

# Public-Private Partnership: Evolving Integrated Geospatial Knowledge Platforms

5th High Level Forum on UN-GGIM

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**PUBLIC - PRIVATE  
PARTNERSHIP  
FOR  
WATER AND SANITATION**



**COME ON..  
ONE OF YOU  
HAS TO  
TAKE THE  
FIRST  
STEP !!**

**PUBLIC**

**PRIVATE**



# PPP Stakeholders and Value





## Need for Pioneering Role from Governments

A public–private partnership (PPP, 3P or P3) is a cooperative arrangement between two or more public and private sectors, typically of a long-term nature. **Governments have used such a mix of public and private endeavors throughout history.**

For governments seeking to expand scalability of infrastructure and services, the **public-private partnership** offers an option that lies somewhere between public procurement and privatization

Ideally, it brings private sector competencies, efficiencies, and capital to improving public assets or services

Market Size and accumulated business value and impact on economy and society are primary parameters determining political attention, scope and charter of public private partnerships

**Do we need  
Public Private  
Partnerships?**

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**Do we understand  
geospatial industry?**



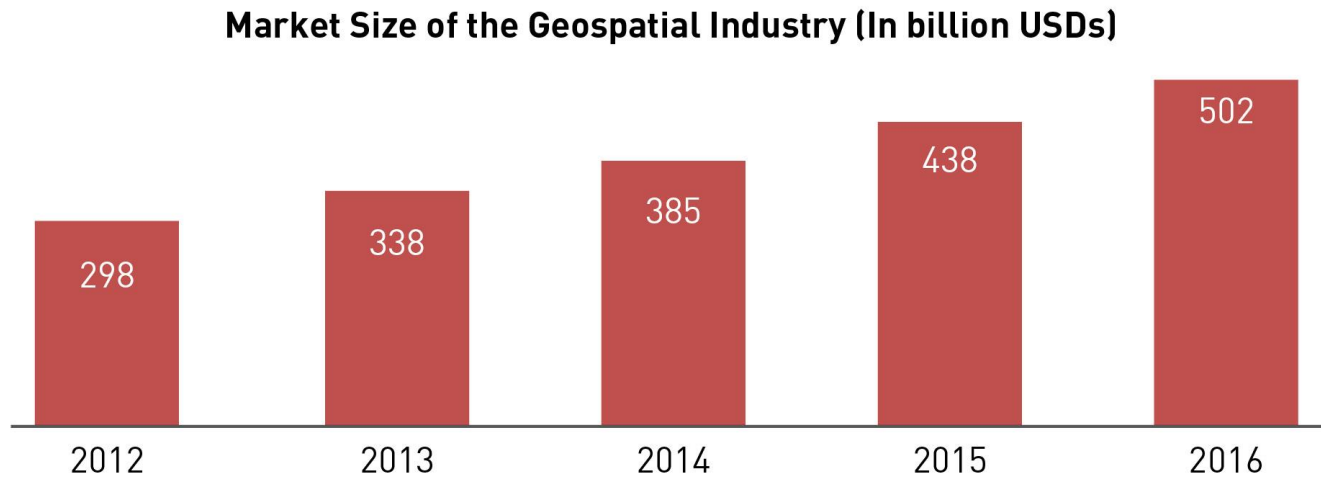
# **Geospatial Services Market, Value Impact, Drivers and Policy Imperatives**





# | The Global Geospatial Market

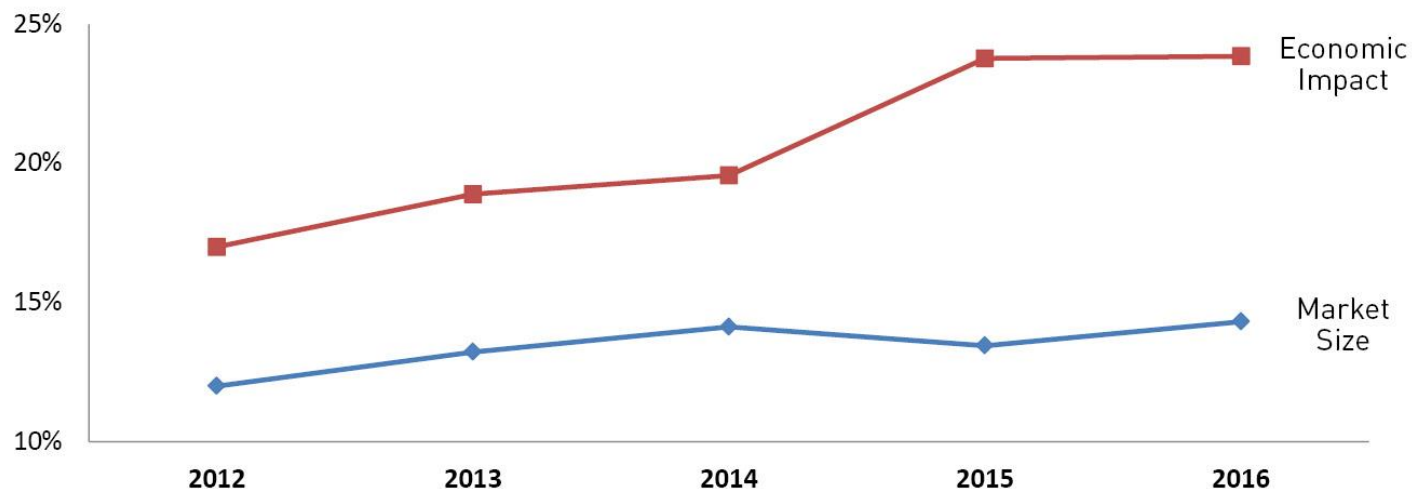
- The geospatial industry is estimated to be worth **USD 502 billion** in 2016
- Between 2012 and 2016, the industry grew at a **CAGR of 10.9%**
- The rapid growth in the recent years can be attributed to quicker uptake among new user industries
- Developing ecosystem of geospatial technologies and services is likely to result in robust future growth



