

NATIONAL
ACADEMIES

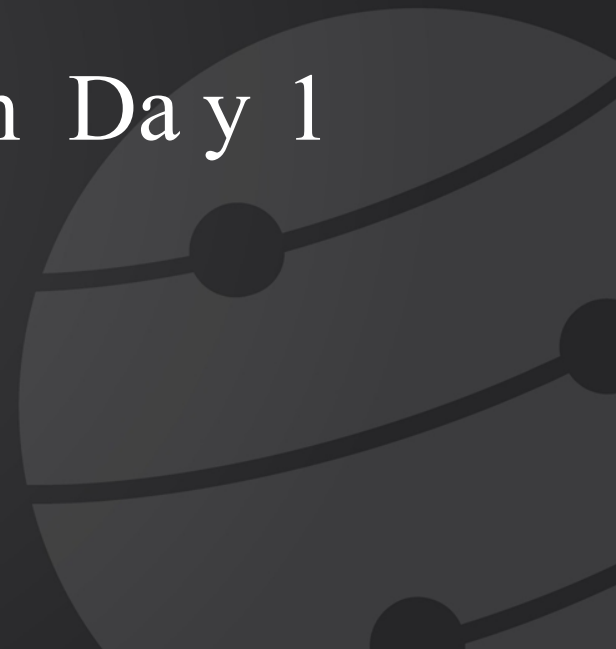
*Sciences
Engineering
Medicine*

A World Café on Building Resilience - Setting the Stage for Collaboration

December 3, 2025



Key Takeaways from Day 1



Key Takeaways from Day 1



Roles and Responsibilities

- Towards a 'global ecosystem of systems' – a multi-stakeholder approach with steady and stable public investment
- Private sector has a significant role while philanthropies capable of funding specific gaps
- End-users need to be engaged all the way in the process, not as an afterthought



Governance and Coordination

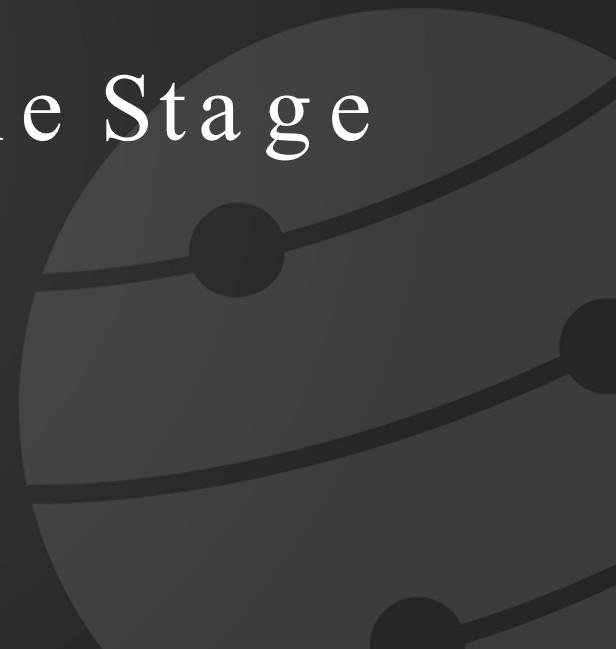
- Need global coordination on set of EO observables and criteria for defining priorities
- Equity, openness and provenance to be part of foundational principles of governance
- Skilled workforce needs to be sustained, not assumed – communicate the value of EO
- Multi-stakeholder governance is hard, but possible, commitment drives innovation



Technological Innovation, Barriers and Opportunities

- Co-design with the user, do not assume the value of EO – a culture shift is needed
- Lower barriers for users to use, analyse, manipulate and visualize EO by providing tools to make data usable, not just access
- OSS and open-data infrastructures is the backbone of EO, but this should not be assumed

World Café: Setting the Stage



The EO Ecosystem Has Changed

Then (2010)

- A handful of government agencies operating EO missions
- Long mission cycles and lifespan
- Data primarily used by expert community of scientists and researchers
- Limited use otherwise with a high barrier to entry

Now (2025)

- Several governments launching EO satellites (40+ national programs)
- Multiple commercial missions launching constellations at scale
- Rapid deployment, agile development and continuous iteration
- Diverse user base across businesses, non - profits, citizens for variety of uses

“More actors, more dependency, yet same governance as before”



