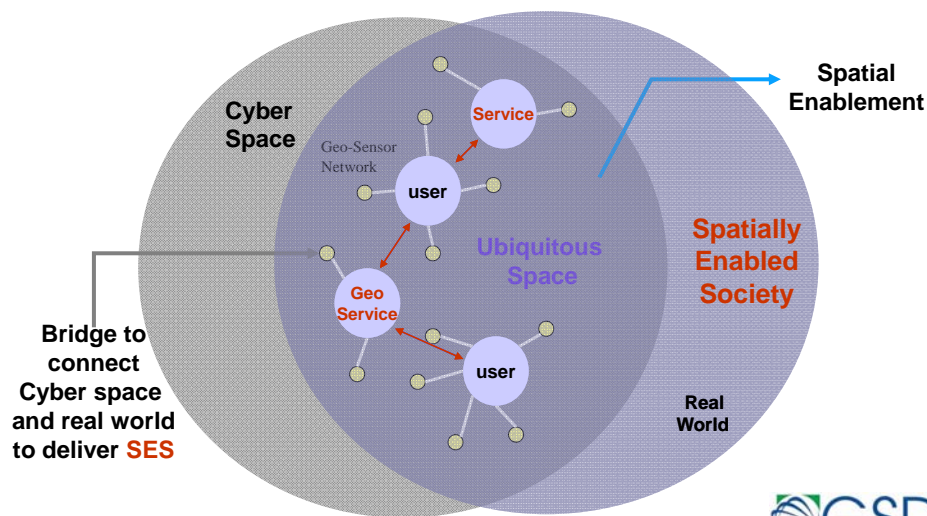
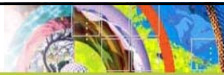
## Spatial Enablement



**Spatial enablement** is usually used in a **ubiquitous** and transparent manner by a wide cross section of society.

By its very nature spatial enablement demands a **“whole-of-government”** approach.

## Ubiquitous Space and Spatial Enablement



(Adopted from Sadeghi 2010)

## Ubiquitous Sensor Network to Facilitate *Spatial Enablement*



(Sadeghi 2010)



## International Initiatives



- **Asia-Pacific-PCGIAP** initiatives on SEG as part of their WG3 activities since 2006, and resolution from UNRCC-AP to support SEG.
- **Europe- INSPIRE** and Eurogeographic aim to improve the interoperability of, and access to, spatial information across the European Union at different levels, facilitate improvements in the sharing of spatial information between public authorities and provide improved public access to spatial information.
- **Canada-** is well advanced in its spatial enablement initiatives. It has a well developed SDI (**CGDI**), a funded and comprehensive SDI partnership program, and a strong and inclusive SDI governance framework.



## International Initiatives

- **Korea-** government committed USD1.4 billion SEG strategy particularly using advanced ubiquitous environment, as part of this, Korea expends between **25-30% on research and training**.
- **Japan-** NSDI Act, 2007 inline with SEG strategy.
- **Singapore-**NSDI initiative as the Singapore Geospatial Collaborative Environment (SG SPACE) by SLA.
- **USA-**a Presidential initiative on a **Geospatial Line of Business (GLOB)** which has led to the establishment of the **National Geospatial Advisory Committee** in 2008. The Committee describes the changes and advancements in the geospatial landscape over the past three decades to set a context for its future deliberations.

## International Initiatives

- **Australia-**Collaboration by the national governments through **PSMA** has seen the development of **seamless national framework datasets**, including a geocoded national address file called **G-NAF**, and a supply chain infrastructure.
- SEG Conference 2007; ANZsi initiative, CRC-SI 2.
- **Federal Government:** Several initiatives, of most interest is the Commonwealth spatial data initiative (CSDI)
  - **VIC:** Spatially Enabled Victoria (VSIS 2008-2010)
  - **NSW:** has implemented a number of SEG initiatives. These initiatives are being developed strategically within a unified architecture of location intelligence (Watkins and Harris, 2010)
  - **WA:** SLIP is the infrastructure supporting SEG in the state and current development of **Spatial Vision**.





