



UNITED NATIONS

WORLD GEOSPATIAL INFORMATION CONGRESS

19-21, November 2018, Deqing, China

SESSION: Digital Silk Road and International Partnerships

International Collaborations for DBAR

- Private Sector Perspective

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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.



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**

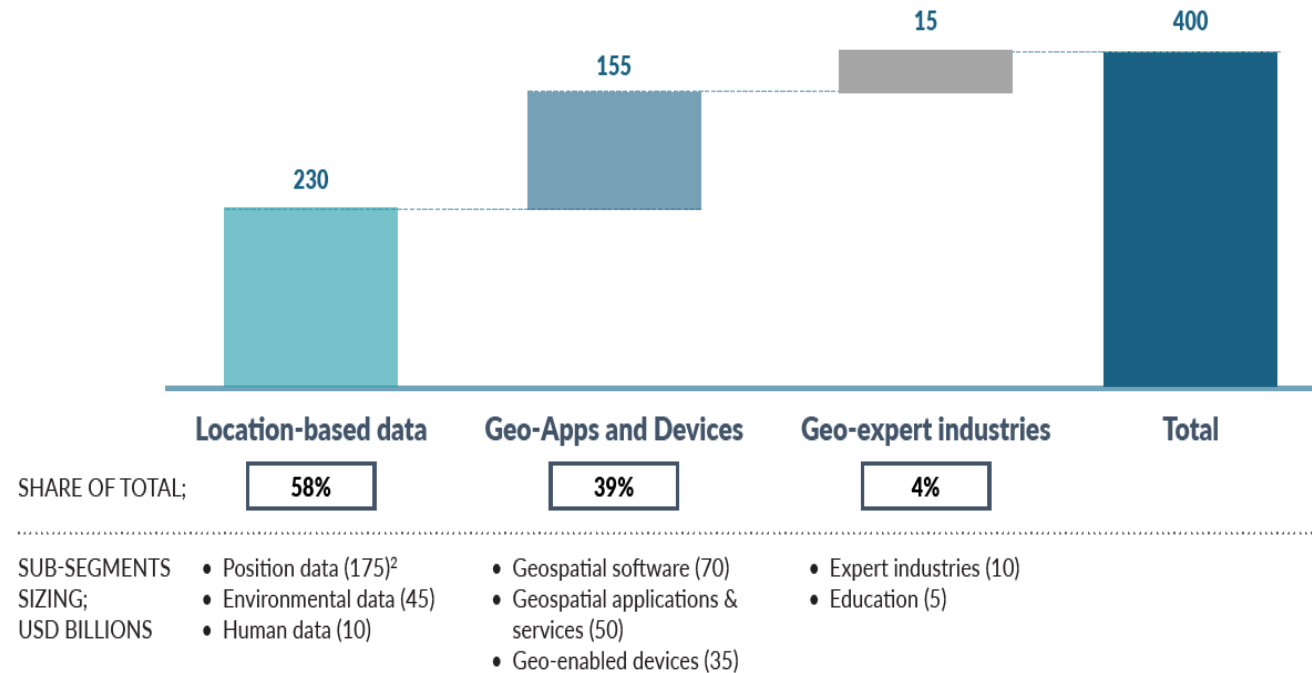


* Source policy workshop at PMC by Ms Nitika Agarwal, COO Apolitical on 31-10-2018



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

MARKET SIZE OF THE GEOSPATIAL INDUSTRY; US\$ BILLION; 2016¹



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



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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**

