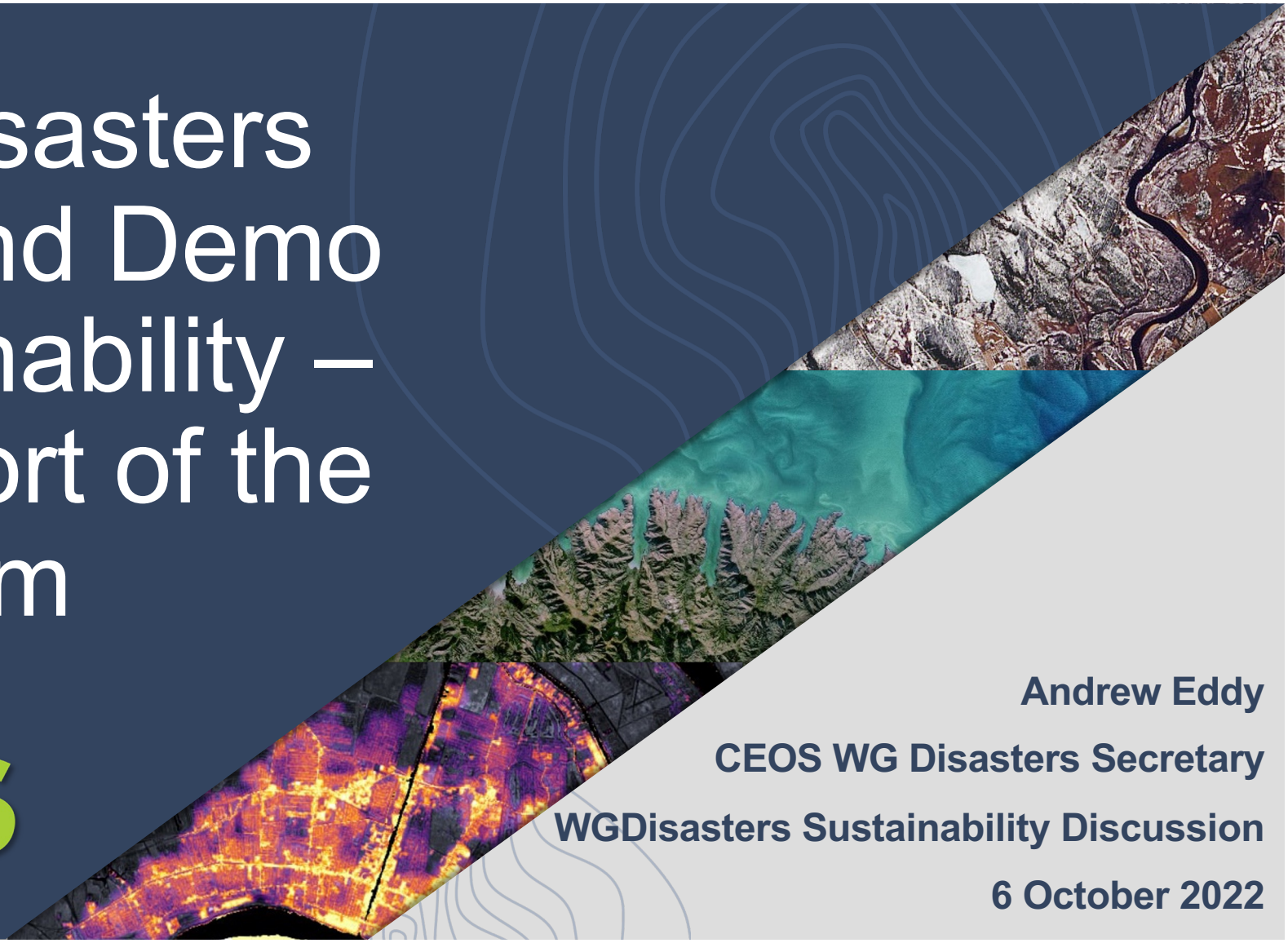
WG Disasters Pilot and Demo Sustainability – 1st report of the subteam



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CEOS WG Disasters Secretary

WGDisasters Sustainability Discussion

6 October 2022

CEOS
Committee on
Earth Observation Satellites

WGDisasters Priorities 2022-2023

"The path to sustainability - use cases or the operational uptake of satellite EO at the local scale": Focus on Operational Uptake of WG successes to increase resilience