## Spatial Enablement- Vision and Road Map

## Vision for Spatial Enablement

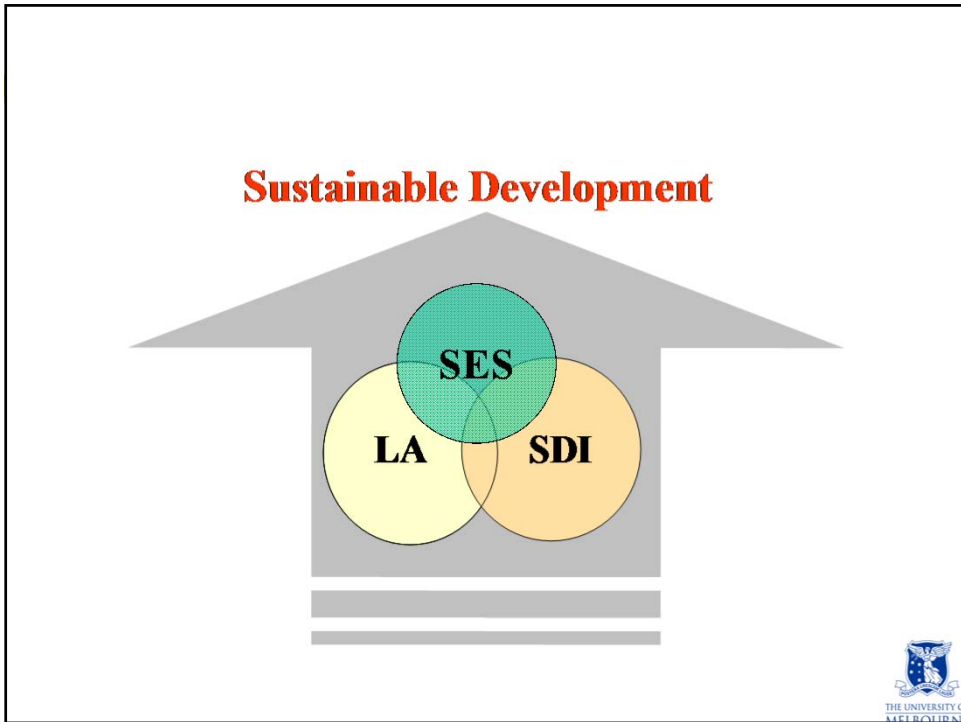



- **Vision** for **spatial enablement** leads to improved decision making; reduction of administrative costs; whole of government outcomes; and enhanced industry development opportunities.
- However, this requires **data** and **services** to be accessible and accurate, well-maintained and sufficiently reliable for use by the majority of a society which is not spatially aware.
- Emphasise **spatial enablement** of **services** that society needs.

## SES/SEG Conceptual Framework


- Vision
- Its drivers, benefits and business case;
- Definitions, principles and objectives;
- Its characteristics and elements;
- Its theoretical bases and research needs;
- Implementation requirements; and
- Its assessment methods.

**Spatial enablement** will assist both developed and developing countries to pursue **Sustainable Development** objectives and it will ensure better **productivity and efficiency**.



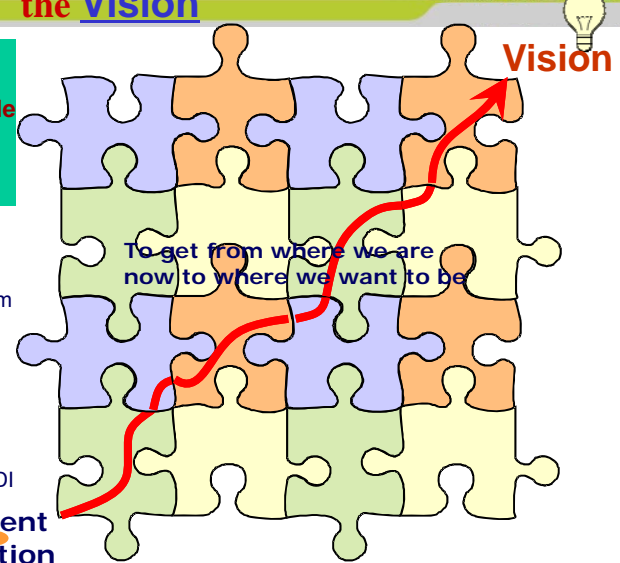


## Mapping Common Paths to achieve the Vision




To assist in collaborative mapping of possible **re-usable common paths** to a shared vision:

- Requires collective action
- Different groups working on different parts of the problem
- Together pieces provide potential paths to realising vision
- Knowledge managements is required
- Treated as integral part of SDI



To get from where we are now to where we want to be

Enables the **past** to be leveraged to achieve a **future vision**.



## Conclusion

- SES/SEG can significantly improve the performance of government and deliver a better society, particularly in developing economies.
- Much work still needs to be done in R&D and implementing SES/SEG.
- **SES** is here to stay and is rapidly offering new opportunities to government and wider society.
- Jurisdictions and related organizations and spatial associations will need to work together over the long-term if the **vision** of a *spatially enabled society* is to become reality.

## GSDI Association A Partner in Setting the Global Agenda

[www.gsdi.org](http://www.gsdi.org)

## GSDI Vision

Foster SDI development locally to globally:

- Betterment of societies through spatial enablement
- Promote access to data at a variety of scales and from multiple sources
- Common standards and interoperable systems and techniques
- Heavy reliance on partners world-wide
- The betterment of societies through **spatial enablement** is one of my goals.

## GIK Network


A major project focus of the organization over the past twelve months as well as the months ahead is further development of

### **Geographic Information Knowledge Network**

(GIK Network)

<http://giknetwork.org>

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Express your opinion in this quarterly one question survey. Accumulated responses are posted at the end of each quarter.




**GSDI 12 WORLD CONFERENCE**  
Realising Spatially Enabled Societies

**GSDI 12 World Conference**  
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Held in conjunction with the  
16<sup>th</sup> Annual Meeting of Permanent Committee on  
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01



# GSDI 12 WORLD CONFERENCE

Realising Spatially Enabled Societies

Welcome Reception: Let's Fly



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# GSDI 12 WORLD CONFERENCE

Realising Spatially Enabled Societies

Conference Dinner @ Asian Civilisations Museum



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03







**Thank you**  
[abbas.r@unimelb.edu.au](mailto:abbas.r@unimelb.edu.au)