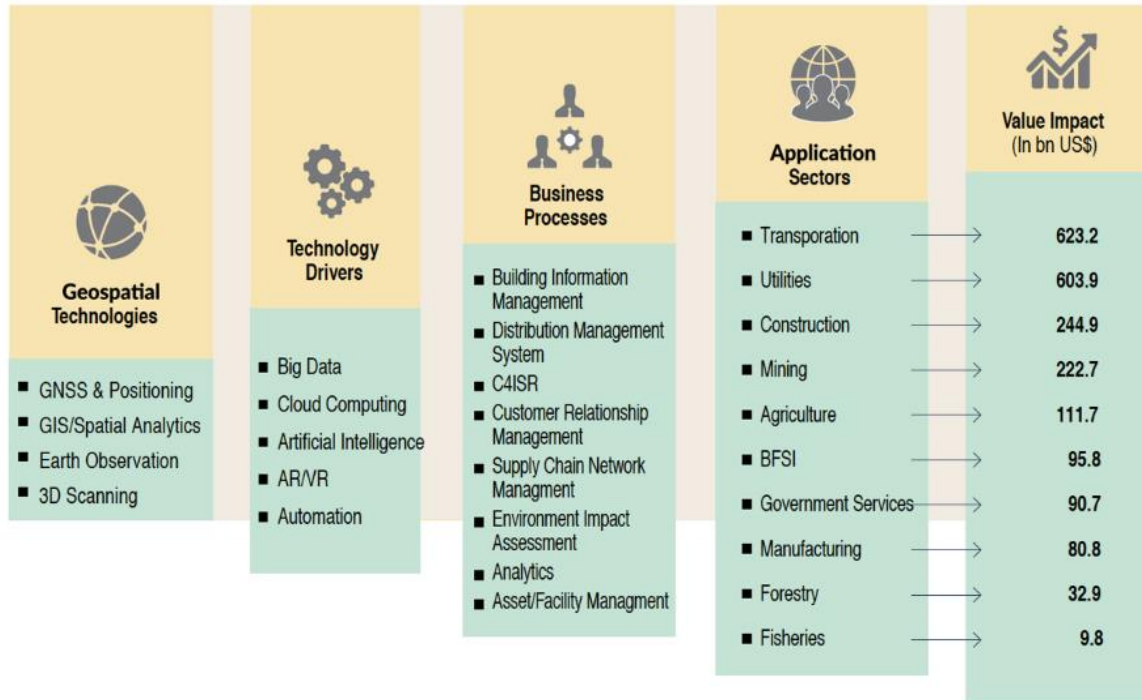
Location Based Services

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

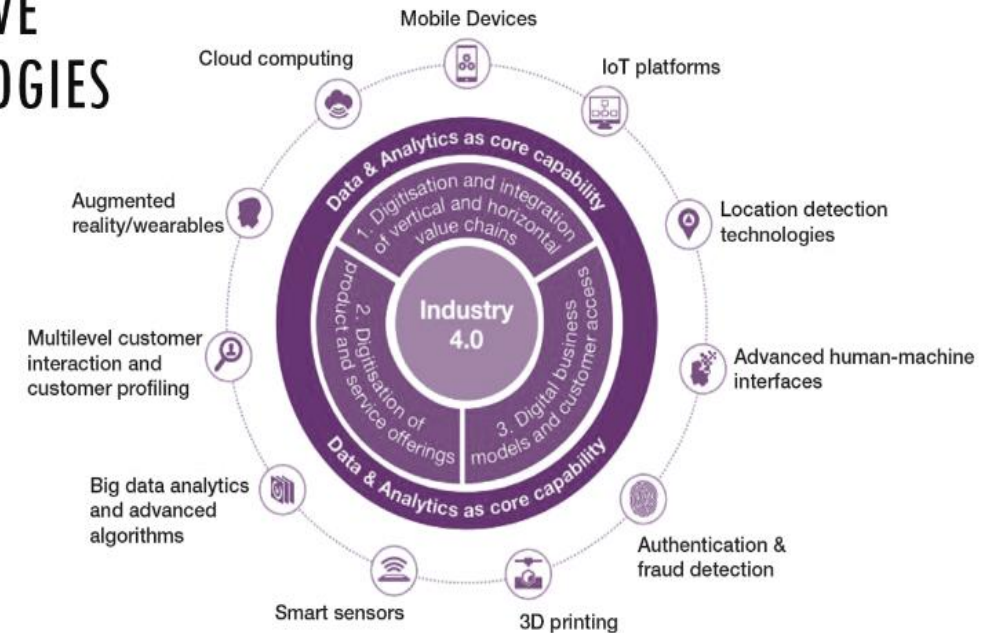
GEOSPATIAL
WORLD 



GLOBAL TRENDS AND INFLUENCES



DISRUPTIVE TECHNOLOGIES



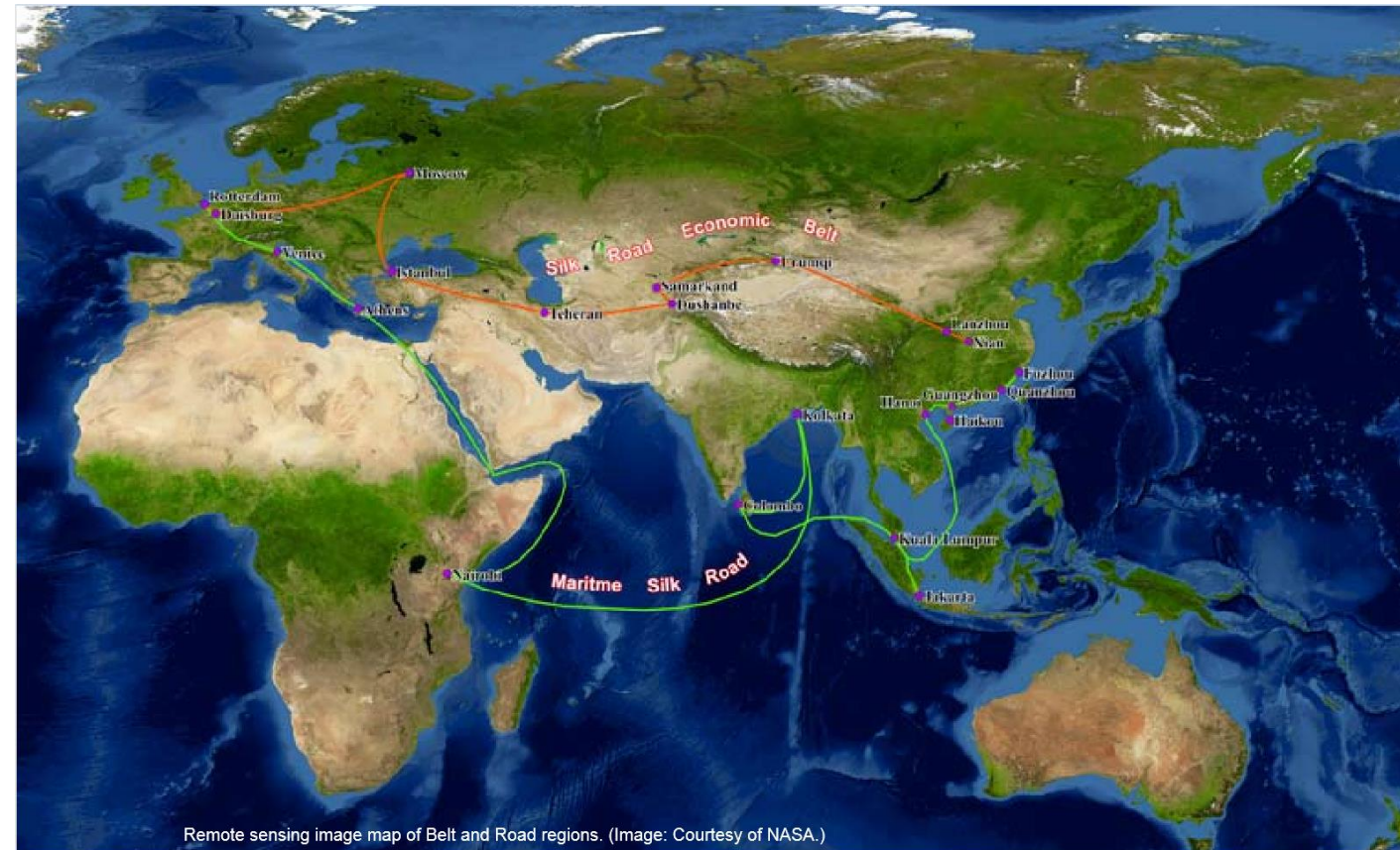
Geospatial Technologies and Value Impact (US\$)



“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





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?



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



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?