# Rising Economic Impact of Geospatial Industry

- Growing adoption and commoditization of geospatial data has increased the economic impact of geospatial services.
- From USD 2.98 trillion in 2012, the economic impact of geospatial technologies and services is estimated to have reached **USD 6.49 trillion by 2016**.
- While revenues of geospatial companies grew at a CAGR of 10.9% between 2012 and 2016, the economic impact increased at an estimated **16.9%**

Growth Trends during 2012 and 2016



\*Source: GMC Analysis

‘Esri annual revenues estimated to be 1.4 billion and its software leverages somewhere between \$16 and \$19 billion in sales of data, hardware and services.’

.....Jack Dangermond  
2012

Following the above, on a very conservative estimate, technology companies (20 billion) put together leverage market size closer to the \$100-billion mark

# Global Geospatial Market and Impact- By AlphaBeta

## CONSUMER BENEFITS



Consumers value digital maps at up to  
**US\$105 PER USER**  
resulting in total benefits of  
**US\$347 BILLION PER YEAR.**



Digital maps reduce travel time by  
**12% ON AVERAGE.**  
The value of time saved is  
**US\$264 BILLION**  
based on local wage rates.



Consumers save more than  
**21 BILLION HOURS**  
per year The value of time saved is  
**US\$283 BILLION.**

## BUSINESS BENEFITS



Geospatial services industry  
generated revenue of approximately  
**US\$400 BILLION IN 2016.**



Geospatial services productivity  
impact in sectors representing  
**75% OF GLOBAL GDP.**



Digital maps have supported over  
**US\$1 TRILLION**  
of yearly sales for businesses.

## SOCIETAL BENEFITS



CO2 emissions from vehicles  
could be reduced by  
**1,686 MILLION MT**  
efficient trips, reduced congestions.

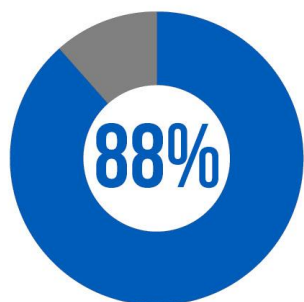


Potential employment directly  
linked to digital maps of over  
**4 MILLION JOBS GLOBALLY.**

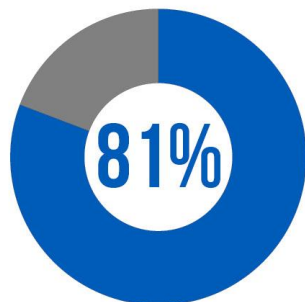


Emergency response times  
**DECREASED BY 20%**  
resulting in more lives saved.

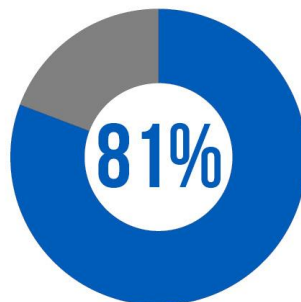
# Drivers for Geospatial Knowledge and Services