Global EO Governance Looks Like Today



**Voluntary,
best - effort basis**



**Technical
(not political)**



**Primarily agency - to -
agency**



**Reactive, no binding
commitment**



West - dominated



Process - heavy

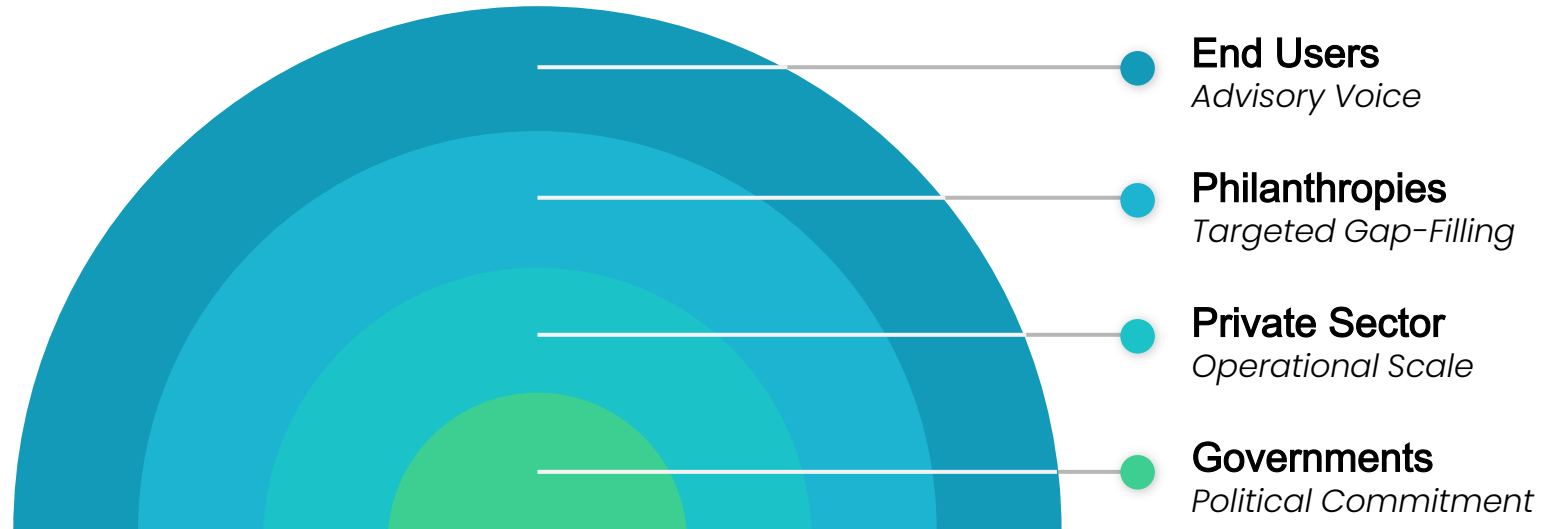
What Does a Resilient Globally Integrated EO System Need?

- Multiple stakeholders with structured roles – governments, commercial, philanthropic, end users
- Political commitment, not just voluntary technical coordination
- Shared understanding of global observation needs and priorities
- Co-existence with defense and intelligence systems
- Data integrity, trust and provenance
- Mechanisms for when things fail
- Benefits sharing and equity
- Design with users in mind



A Multi-Stakeholder Framework

Different actors, different roles, one globally integrated EO system



Recognizing Sectoral Differences

Credit: Hamed Alemohammad

Academic:

- *Priority:* Advancing knowledge, exploring new methods, workforce development.
- *Strengths:* Testbeds for innovation and piloting new technologies.

Private:

- *Priority:* Rapid, agile development and commercialization of solutions.
- *Strengths:* Moves quickly to address market needs, and scales technology.

Government:

- *Priority:* Ensuring transparency, trust, and public benefit.
- *Strengths:* Deliberate, rigorous approach to mission definition and oversight, and ensuring solutions serve the public good.

Nonprofit and Philanthropy:

- *Priority:* Addressing societal challenges, equity, and access.
- *Strengths:* Focus on communities, advocacy, and bridging gaps between sectors.

What Does a Resilient Globally Integrated EO System Need?

- A. What do the sectoral roles need to be?
- B. How will the governance be structured?
- C. What enablers (technological, legal, institutional, political, financial ... etc.) need to be in place?



Thank you!

