

Progress on the NOAA Satellite Observing System Architecture Study and the Way-Ahead

NOAA

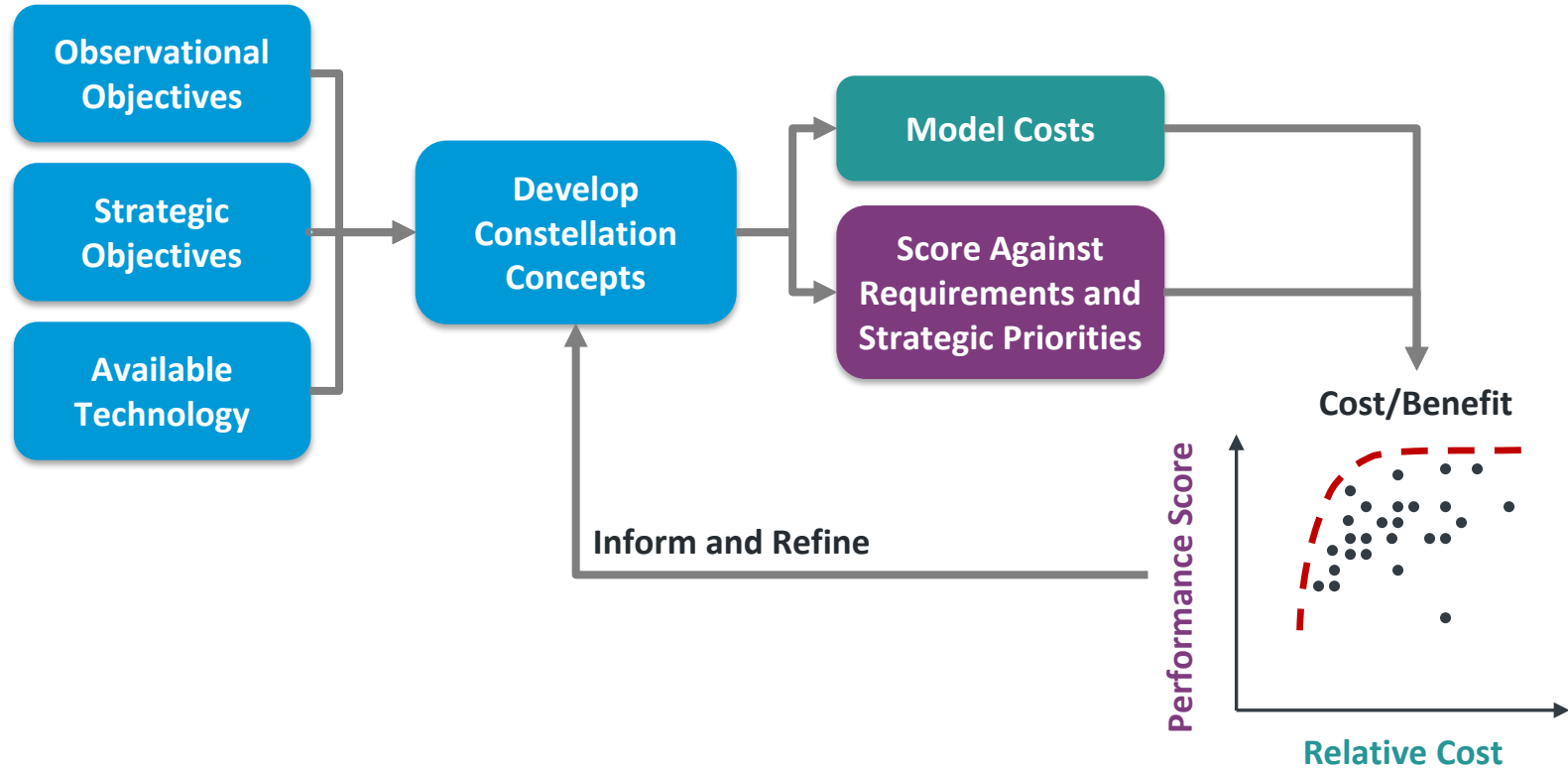


Nov. 5, 2019

