**Future Directions in Passive optical satellite remote sensing**

**Key ways forward:**

**1. Data integration:**

**Similar source** passive optical – Landsat and Sentinel to improve time series e.g., monitor magnitude of changes and attribute type of change; also differentiate ephemeral from permanent.

**Complementary source** passive optical – OCO2 and MODIS to improve plant productivity monitoring

**Different domains** – passive optical and lidar and/or radar – to improve structure/biomass change quantification

**Action**: TE should advocate now for Landsat follow-on.

**2. Image spectroscopy** to improve direct estimation of biophysical/ecological model inputs –

Move toward more direct physical measurements (away from qualitative)

New airborne imagers: suite described by Dar yesterday, e.g., AVIRIS-ng, PRISM, HyTES,

NEON could be a forum for testing (AVIRIS-ng and FW lidar)

Potential for new trace gas measurements (carbon compounds, ozone)

**3. New Missions:**

Use airborne data to vet possible technologies for spaceborne instrumentation

Could aid evaluation of cheaper missions.

Explore integrated instrument suites with airborne data.