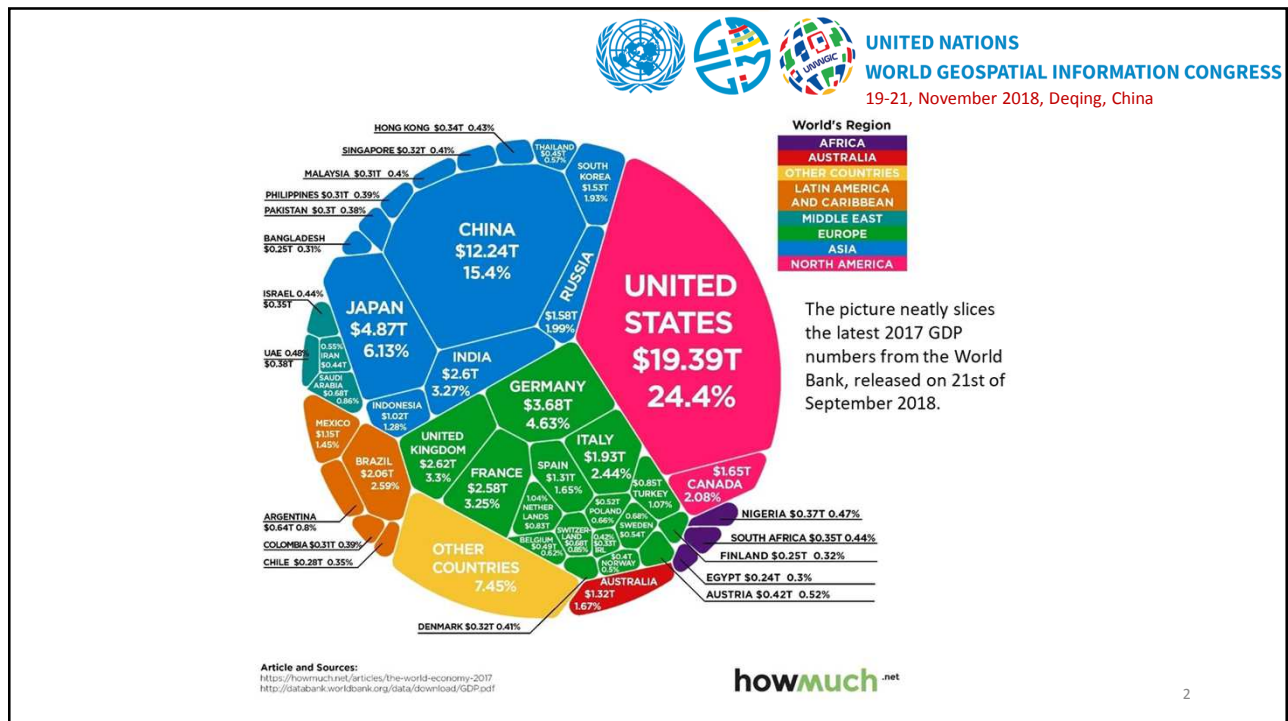


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SESSION: Digital Silk Road and International Partnerships

International Collaborations for DBAR
- Private Sector Perspective

Dr Zaffar Sadiq Mohamed-Ghouse
 EXECUTIVE DIRECTOR - Strategic Consulting, Spatial Vision, Australia &
 PRESIDENT, Surveying & Spatial Sciences Institute, Australia
 FORMER DIRECTOR- INTERNATIONAL FRONTIER SI (CRCSI), Australia
 zaffar.mg@spatialvision.com.au



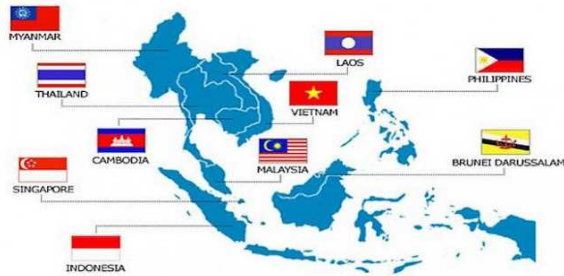


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“Viewed as a single entity, the region would rank as the sixth-largest economy in the world, and the second largest destination for Foreign Direct Investment.”

