



# EOS VALIDATION Program

## ***DEFINITION:***

**Validation is the process of assessing by independent means the uncertainties of the data products derived from the system outputs.**

## ***GENERAL APPROACHES:***

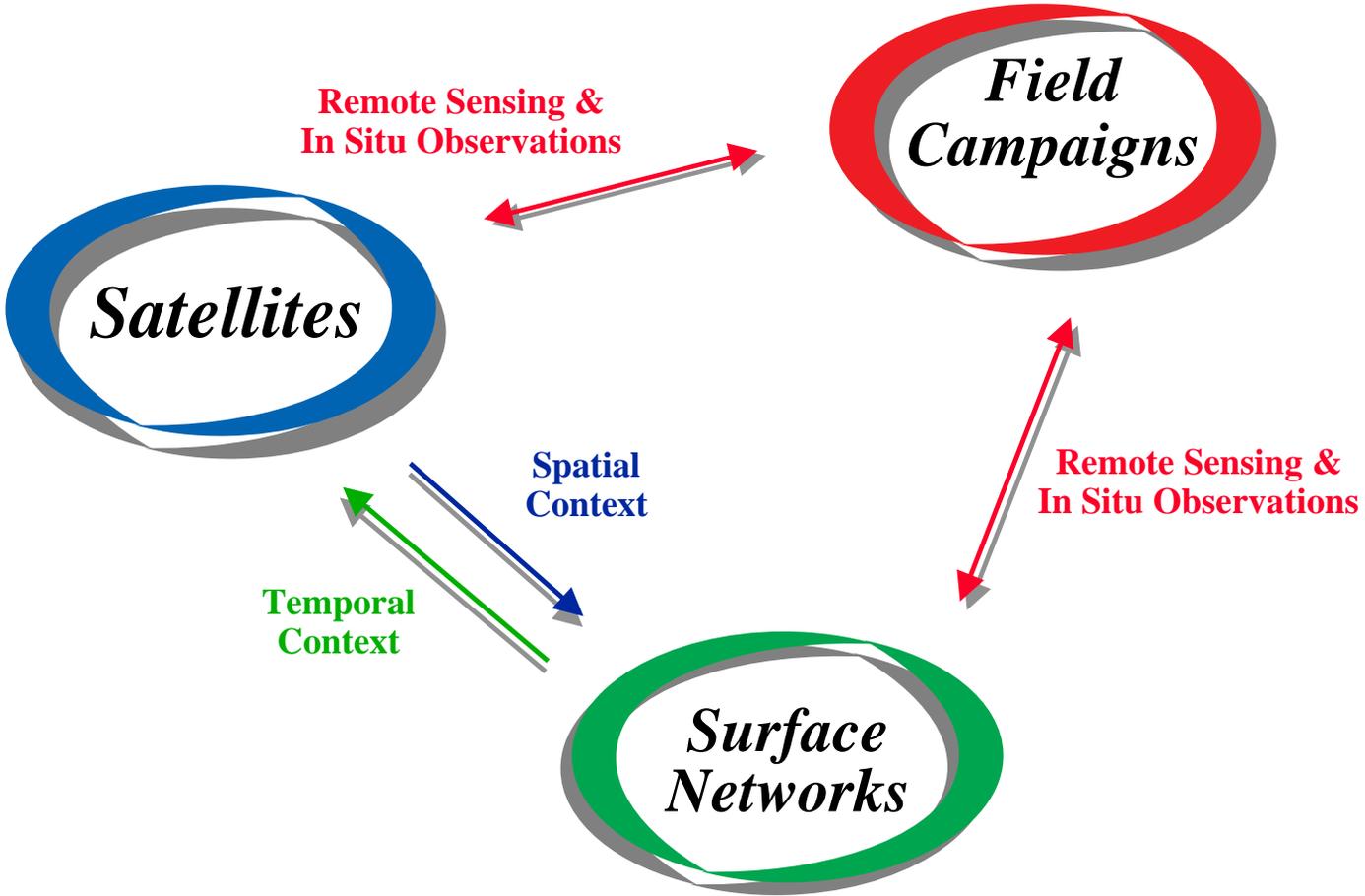
- **Direct Comparison with Independent Correlative Measurements**
  - Ground-based Networks
  - Comprehensive Test Sites
  - Field Campaigns
- **Comparisons with Independent Satellite Retrievals**
  - Products from Instruments on Same EOS platform
  - Products from Instruments on Different Platforms, EOS & non-EOS

## ***BASIC STAGES:***

- ***Pre-launch*** – emphasis on algorithm development and characterization of uncertainties from parameterizations and algorithmic implementation
- ***Post-launch*** – emphasis on algorithm refinement and data product assessments

# EOS VALIDATION Program

## *EOS Validation Strategy*





***RESPONSIBILITIES:* Project Science Office (PSO)**

- **Organize and Coordinate Project-wide Validation Program**
  - Define Validation Guidelines, Policies, and Milestones
  - Facilitate Effective Communications and Collaborations
  - Coordinate with other NASA and non-NASA Programs
  - Conduct Community Reviews of Validation Plans
  - Maintain EOS Validation Homepage and Program Documentation
  
- **Provides Direct and Supplemental Support for Team Validation Tasks**
  - Airborne Simulators (ASTER, MISR, MODIS, MOPITT)
  - Field Experiment Support (e.g., flight hour cost matching)
  - Correlative Measurements and Investigations via NRA
  - Database/Facility Support (e.g., AERONET, HITRAN)