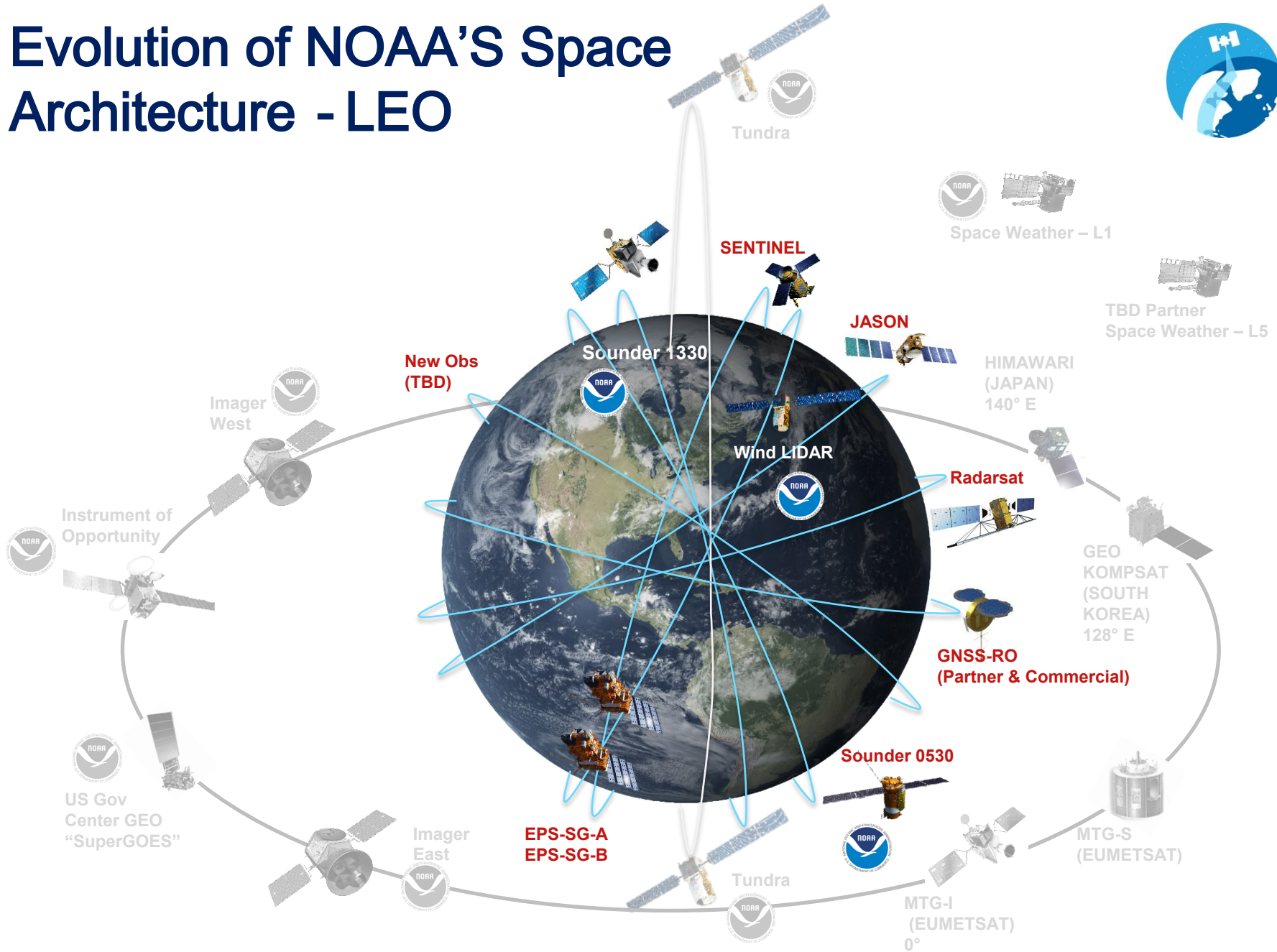
**Dr. Karen St. Germain, Deputy Assistant Administrator, Systems
National Environmental Satellite, Data, and Information Service**



