Geospatial Commission

National data : international solutions

Melanie Hutchinson, International Lead, Geospatial Commission

12 September 2024

The UK Geospatial Summit

Why?

- Recognised that resilience challenges are growing in scale and frequency.
- Communities all over the world face increasingly severe and frequent shocks and stresses related to natural hazards, economic uncertainty, global supply chain disruption and a changing geopolitical landscape.
- Technology is a valuable tool to help tackle these challenges.

Aims of the Summit

- To provide a forum to build a common understanding of what, where and how technology innovation can have a significant impact on resilience activities.
- To enable collective discussion on how recent advances in technology can be applied to resilience challenges.

The Summit brought together:

- 75 attendees from 10 countries
- 15 international speakers
- 6 Expo companies

Delegates comprised:

- Policy owners
- Thought leaders
- Representatives from the international geospatial community
- The technology community

Summit Day One

Outlined three global resilience issues where geospatial intelligence can support hazard risk mapping and mitigation:

- Natural hazards
- Sea level rise
- Food security

Presentations from technology leaders identified recent advances in areas such as AI, ML, EO, 3D mapping and PMD.

Summit Day Two

Facilitated roundtables on the resilience challenges considering:

- Opportunities and implementation challenges
- Scope for international collaboration to support delivery of solutions.

Three groups. Each group spent an hour discussing each resilience issue. As delegates rotated across each of the issues, discussion questions moved on, providing an evolving conversation.

Summit Outcomes: Natural Hazards

- **Data accessibility:** infrastructure not always available
- **Data in:** often the kind of information needed is the same, yet impacts are very different depending on the natural hazard.
- **Breaking down the silos:** need to look at the system as a whole and the connections within it (finance, infrastructure, food, people) as well as push-pull effects of each one.
- **Standards:** Should there be a standardised way of sharing information so there is a minimum viable way to integrate data?
- **Global foundational models:** a common understanding of space and time would be very useful at global level.

Summit Outcomes: Sea Level Rise

- A **leadership gap** related to the monitoring of sea level rise. A lot of countries care but they are looking for leadership. We are still working in silos and there is an opportunity for collaboration
- **Data accessibility** issues for example: near-shore areas/coastlines have been highlighted as areas with a lack of data but also a need for this data for being able to monitor sea level rise.
- **Availability and accessibility of technology.** There is technology available to get relevant data however, few countries and organisations have accessibility to it.

Summit Outcomes: Food Security

- It’s a big complex picture
- Need to look at individual parts that make up the global picture.
- *A clear problem statement:* Data and technology for food security analysis are not fully available or accessible, standardised or integrated across geography and time scales… Can we help to break down some of the barriers to data access?
- <u>Big ideas</u>
  - Farm level data sharing
  - Demand side modelling
  - Climate risk modelling
  - Communications - communicating in the right way to the right audience.

Conclusions (or food for further thought)

Often the technology and data needed to predict, monitor or respond to resilience challenges are available, however it is not always:

- Fully accessible
- Standardised or
- Integrated across geography and time scales

Can we help to break down some of the barriers to data access?

Thank you

Melanie.hutchinson@dsit.gov.uk