



International Spaceborne Imaging Spectroscopy Technical Committee



*Karl Staenz & Andreas Mueller
Co-Chairs*

GRSS AdCom Meeting

Reykjavik, November 3 - 4 , 2012





ISIS ACTIVITIES (1)

- **ISIS TC Meeting held at IGARSS'12**
 - ~ 30 participants
 - Alex Held stepped down as co-chair => new co-chair selected: Andreas Mueller from DLR
 - Format with prior session on mission updates to be continued for IGARSS'13
 - Discussed future of ISIS => scope, role and direction should be kept as is
 - Discussed coordination of calibration sites among the different data providers => special session on calibration of hyperspectral sensors desired
 - Discussed potential hyperspectral data products => special session desired at IGARSS'13
 - Discussed data policy => data available free of charge or at cost recovery





ISIS ACTIVITIES (2)

- **IGARSS'12 - ISIS special session on 'Spaceborne Imaging Spectroscopy Missions: Updates and Global Datasets and Products'**
 - ~ 100 participants in first half session
 - ~ 80 participants in second half session
- **ISIS contribution to the December 2012 GRSS Newsletter**
- **ISIS submitted proposals for the following sessions to IGARSS'13:**
 - **Spaceborne Imaging Spectroscopy Missions – Current and Future Activities**
 - **Calibration of and Cross-Calibration with Orbiting Imaging Spectrometers**
- **Next TC meeting at IGARSS'13**





Mission UPDATES

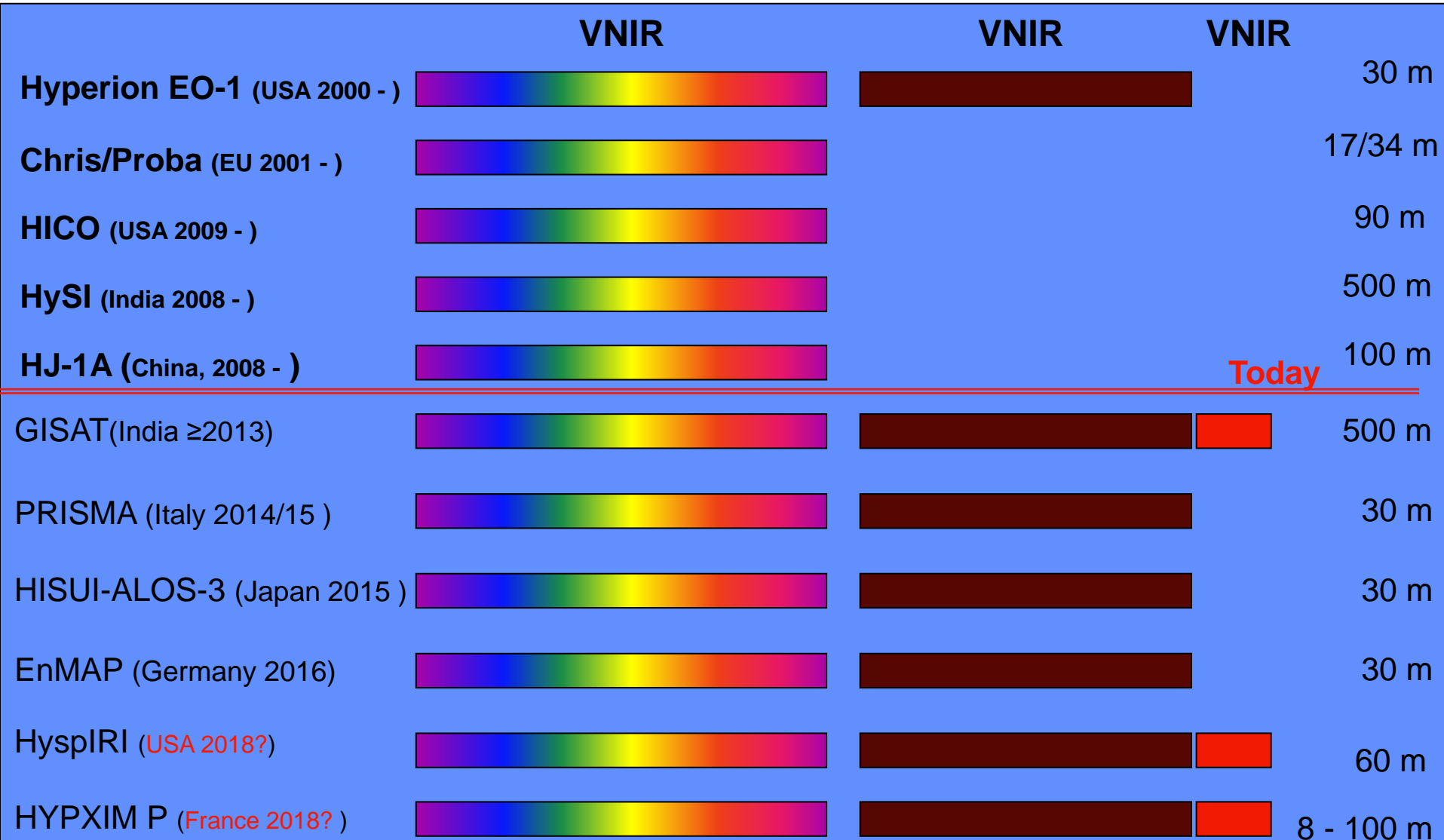
- **Currently 5 sensors in space (Hyperion, CHRIS, HICO, HyIS, and HJ-A10)**
- **Several new missions (ENMAP, PRISMA, HISUI, and GISAT) nearing launch in 2013-2016 timeframe**
- **Missions in planning stages (HyspIRI – NASA, HYPXIM-P – CNES, FLORIS/FLEX – ESA)**
- **New initiatives (SHALOM – ASI (Italy)/ISA (Israel), China?)**