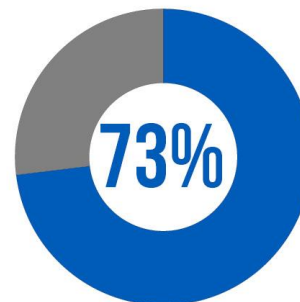
**BIG DATA ANALYTICS**



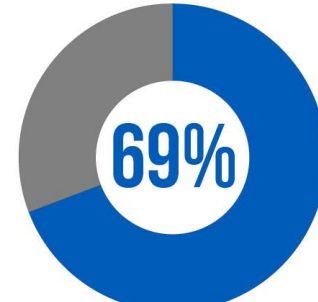
**AUTOMATION**



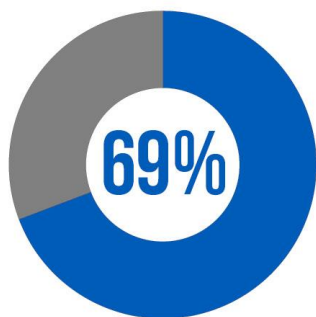
**CLOUD COMPUTING**



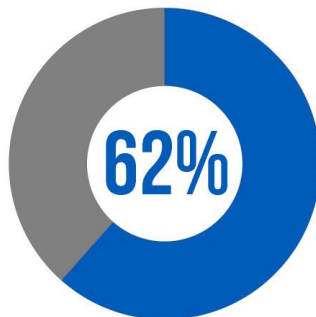
**NANO TECHNOLOGIES**



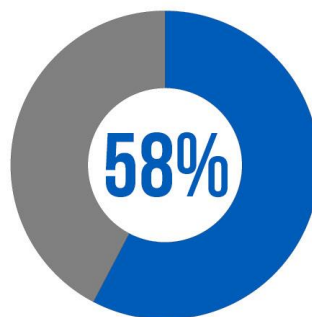
**AI & MACHINE  
LEARNING**



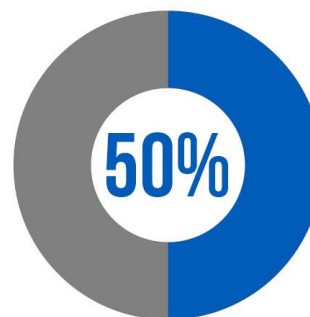
**INTERNET OF  
THINGS**



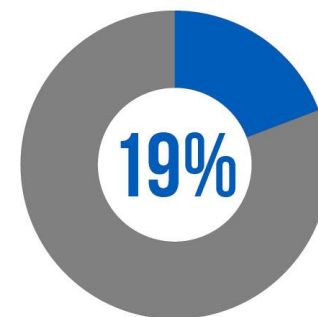
**AR/VR**



**ROBOTICS**



**BLOCKCHAIN**



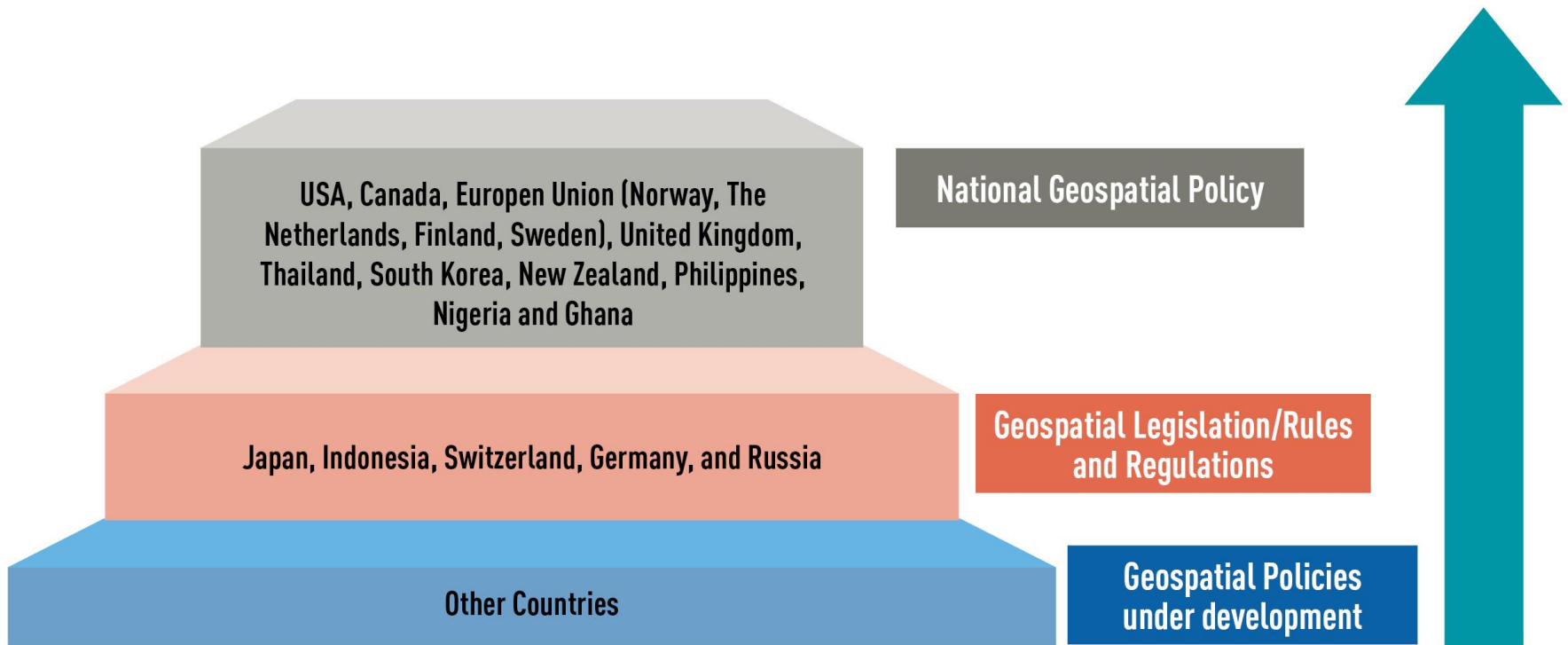