Architecture-level Analysis Provides Choices and Opportunities

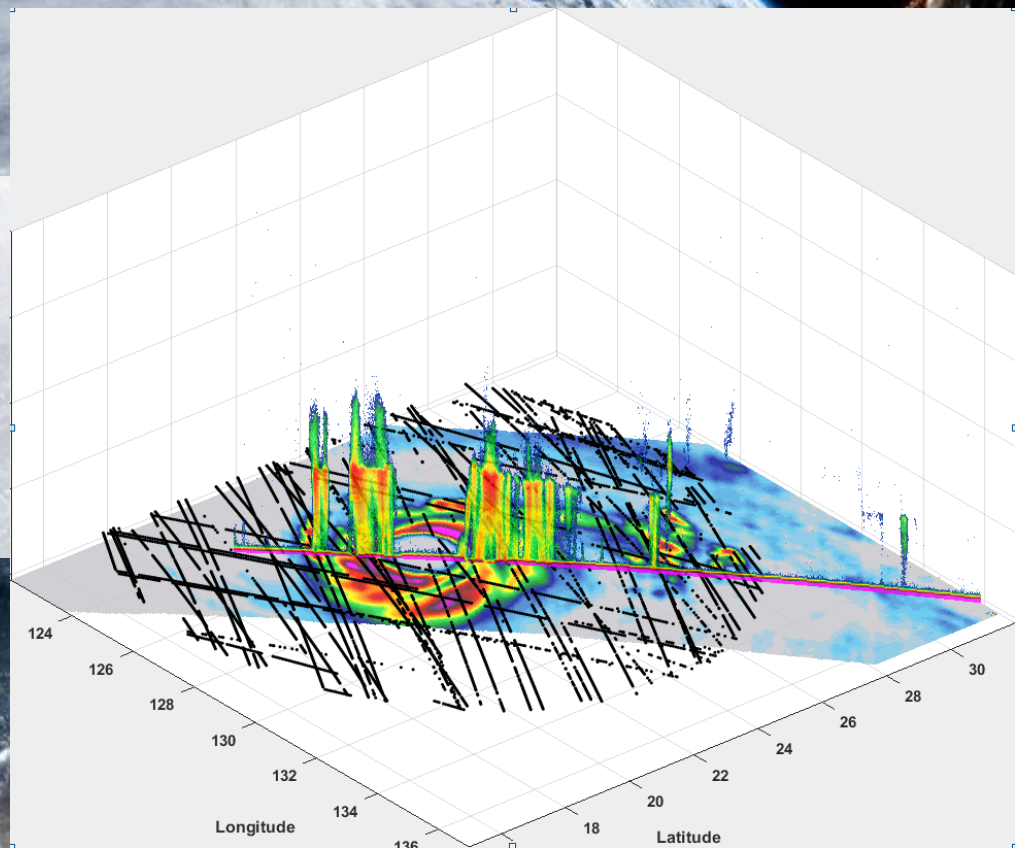


Evolution of NOAA'S Space Architecture - LEO





Sept. 28, 2018, TEMPEST-D and RainCube
overflow Typhoon Trami < 5 minutes apart
TEMPEST-D + RainCube + CYGNSS winds
Trami observed shortly after it had
weakened from Cat 5 to Cat 2