Current and Planned Civilian Hyperspectral Satellite Missions

(Updated Oct. 2012)

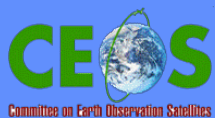
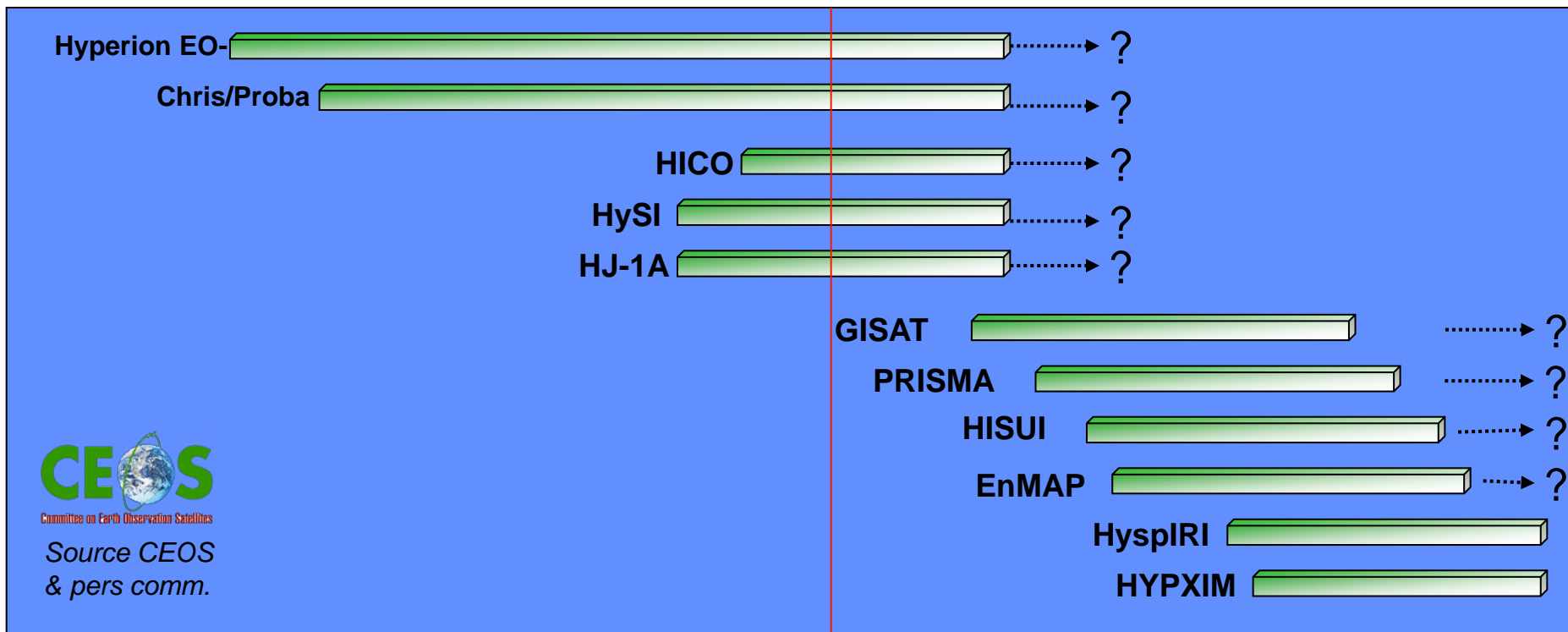




A "Virtual Constellation" of Spaceborne Imaging Spectrometers

(updated Oct. 2012)

Year 2000 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24



Source CEOS
& pers comm.

- Proceeded by unsuccessful proposals for e.g. ARIES, NEMO, Hydice, SPECTRA, etc.
- Supported by high Signal: Noise Airborne HSI systems
- Wide data access and data policies still are a key challenge
- Technical comparison of systems is difficult





Future Considerations

- **Workshop on development of ‘Hyperspectral Products’**
- **Develop public archive of HSI datasets and simulated satellite data for data product development and training purposes**
- **Workshop on data management, data policy, processing and distribution of spaceborne imaging spectroscopy missions**
- **IEEE GRSS Leadership of CEOS Cal/Val sub-program for hyperspectral satellites?**





Purpose of ISIS

The ISIS TC provides a forum for technical and programmatic discussion and consultation among national space agencies, research institutions and other spaceborne imaging spectrometer data providers.

<http://www.grss-ieee.org/Resources/TechCommittees>