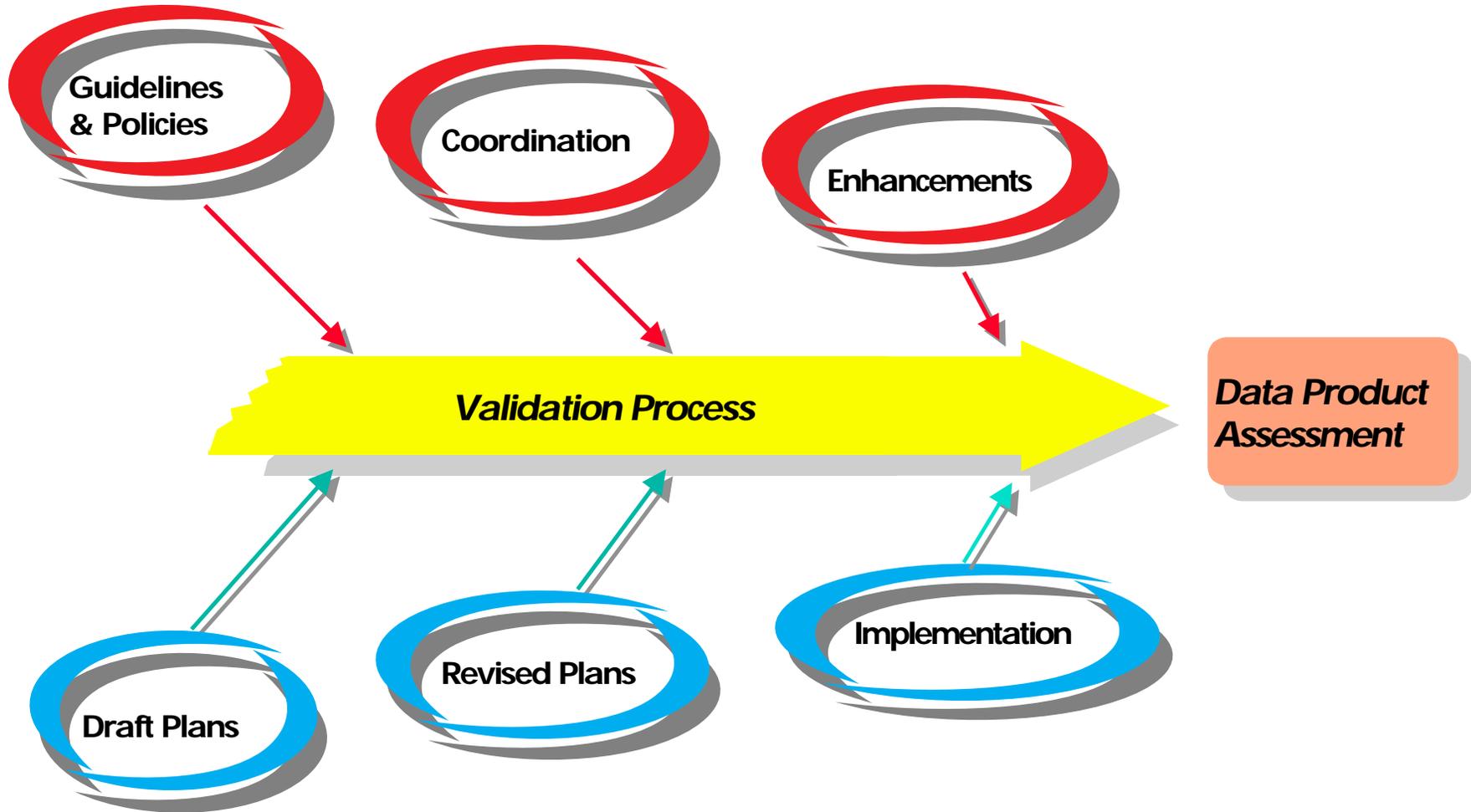


# EOS **VALIDATION** Program

## ***RESPONSIBILITIES:*** Instrument Science Teams

- **Develop Scientifically Sound and Comprehensive Data Product Validation Plans, Emphasizing Basic Remote Sensing Products (Levels 1-3)**
    - **Core Scientific and Funding Requirements from Team Resources**
    - **Define and Advocate for Supplemental Resources to Enhance EOS Validation**
  - **Implement Validation Tasks, Archive Data, and Disseminate Results**
- \* Interdisciplinary Science Teams**
- **Concentrate on Higher Order (Level 3 & 4) Data Products and Their Validation**

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# **EOS** **VALIDATION** Program

## ***SUMMARY***

- **Goal is Timely Assessment of Data Product Uncertainty**
- **PSO Organizes, Coordinates, and Provides Support**
- **Science Teams Develop Plans, Implement Tasks, and Publish Results, Emphasizing Level 1-3 Data products**
- **IDS Teams Contribute to Validation of Higher Order Science Data Products (Level 3 & 4)**
- **Comprehensive, Current Program Information at URL:**

**<http://eospsso.gsfc.nasa.gov/validation/valpage.html>**

**NOTEWORTHY  
INFORMATION**

**PLANS AND  
DOCUMENTS**

**CORRELATIVE  
MEASUREMENTS**

**AIRBORNE  
INFORMATION**