Enabling Open Science in the Age of Big Data

This session will explore the perspectives of a **federal agency**, **industry**, and **community** consortium project and how they are **enabling Open Science** for interdisciplinary/transdisciplinary collaborations and scientific advances amongst a diverse community.

Purpose/Objectives
To learn about the evolving landscape of cloud computing and data services in the age of big data, and efforts being taken to:
- **Increase collaboration** opportunities, and accelerate scientific discoveries, for interdisciplinary/transdisciplinary science
- **Expand capacity** especially for non-R1, and historically underrepresented communities

Talk Titles
- Katie Baynes (NASA HQ) "Working towards Open Science in NASA's Earth Science Division"
- Tyler Erickson (Google Earth Engine) "Scaling climate data analysis in the cloud with Google Earth Engine"
- Chelle Gentemann (Farallon Institute) "Transforming to Open Science"

Enabling Open Science in the Age of Big Data Discussion

Plenary Discussion Questions

- Do the business models of commercial providers conflict with the move toward open data and open science?
- What are the mechanisms for funding cloud compute resources? UNOLS model? Institutional HPC model? Do we need a centralized cross-agency strategy for working with cloud providers?
- What is being done to promote interoperability between cloud platforms for interdisciplinary data access and inclusive science?
- What are the biggest barriers to users on cloud platforms from your perspectives? What can be done to minimize pain points?
- What information (if any) is needed from the Earth Science community to foster and advance open science from your perspectives?

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Panel Breakout Discussion Questions

- How can cloud data resources be best deployed to advance panel goals?

Expected Outcomes:

- Identify action item(s) on how each panel could leverage community/agency/commercial cloud data resources to advance panel goals.
- Provide specific recommendation(s).