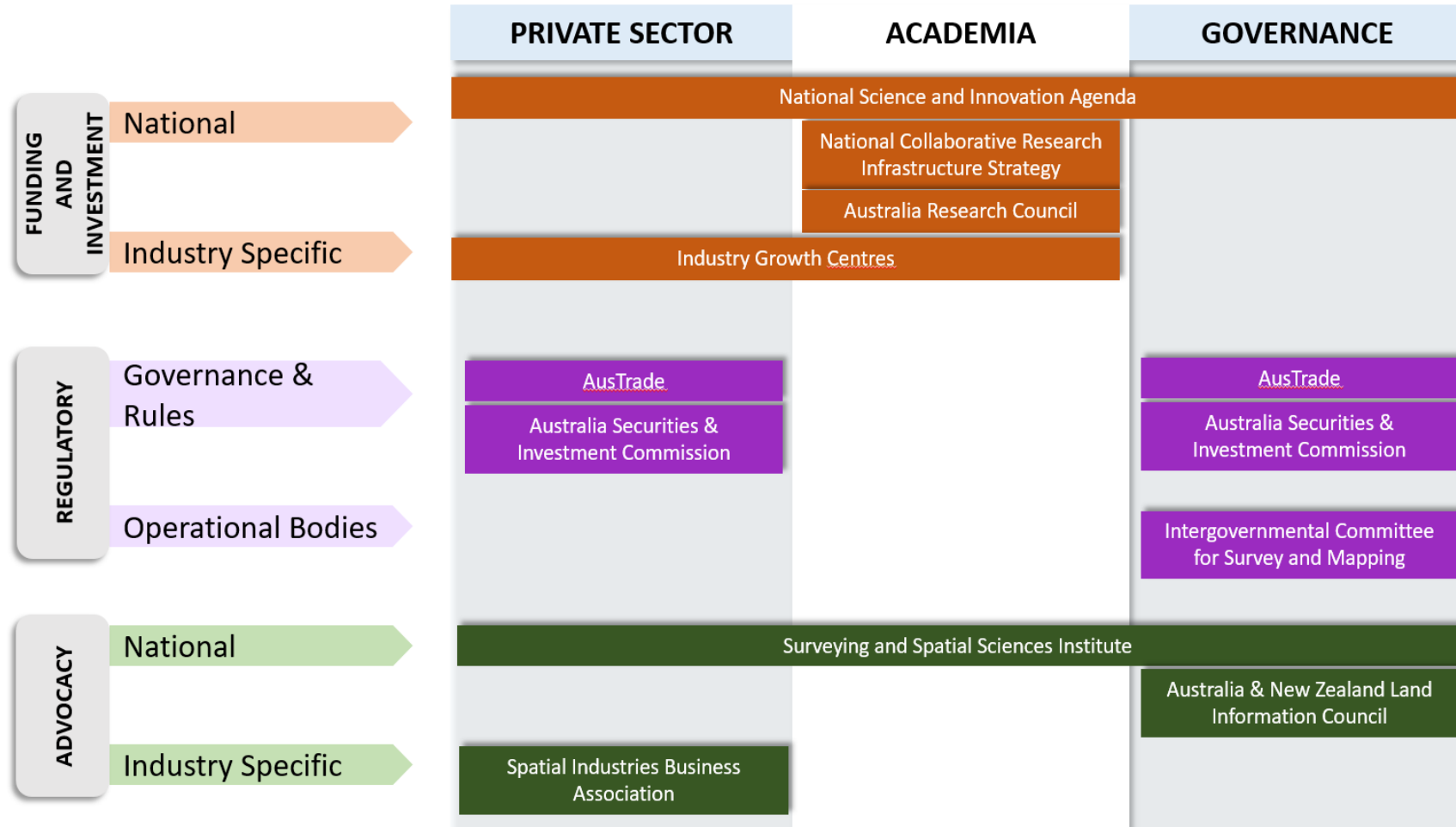
APPROACH

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?