**3D PRINTING**

# | User Industries for Future Revenue Growth



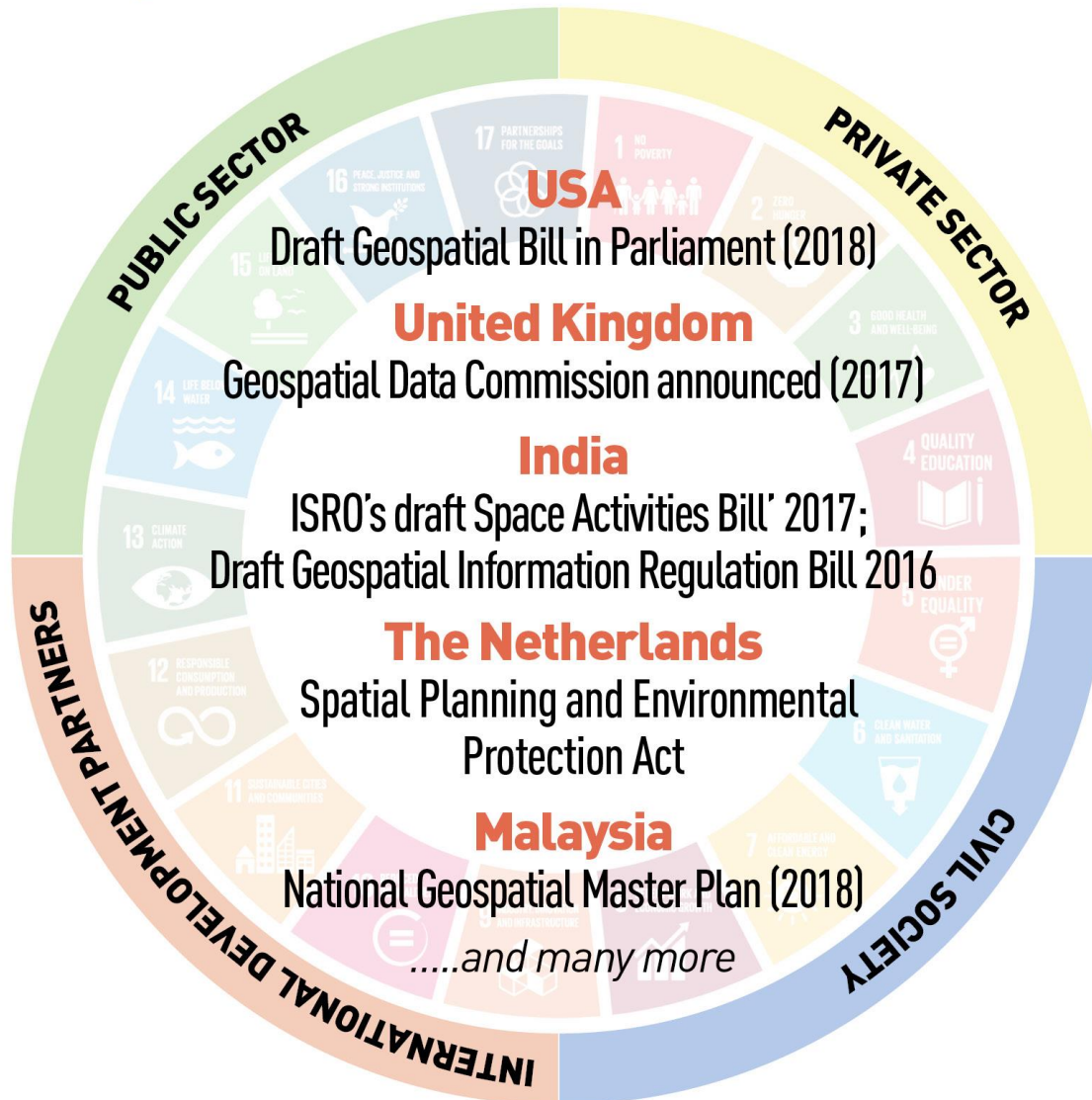


# Geospatial Policy Environment: Maturity



- Chile's National Geospatial Policy is in Parliament for approval
- United States of America has submitted a National Geospatial Bill in Parliament

# Policy Formulation Crucial for Development



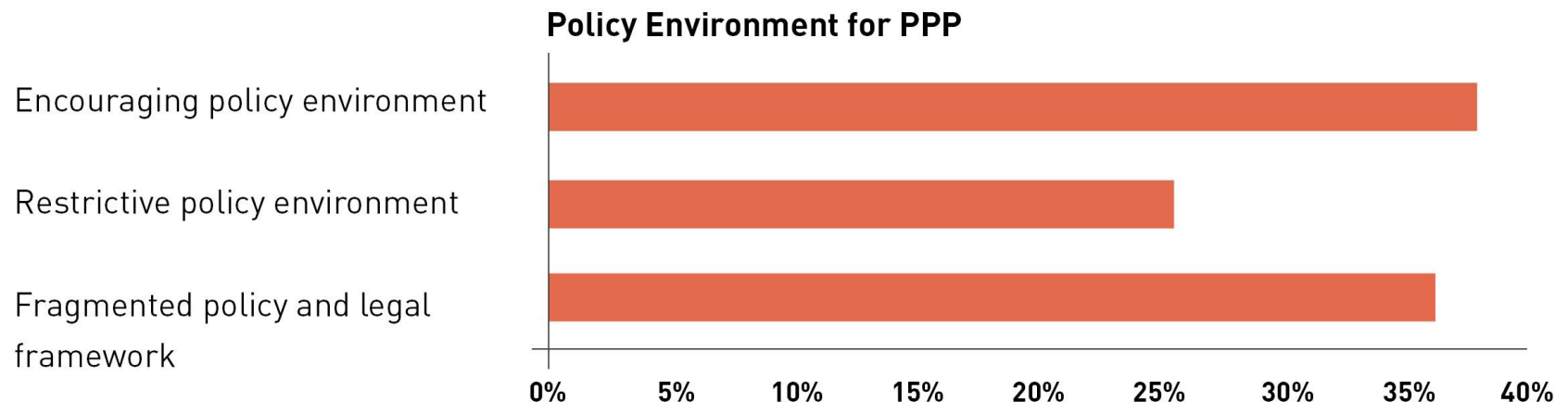
## NEW POLICIES

- Facilitate the impact of SDGs
- Scale up the operations of the SDGs communities
- Drive consumer-centric applications
- Expand the business value chains