- ***Demonstrators***:
  - Continue to demonstrate potential but begin ***building path to sustainable operations*** post demonstrator – stronger ties to international stakeholders but also local actors
  - Increase focus on ***capacity building*** in all demonstrator activities
- Strengthen ***ties to GEO WGs*** through increased visibility of WG Disasters activities within GEO
- Explore ***linkages to climate related activities***, especially through the impact of CC relating to extreme weather events and local impacts of climate (assessment, mitigation, resilience)
- Exploit ***new technology opportunities***, either through new missions, new activities or new data exploitation techniques

Background

- Sustainability subteam with all activity leads and several other agencies created spring 2022
- Two meetings to date, in June and in September
- Survey completed across demos and pilots, highlighting commonalities and differences (see table)
- Discussion among team to come to consensus on survey results

User Communities – a few representative examples of WG Disasters outreach

Pilot or Demo	User Community	Objective
Recovery Observatory Demo CC	International recovery stakeholder community (World Bank/GFDRR, UNDP, EU – but also regional DRM stakeholders (e.g. CEPREDENAC) or national governments (e.g. Haiti))	Create strong consensus around use of satellites for recovery (support to PDNAs and longer-term recovery framework planning and monitoring)
Volcano Demo	Volcano Observatories in developing world	Showcase benefit of EO for risk reduction and improved response; develop local capacity to use EO; facilitate EO access and uptake of EO for advanced volcano products
Landslide Demo CC	National and regional authorities International stakeholder community Insurance	Demonstrate value of using EO to understand risk and reduce risk to critical infrastructure; improve global landslide inventory used by national and local authorities
Wildfire Pilot CC	National Forestry agencies	Better coordinate use of satellites for fire monitoring; increase use of satellites, especially new missions or different missions than those currently used
Flood Pilot CC	National governments, civil protection agencies, watershed authorities	Showcase value of using a wide range of sensors (optical, SAR, LEO, GEO) for comprehensive flood monitoring in a few key basins

Sustainability Challenges – and approaches to address them

- ❖ Many solutions rely on marriage of free and open data with commercial data sets – **data cost** remains a hurdle for long-term solutions, especially for risk reduction (as opposed to response and -to a lesser extent, recovery)
- Demonstrators work with hotspots to showcase smaller scale projects that are more **affordable**, but in the long-term **scalable**
- ❖ **Awareness** of specific benefit tied to each thematic area or disaster phase still low in most communities, especially those financing risk reduction
- Demonstrators to place more emphasis on identifying benefits from **stakeholder viewpoint**
- ❖ Understanding of **differences in satellite data** solutions still low (e.g. free and open data vs commercial datasets)
- Focus on **integrated solutions** but bring **clear cost-benefit** to show how using commercial data sets augments overall benefit of satellite EO usage
- ❖ In many cases organizations with mandate to manage risk **do not have budgets** to invest in EO
- Identify cost savings; identify **cost-benefit wins**; identify **new stakeholders** with more financing and forge partnerships
- ❖ Continuous effort to be put on **Capacity Building** (not only technical, decision makers too) and **co-construction**
- Strengthen **links WG CapD / WG Disasters**, for a synergistic action ; Develop **"peer awareness"**

Initial conclusions presented to SIT

WG Disasters presentation for info and comments – no decision sought or required at this time.

- WG Disasters seeks to serve as a **catalyst for uptake of EO-based DRM solutions** by real actors with strong mandates for DRM, but ***WG Disasters does not have an operational role to play***, even in the Demonstrators... Potential role in "Observatories" ?
- Increasing interactions with **GEO** community (GEO DRR WG, EO Risk Toolkit) should encourage partnerships with a new range of stakeholders
- **Partnership** is the key to sustainability, and to achieve strong partnerships, increased **awareness** of the **value of EO** is necessary (cost-benefit of advanced EO-based solutions)

WG Disasters welcomes comments from SIT members on sustainability strategy
or specific recommendations for new partnerships relating to specific Demonstrators/Pilots.

Next steps

- Continued activity of the subgroup through 2023
- Report to be tabled November 2022 highlighting proposed next steps:
  - Further development of cost-benefit work in each pilot/demo
  - Increased awareness of benefits from stakeholder point of view – development of awareness building plan for specific communities
  - Outreach to new partners
  - Development of data quotas for public good projects and services that are not in commercial areas (e.g. Volcano virtual observatories, RO Global Program, etc)