Innovation in SmallSats: An Example



Image courtesy of NASA JPL

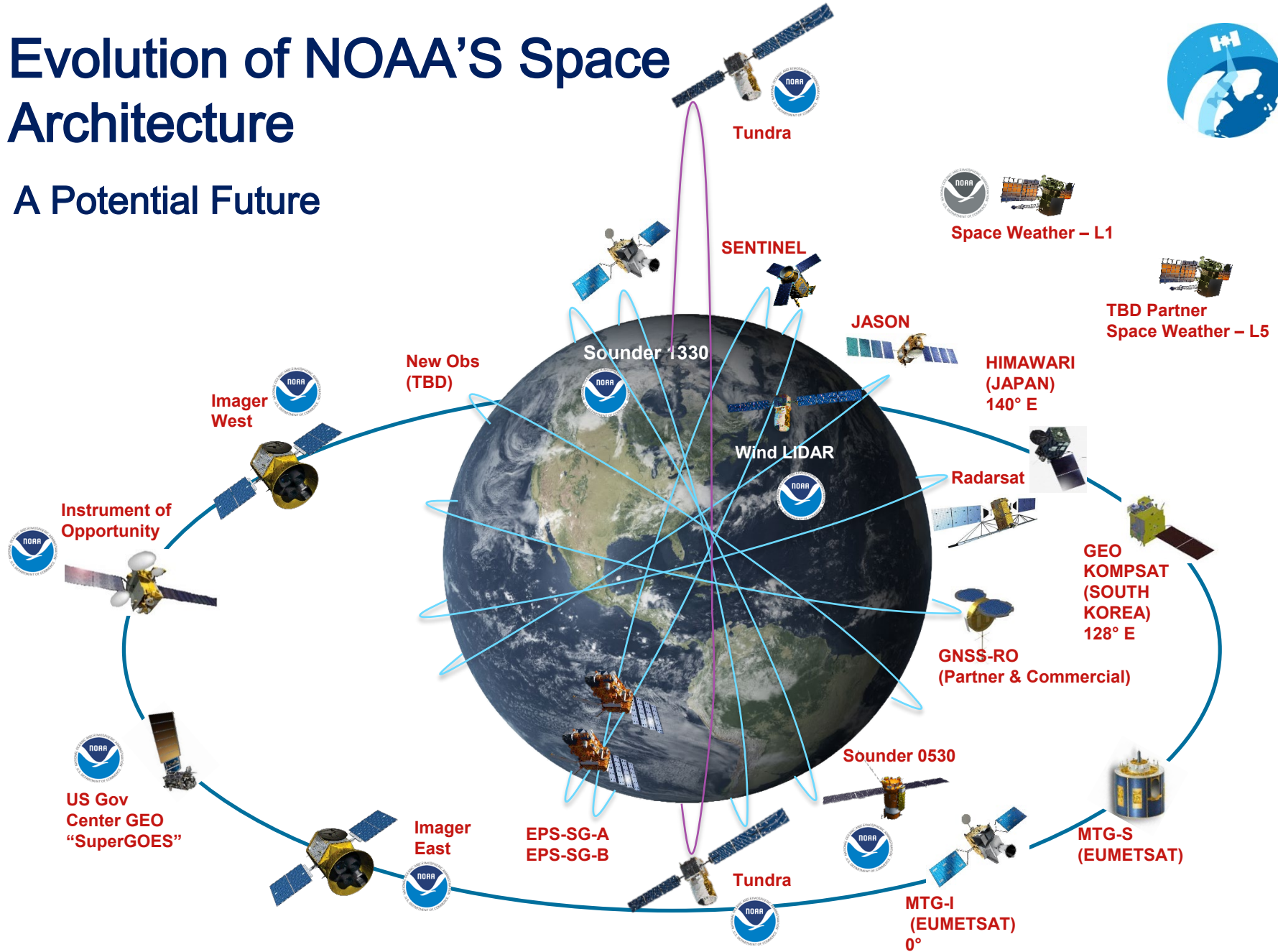
PARTNERS





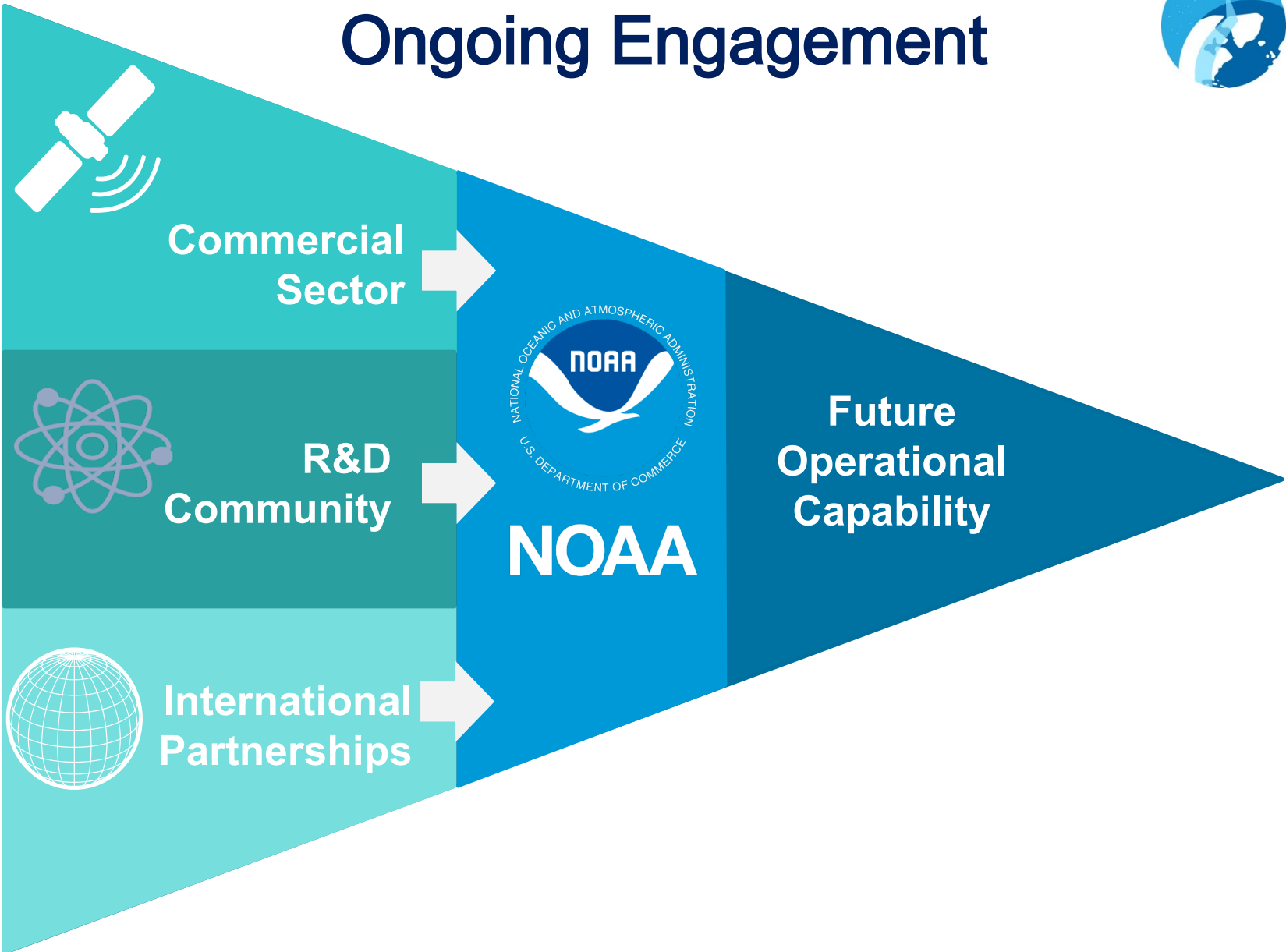
Evolution of NOAA'S Space Architecture

A Potential Future





Ongoing Engagement





What We're Doing Next

Changing *how* we do business -- more agile, more enterprising and more partnership engagement:

- Pilot projects and demos
- Joint Venture
- Industry and Science Studies (SounderSat BAA)
- Transition to common ground services