# Need for a Progressive Policy Environment for PPP

## In a global scenario\*

- > **26%** of countries of the world foresee a need for holistic policy/regulations for Public Private Partnership
- > **38%** countries have a fragmented policy/regulation environment, thus, restricting Public Private Partnership
- > In conclusion, **64%** (approx.) of the countries largely are in need of policies which promote Public Private Partnership for enhancing commercial adoption of geospatial information and technology for economic growth

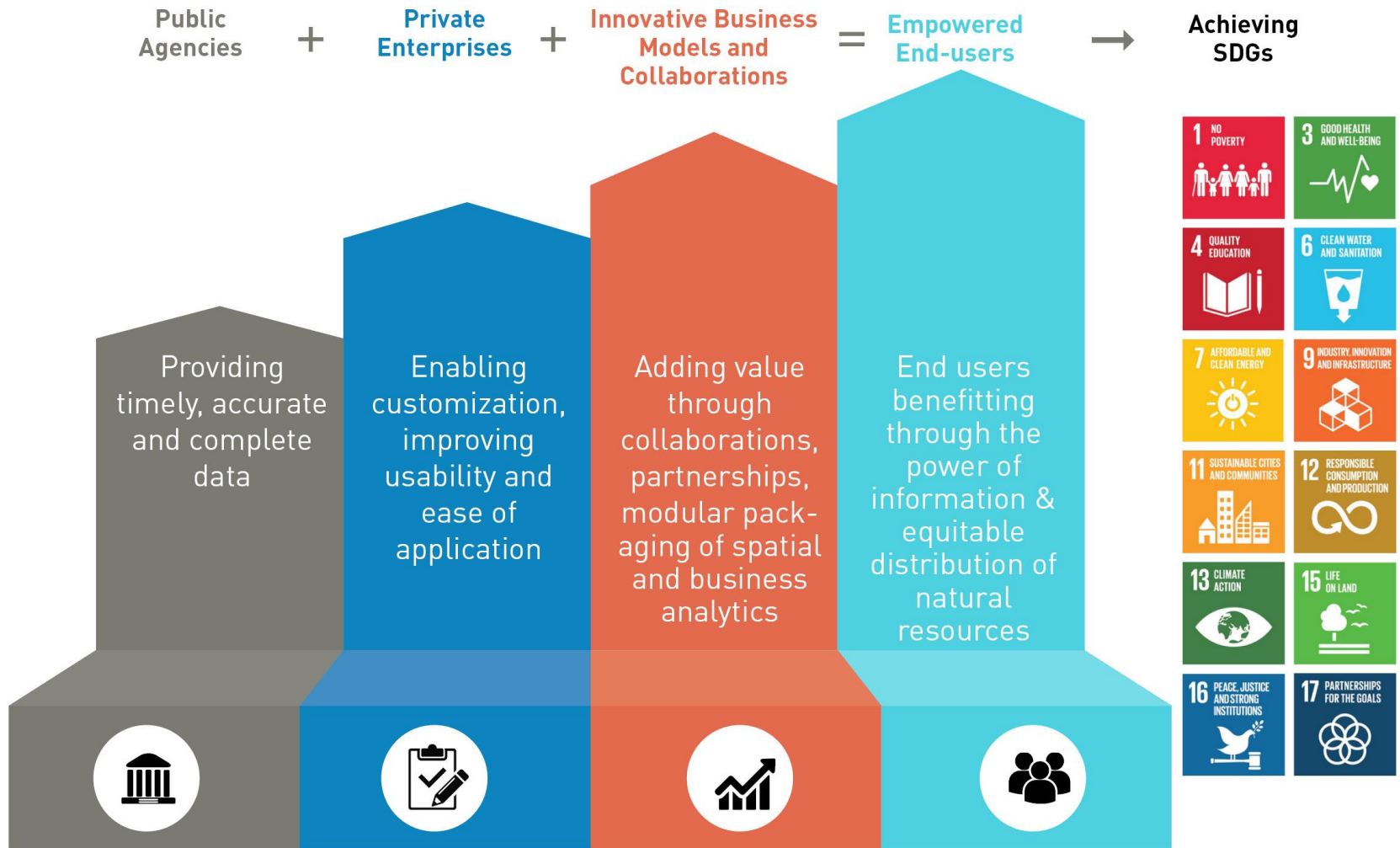


\*Source: GMC analysis

# PPP Stakeholders and Value





















# Public Private Partnership – Societal Benefits





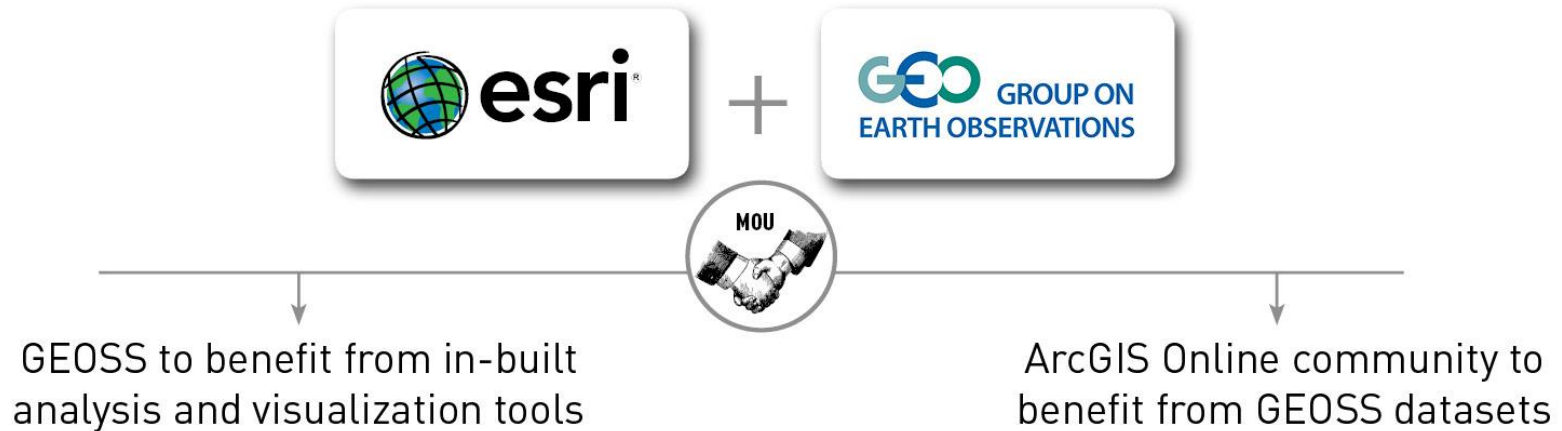
# Geospatial Knowledge in Public and Private Portals

Particulars	Public Portals	Private Portals
Volume of Content		
Data Authentication		
Ease of Navigation		
Interoperability		
Ease of Downloading Data		
Tools for Data Visualization		
Tools for Spatial Analytics		
Degree of Customization		
Ease of Integration for VAS-based Apps		

**A coming-together of public and private portals can offer the best of both worlds**



# Case Study: Convergence of Public and Private Portals



## Esri Community Portal for GEO

- Sign up for a free [ArcGIS Online Developer Subscription](#).
- [Start using ArcGIS Online](#) to discover what's available to help you jumpstart your apps or content!