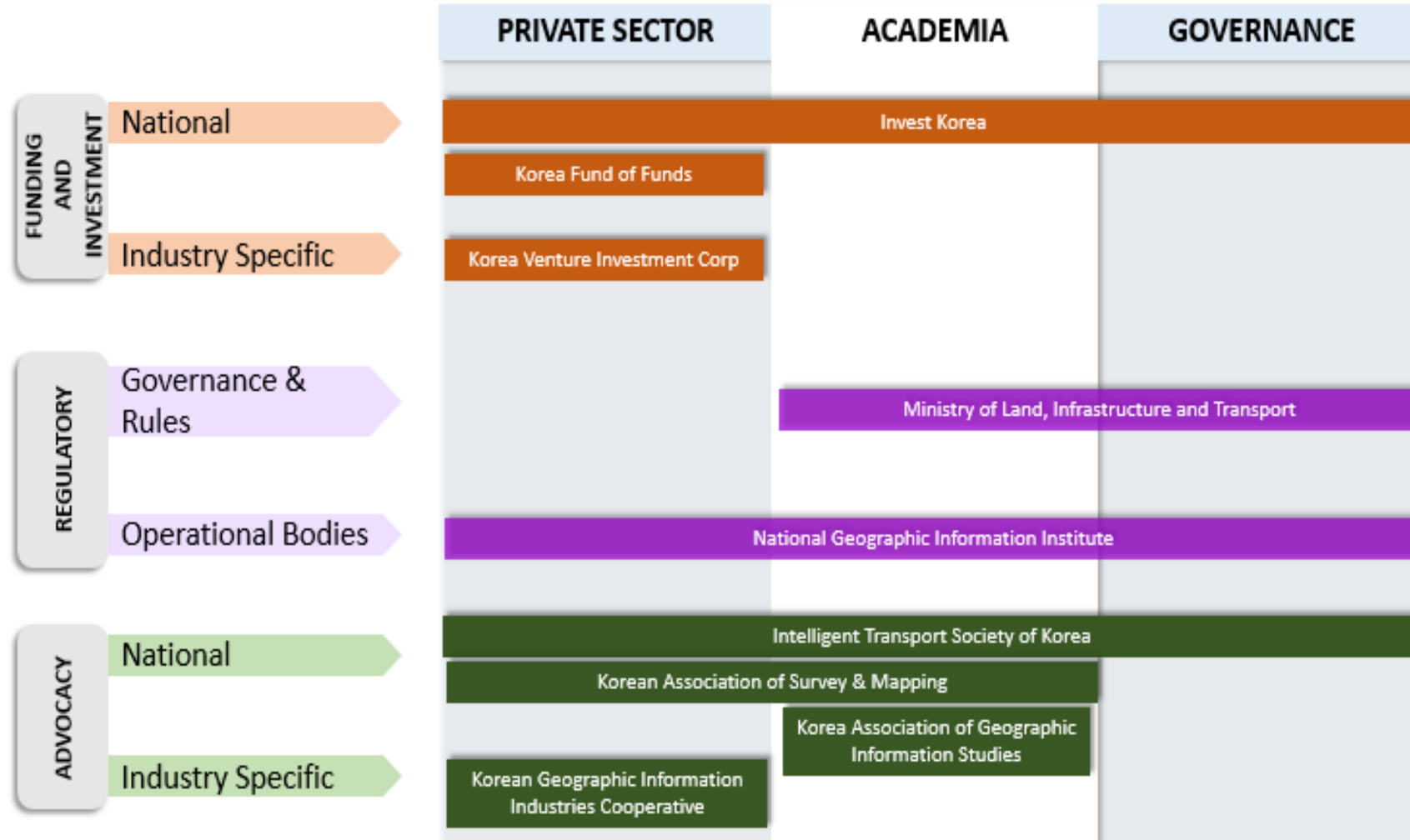
AUSTRALIAN GEOSPATIAL INVESTMENT FRAMEWORK