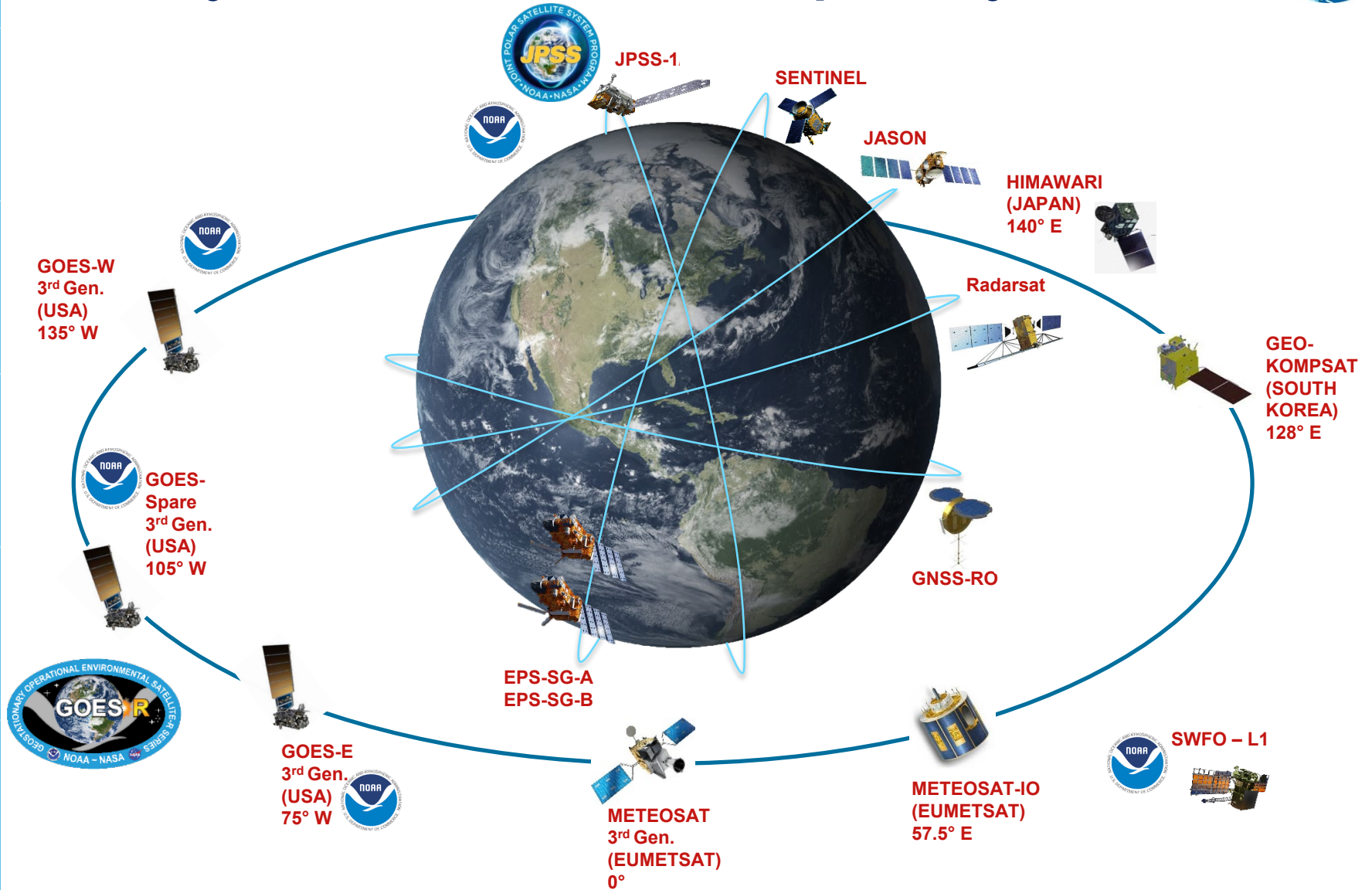


BACKUP SLIDES





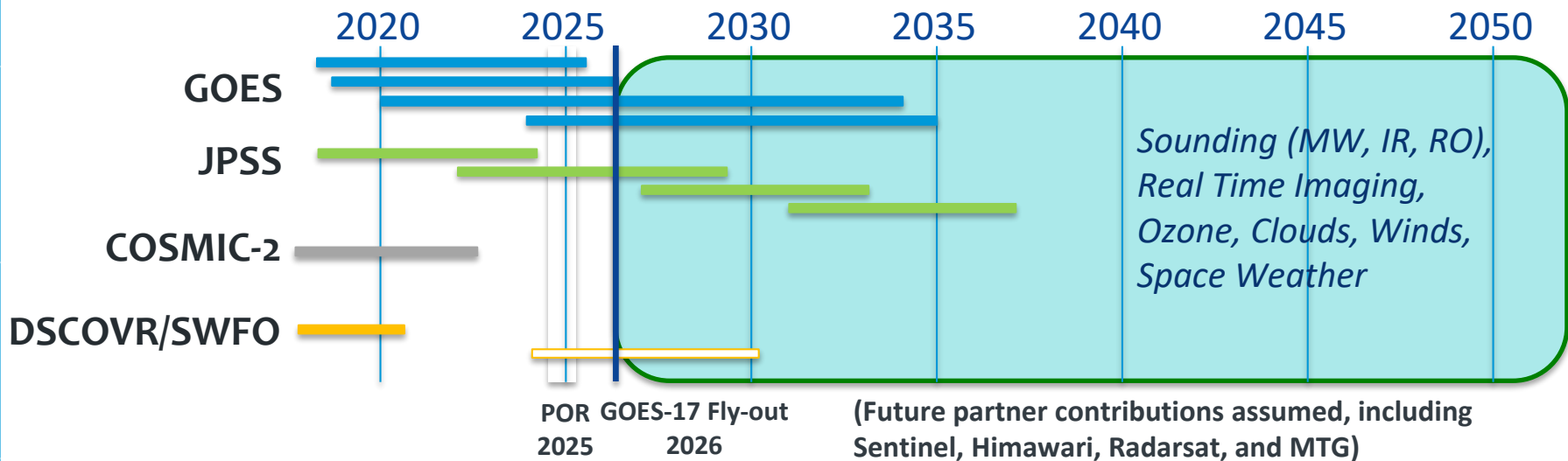
Today's Observational Capability





Planning for the Future

- Evolving to a more integrated, adaptable, and affordable portfolio while responding to changing technology, emerging partnerships and evolving requirements
- **Why start now?**
 - 10-15+ year development timeline for space assets
 - Current constellation phases out 2026-2035



The NOAA Satellite Observing Systems Architecture (NSOSA) study examined NOAA's future space segment architecture decisions