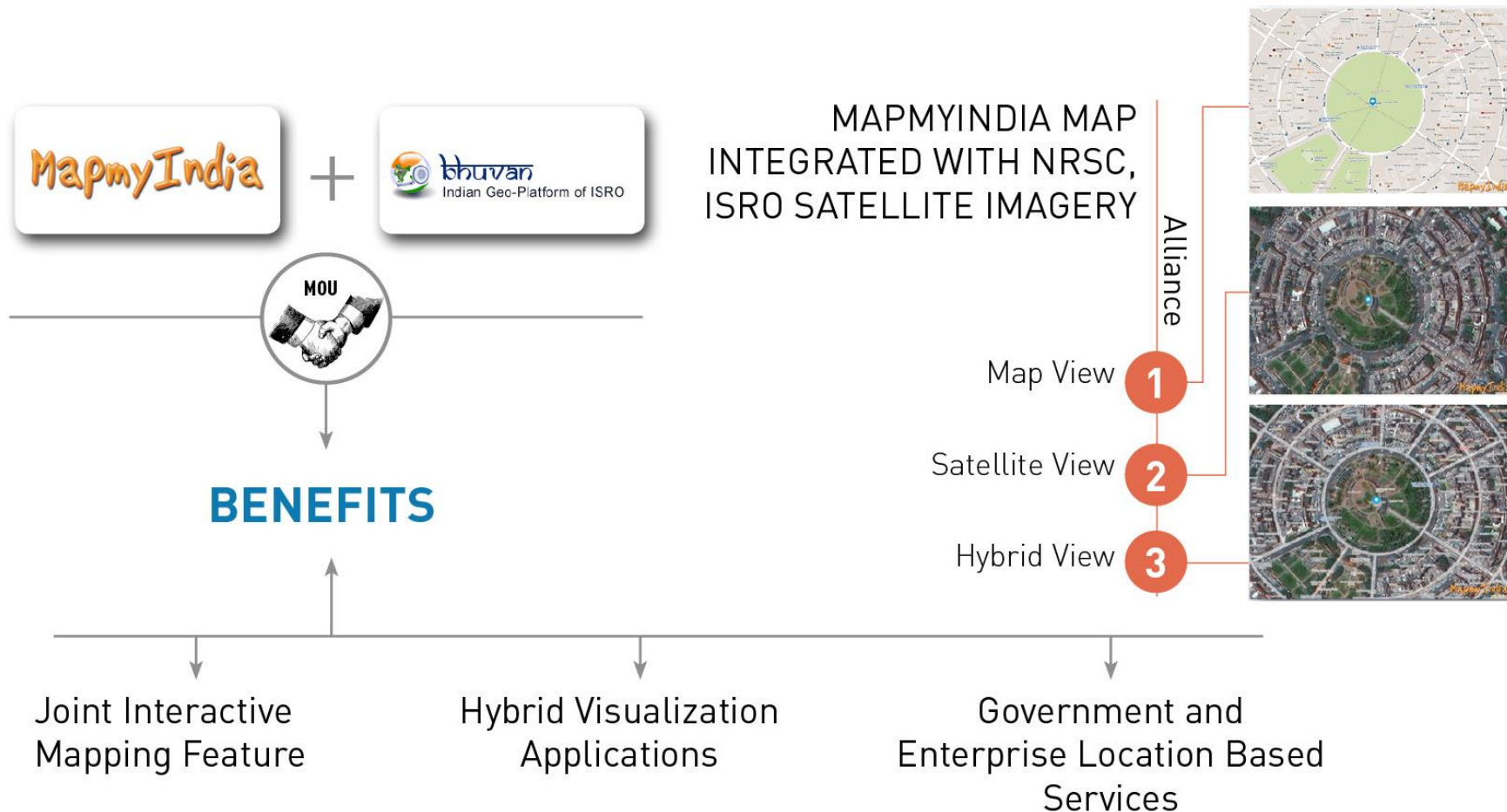


Four map thumbnails are displayed at the bottom, each with a title below it:

- Feeding the World**: A world map showing agricultural data.
- GEO Appathon 2014**: A map of the United States with various data points.
- Presidential Disaster Declarations v3**: A dark map of the United States with white outlines of disaster areas.
- GPCC 2010 Global Precipitation**: A globe showing global precipitation patterns with a color scale from blue to red.

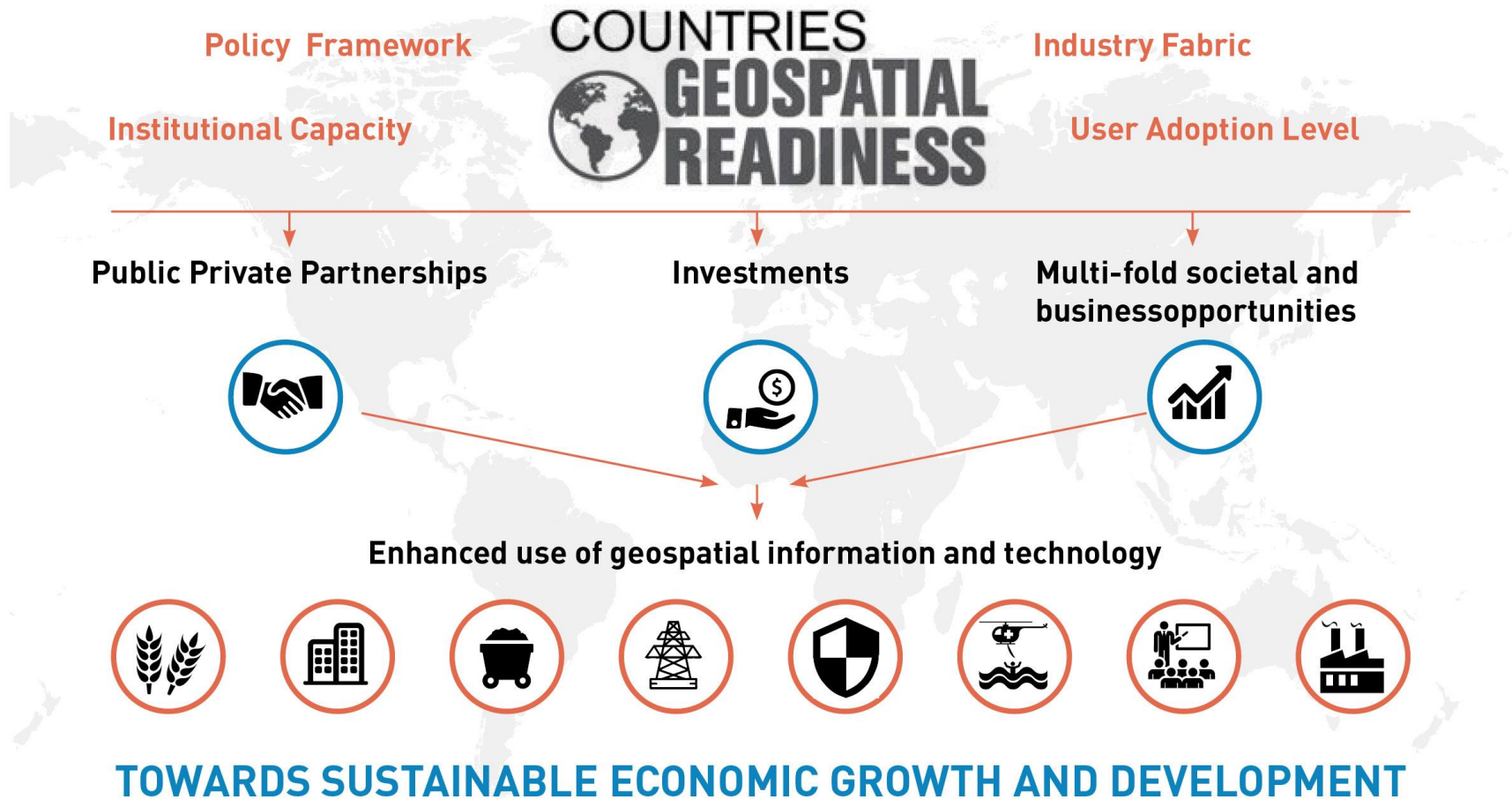
GEOSS seeks to address 9 societal benefit areas for Earth observations to address: disasters, health, energy, climate, agriculture, ecosystems, biodiversity, water, and weather. As governments and their partners continue to monitor the face of the Earth, the collection, storage, analysis, and sharing of these observations remain fragmented, incomplete, or redundant. Major observational gaps also remain (particularly as we seek to look *beneath* the surface of the land and the water). As such, GEO's credo is that "decision makers need a global, coordinated, comprehensive, and sustained system of observing systems."