– Nielsen and AlphaBeta – Rethinking ASEAN, July 2017

ASEAN Master Plan on Connectivity (MPAC)2025



Sustainable Infrastructure: Given that ASEAN needs at least **US\$110 billion** of infrastructure investment each year to support future growth, the MPAC 2025 aims to help investors seize opportunities in sustainable infrastructure by improving project preparations, enhancing infrastructure productivity and supporting cities in adopting sustainable practices.

Digital Innovation: **Digital technologies in ASEAN** could potentially be worth up to **US\$625 billion by 2030**, which may be derived from increased efficiency, new products and services. Capturing digital innovation requires the establishment of regulatory frameworks for the delivery of new digital services; support for the sharing of best practices on open data; and equipping micro, small and medium enterprises (MSMEs) with the capabilities to access these new technologies.

Source: <http://asean.org/asean-leaders-adopt-master-plan-on-connectivity-2025/>

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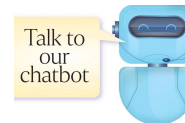


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Global Government Policy making trends*

“Its clear that status quo is insufficient to address the nature of today’s challenges” - OECD

- **The wide availability and uses of data saves money and lives** (Eg: London uses data to predict which children will be abused saves council \$1 Million in early intervention; Eg: Ukraine saves \$37 Million on drugs using anti-corruption app)
- **Government delivers more with less using AI while developing systems to assess its impact** (Eg: Singapore, Chatbots show the way in using tech to boost health care: Patients who are unwell could, in the future, be chatting with software that can assess their conditions and advise them to visit the right hospital or clinic)
- **User centred co-creation, design & implementation are an integral part of policy making – inline with citizen expectation** (Eg: Estonia’s data exchange lets you pay taxes in 5 minutes!)
- **Experimentation forms the basis for evidence and even iteration happens in the open** (Eg: Canada’s open default procurement: Open procurement process hopes to improve open by default pilot portal, speed up innovation)
- **Governments increasingly leveraging the Private and Philanthropic and civic sectors to deliver more with less** (Eg: US Government & IBM –PTech programme train a generation of technologies to schools. The school, partly funded by IBM and training students to suit the company’s needs (14 Australian schools are being trained))
- **Every year, Global Government spends \$8 Trillions goods and services**
- **Cities leading the way on innovative policymaking**



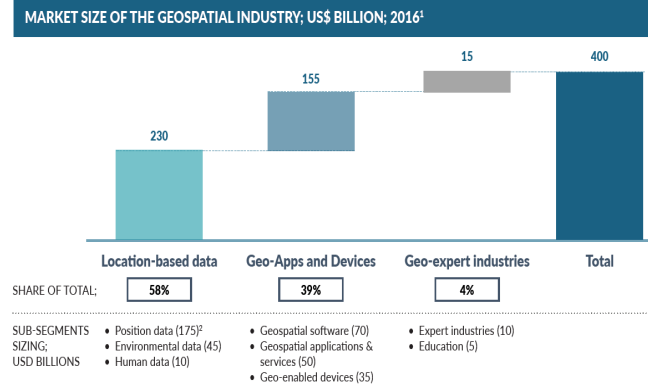
* Source policy workshop at PMC by Ms Nitika Agarwal, COO Apolitical on 31-10-2018

4



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LOCATION-BASED DATA REPRESENTS MORE THAN HALF OF THE ESTIMATED US\$400 BILLION GEOSPATIAL INDUSTRY



1. All figures are in 2016 US dollars. Rounded to nearest US\$5 billion.
2. Only 2015 data available, includes infrastructure components necessary to position data
Source: Data in exhibit is estimated by AlphaBeta using a range of original and third party sources

Estimated Global Geospatial Industry Size

5



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GEOSPATIAL BUSINESS POTENTIAL (SOME EXAMPLES)

Smart Cities & Internet of Things (IoT)

- IoT deployments will create **\$421 billion in economic value** for cities worldwide

Big Data Analytics

- Worldwide big data technology and services market to grow to **\$48.6 billion in 2019**

Mobile Sensors & Mapping

- The mobile mapping market size is estimated to grow to **\$26.6 billion by 2020**

Indoor Positioning & Mapping

- By 2018, around **\$10 billion** in spending to be touched or directly affected by indoor location
- Global indoor location market is predicted to grow to **\$4.4 billion by 2019**

