#### Geospatial Knowledge at the Heart of Tomorrow's Global Digital Society

**The Power of** 

John Kedar 19<sup>th</sup> June 2023







### Did Covid provide a step change?





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https://idechile.maps.arcgis.com/apps/opsdashboard/index.html#/bde9421cea3047088482909bbba47a78

#### Did Covid provide a step change?

"We don't know when the next epidemic will strike, but I believe we can protect ourselves if we invest in better tools, a more effective early detection system, and a more robust global response system... There are also some interesting advances that leverage the power of computing to help predict where pandemics are likely to emerge and model different approaches to preventing or containing them." (Bill Gates, April 27, 2018)

# What is it our users want? Data or Knowledge?





#### The step change has been happening for years



"These companies do not recognise a 'geospatial sector', it is just data, analytics and user interfaces in which location plays a greater or lesser part. Innovative geospatially enabled businesses are the norm and set high user expectations."









approa



#### GKI Project: Advancing role of geospatial knowledge in world economy, society and environment



- 3 (4) year project with 3 phases:
  - Consider GKI
  - Consider user sectors
  - National deep dives
  - GKI readiness 75 countries

• Reach out:

- ~ 20 roundtables
- 3 GKI Summits
- Webinars and briefings
- Engagement with UN Future Geospatial Ecosystem

#### **GKI Project Year 2 User Industry Focus**



**Energy Transition** 







Transport & Infrastructure

**Autonomous Driving** 

Land Administration



Logistics and Supply Chain



Cities



Public Safety and Security



Agriculture

#### Main outputs and outcomes

#### Stakeholder Engagement



#### Disruption

#### **Tomorrow's Geospatial Infrastructure**

Vision

Geospatial knowledge at the heart of tomorrow's global digital society.

#### Geospatial Knowledge Infrastructure

..... a blueprint to integrate digital economies, societies and citizens with geospatial approaches, data and technologies and, in so doing, deliver the location-based knowledge, services and automation expected in this 4IR digital age



- Knowledge is the focus.
- Unified geo-digital ecosystem.
- Predictive.
- Led by users.
- Decentralized.
- Collaborative solutions.
- Agility.
- Achievable actions now and then scale.



### Integrated policy framework





- Established frameworks that maximise the benefits of geospatial knowledge to nations.
- A geo-digital infrastructure and economy.

**Geospatial Knowledge Infrastructure** 

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## Foundation data





- Foundation data as part of a national digital infrastructure.
- Foundation data that utilises 4IR technologies to meet user requirements for continuously updated data.

#### Partnerships and collaboration





Photo: https://www.geoworks.sg/

- Industry-government geospatial knowledge and foundation data partnerships.
- Diverse ideas innovative industry, academia and government.

### Industry leadership





- Increased use of geospatial capabilities across all industry sectors to meet user needs.
- Industry able to meet the exacting requirements of foundation data agencies and at year-on-year lowering prices.

### Applications, analytics and modelling





- Widespread use of geospatial tools, data and knowledge within consumer applications.
- Geospatial knowledge that provides prediction and foresight.
- Trust in geospatial derived knowledge.

## Geospatial dimension to the wider digital ecosystem





- Location a fundamental attribute within data and information is a core element of data infrastructures and business processes.
- Geospatial technologies, data and standards are seamlessly integrated onto the web

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#### Relationship between GKI and UN IGIF



for an Enhanced World Economy, Society and Environment

**Geospatial Knowledge Infrastructure** 

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#### Why a GKI Readiness Index?

#### LEADERS

| Rank<br>2022 | Country        | Score<br>(0-100) |
|--------------|----------------|------------------|
| 1            | USA            | 100.00           |
| 2            | United Kingdom | 83.89            |
| 3            | Denmark        | 81.52            |
| 4            | Netherlands    | 80.27            |
| 5            | Germany        | 78.53            |
| 6            | Switzerland    | 77.04            |
| 7            | Canada         | 75.10            |
| 8            | Singapore      | 74.82            |
| 9            | Ireland        | 72.09            |
| 10           | France         | 72.00            |
| 11           | Australia      | 71.69            |
| 12           | China          | 71.51            |
| 13           | Sweden         | 71.19            |
| 14           | Finland        | 70.55            |
| 15           | Norway         | 70.21            |

#### CHALLENGERS

| Rank<br>2022 | Country     | Score<br>(0-100) |
|--------------|-------------|------------------|
| 16           | Spain       | 69.54            |
| 17           | Japan       | 69.04            |
| 18           | Belgium     | 66.84            |
| 19           | Poland      | 65.97            |
| 20           | Estonia     | 64.18            |
| 21           | New Zealand | 63.02            |
| 22           | Italy       | 62.24            |
| 23           | Austria     | 62.16            |
| 24           | Portugal    | 60.17            |
| 25           | South Korea | 58.07            |
| 26           | Russia      | 58.03            |
| 27           | India       | 56.16            |



| Ran<br>202 | k<br>2 | Country      | Score<br>(0-100) |
|------------|--------|--------------|------------------|
| 28         |        | Hungary      | 55.68            |
| 29         |        | South Africa | 50.35            |
| 30         |        | Greece       | 47.88            |
| 31         | 2      | Bulgaria     | 47.47            |
| 32         | s      | Saudi Arabia | 46.93            |
| 33         |        | Indonesia    | 46.92            |
| 34         | Ú.     | Philippines  | 46.41            |
| 35         |        | Malaysia     | 46.06            |
| 36         |        | UAE          | 43.30            |
| 37         |        | Mexico       | 41.92            |
| 38         |        | Israel       | 41.64            |
| 39         |        | Brazil       | 41.60            |
| 40         |        | Argentina    | 39.75            |
| 41         | 8      | Thailand     | 39.25            |
| 42         | 8.     | Chile        | 38.54            |
| 43         |        | Bahrain      | 37.89            |
| 44         |        | Ukraine      | 37.36            |
| 45         |        | Colombia     | 36.96            |
| 46         |        | Iran         | 36.66            |
| 47         |        | Qatar        | 34.76            |
| 48         |        | Brunei       | 32.43            |
| 49         |        | Кепуа        | 27.29            |
| 50         |        | Kazakhastan  | 21.95            |

#### Geospatial Knowledge at the heart of tomorrow's global digital society

# Where next, once this project concludes?

<u>A Journey</u> To find out more:

GKI White Paper https://www.geospatialworld.net/gw-assets/pdf/GKI-White-Paper.pdf

GKI Phase 2 Report and Readiness Index https://b24-snpob1.bitrix24.site/GKI-Phase-2-Report-Download-2022

GKI Phase 3 Final Proposition – draft for discussion <u>https://geospatialworld.net/consulting/gw-assets/pdf/Draft-GKI-Proposition-Document.pdf</u>