# Case Study: Convergence of Public and Private Portals



# The Relevance of Geospatial Readiness

## Geospatial Data Infrastructure



**WAY FORWARD**

**EXPANDING HORIZONS**

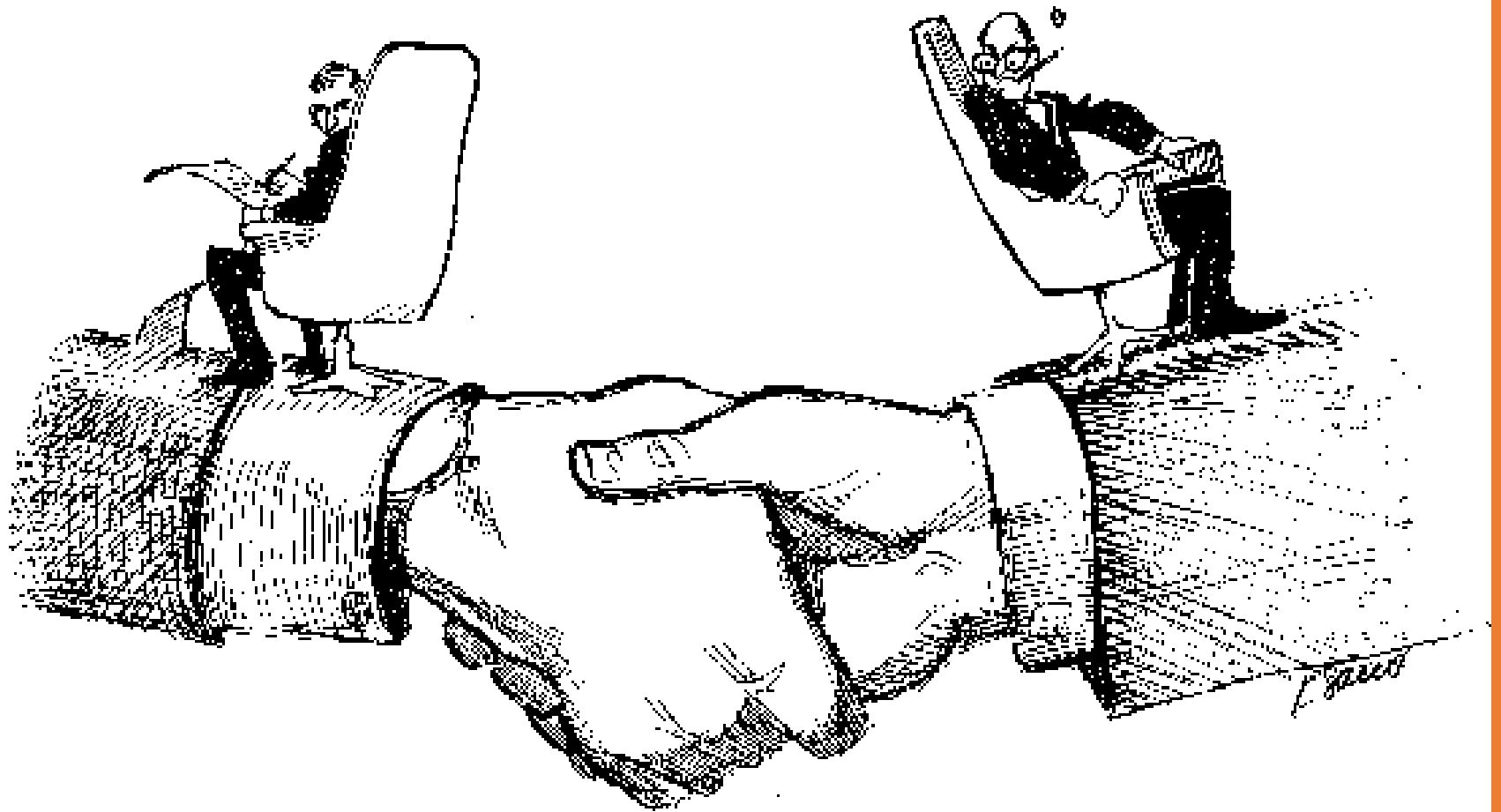
**FINDING MAINSTREAM**

**BUILDING MUTUAL TRUST**

**THINKING COLLECTIVELY**

**WORKING TOGETHER**

**COMMON GOAL AND  
COMMON GOOD**



Public-private partnerships take a lot of work.



# A Primer: World Geospatial Industry Council

## VISION

To be the nodal institution to advance the role of Geospatial Industry globally and deepen its contribution to the world economy and society.

## Objectives

### Think Laterally

- Co-create and strengthen understanding of geospatial value
- Partnerships with governments, regional and global entities, multilateral agencies

### Position Consciously

- Understand level of awareness, assess needs of relevant working groups
- Conscious policy level interventions
- Engagement with trade and industry bodies and professional institutions

### Grow Collectively

- Find collaboration and convergence in solution centric orientation
- Demonstrate collective shared value for the entire ecosystem and expand network





# THANK YOU!



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