Cloud Computing

- Global cloud computing services market to reach **\$127 billion by 2017**

Open Data

- Globally, seven sectors alone could generate **\$3 to \$5 trillion a year** in additional value as a result of open data
- For 2016-2020, the direct market size for open data in Europe is estimated at **€325 billion**

Location Based Services

- By 2019, there will be over **7 billion GNSS devices**

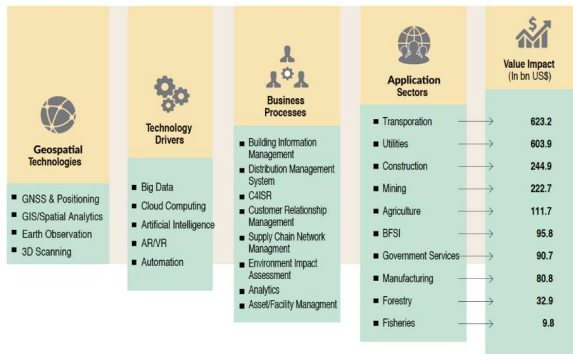
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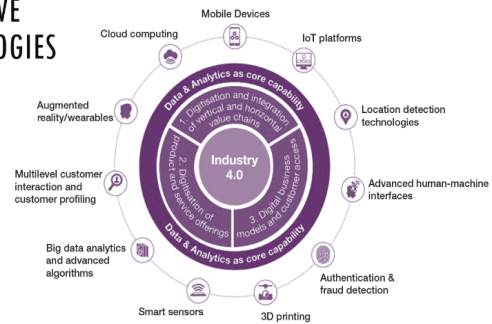


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GLOBAL TRENDS AND INFLUENCES



DISRUPTIVE TECHNOLOGIES



Geospatial Technologies and Value Impact (US\$)

Source: <https://geobuiz.com/geobuiz-2018-report.html>

Source: <http://www.crcsi.com.au/news/global-outlook-2018/>



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“Digital Belt and Road Initiative” to cope with common economic, developmental and environmental challenges pertinent to involved countries. – Prof. Guo

The 65 countries within the ‘Belt & Road’ regions are facing some common challenges:

- Global environmental change
- Food security
- Protection of world heritage sites,
- Unbalanced economic and urban development
- Disaster risk assessment and
- Other issues calling for cooperation across borders



Remote sensing image map of Belt and Road regions. (Image: Courtesy of NASA.)



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Introduction for PPP

PRODUCTS AND SERVICES

What are the key products and services required to support the geospatial sector in DBAR and what are the factors impacting their feasibility?

INVESTMENT

What are the important investment opportunities and partnerships required to develop the geospatial sector by Private Sector within the DBAR?

9



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APPROACH

Industry consultation

To identify relevant stakeholders both within DBAR and external to the DBAR

- By engaging stakeholder

Identification of Focus Area

For the development of surveying and geospatial sector within DBAR

- Large scale geospatial R&D and commercialisation
- The role of national transformation programs
- The role of international multi-lateral partnerships
- Management of Public Private Partnerships
- The role of industry Business and Professional Member associations in developing leadership
- The status of Geospatial small enterprise development
- The status of Geospatial sector development and education

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APPROACH

Other Approaches

- What factors are considered when examining Investment opportunities undertaken by Government and by the Private Sector?
- How are Investment opportunities formed within the DBAR?
- What is the extent of collaboration that exists between Government Ministries, Academia and the Private Sector?
- To what level are initiatives known to DBAR that may have formed in other Government Ministries, which may overlap with DBAR focus areas (e.g. CORS systems, Earth Observation....)
- What are the success measures that the DBAR is seeking to demonstrate through investment initiatives?