Main Australian Geospatial Related Investment Bodies



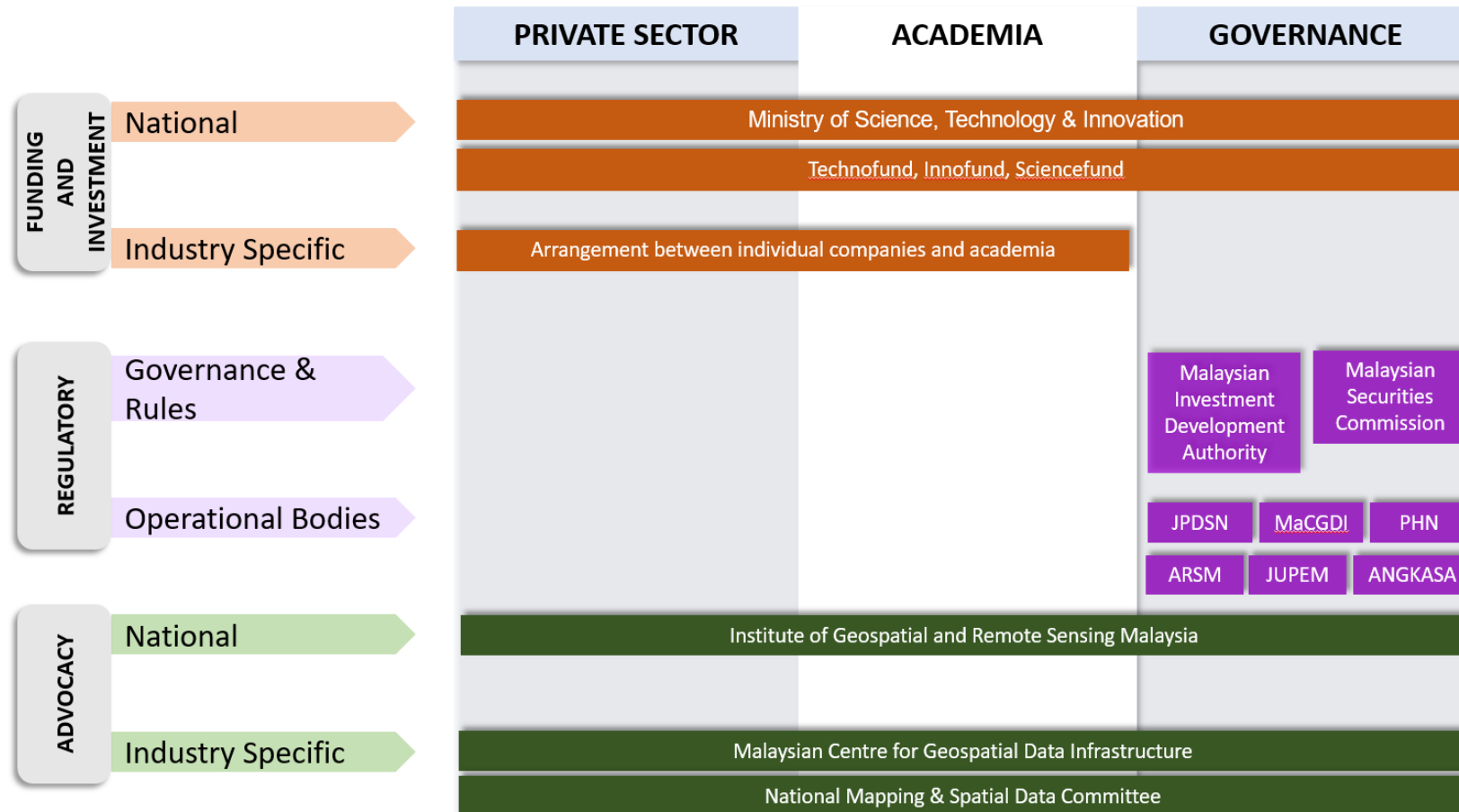
KOREA GEOSPATIAL INVESTMENT FRAMEWORK:



Main Korean Geospatial Related Investment Bodies



MALAYSIA GEOSPATIAL INVESTMENT FRAMEWORK:



Main Malaysia Geospatial Related Investment Bodies



Australia’s 2026 AGENDA : Spatial Industry Transformation & Growth Agenda

KEY PILLARS OF THE TRANSFORMATION

These pillars provide the framework for the 34 key initiatives that are the engine of the transformation:

A Public Infrastructure and Analytics

Accelerate provision of coordinated, open access, nation wide, public spatial information and analytic tools that are easy to use, and facilitate data mining and interpretation for the benefit of all users

B Innovation and Entrepreneurship

Foster spatial innovation and entrepreneurial skills, capitalising on technological advances, developing creative business models to open up new markets and opportunities

C Outreach

Raise the profile of the spatial sector, clearly communicating the value and contribution that location intelligence brings to the economy and society

D Research and Development

Create a nation wide, coordinated, collaborative and focused spatial R&D agenda that meets changing national needs and continues to grow linkages between research, innovation and commercialisation

E Education, Training and Capacity Building

Introduce location-related training at all education levels, nation wide, including regional communities, to develop a well prepared and diverse workforce that benefits from fundamental spatial skills

F Representation

Unify and consolidate representative spatial bodies to speak with one voice, and provide effective leadership and advocacy for spatial



EXAMPLES: Public Private Partnership



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Department of
Environment, Land,
Water & Planning



Data
Custodian

Data
Supply

Spatial
Vision

Value
Adder

Purchasing
Contract

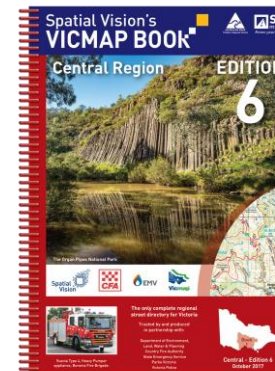


User



Standardised,
authoritative,
seamless topo
mapping
products

Data Feedback



Cited by the ANZ School of Government

<https://www.mapscape.com.au/>



Thank You!

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