11



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APPROACH

Other Approaches

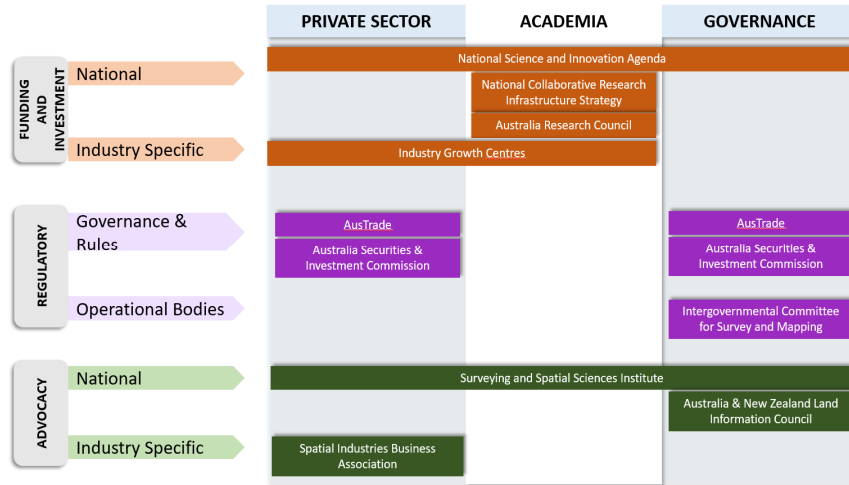
- Who are the main organisations and Ministries involved in developing investment initiatives?
- How is foreign investment currently attracted?
- What is the level of 'Sector' activity realised through:
 - local businesses?
 - foreign organisations?
- What are the perceived barriers to sourcing new Investment opportunities (either as projects, new businesses or systems)?
- Where have investment initiatives demonstrated success for the DBAR?

12



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AUSTRALIAN GEOSPATIAL INVESTMENT FRAMEWORK



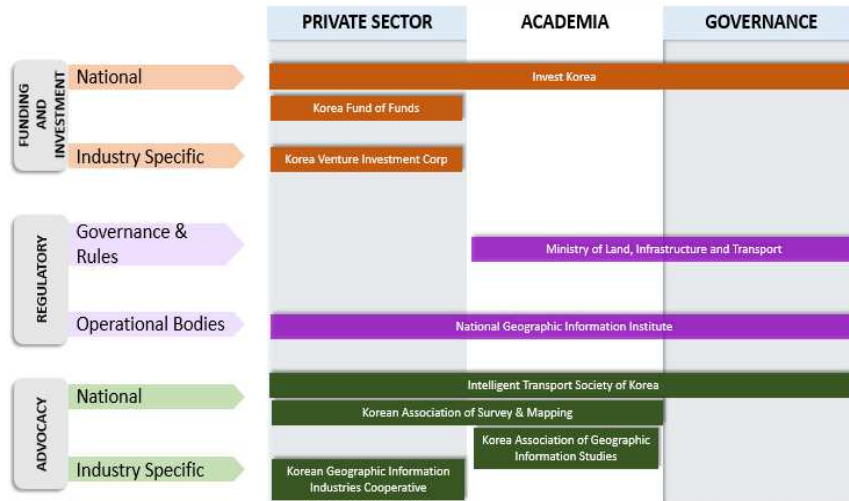
Main Australian Geospatial Related Investment Bodies

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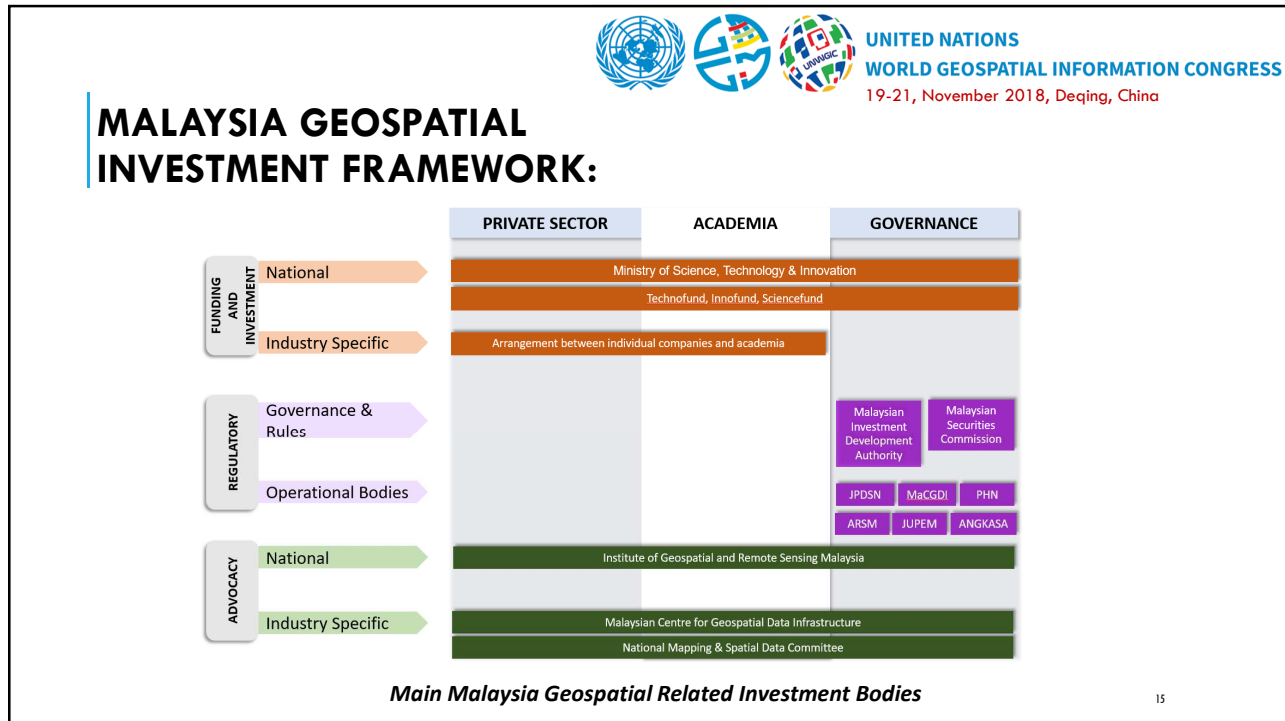
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KOREA GEOSPATIAL INVESTMENT FRAMEWORK:

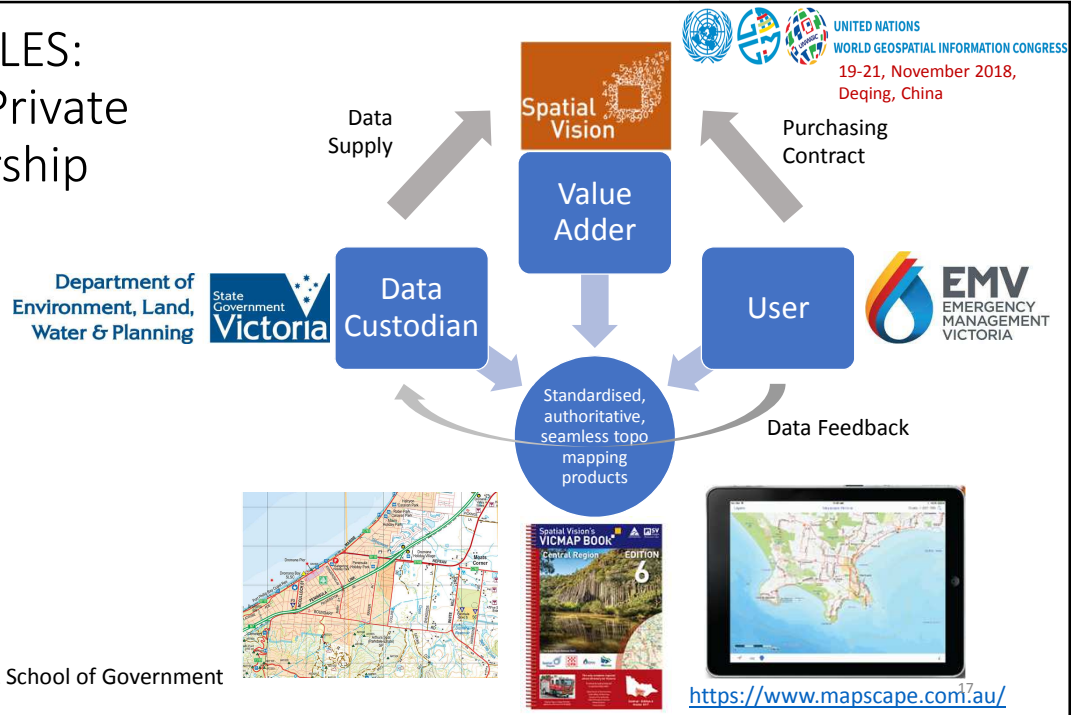


Main Korean Geospatial Related Investment Bodies

14



EXAMPLES:
Public Private
Partnership



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Thank You!

Developing an enduring and positive impact on our society using Geospatial information!!!