# MEPAG

## September 2010

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**Director, Mars Exploration Program**

# Agenda

- The Budget
  - FY11 President's Budget Status
  - MEP Budget
- Miscellaneous News
- NASA-ESA Partnership for Mars Exploration—where are we now?

# The Budget

- The FY11 President's Budget
  - NASA Appropriations Bill passed last night
    - ISS extended to at least 2020
    - Additional Shuttle launch in CY11
    - Continues Orion crew capsule and a new Space Launch System (70-100 tons to LEO)
    - Create technology development program
    - Pursue a commercial space flight capability
    - $100M/year for a robotic human precursor program
    - Science Program is basically stable
      - Slight increase for Planetary Science beginning in FY11
  - Continued emphasis on international cooperation and collaboration

- Mars Program budget pressures continue, but outlook is much better than it has been in years!
  - MSL in FY11/12
  - NLS-2 launch vehicle cost and performance
  - Earlier-than-usual milestones for 2016 and 2018 missions

# All the *Other* News Fit to Print

- Planetary Decadal Report
  - Report to reviewers—Sept/Oct
  - Report revisions—Nov-Jan ‘11
  - Report approved for release by NRC—Jan/Feb
  - Embargoed report to NASA—late-February ‘11
  - ***Public release—Brief report at LPSC, March 7, 2011***
  - Disseminate printed report—by August 31st

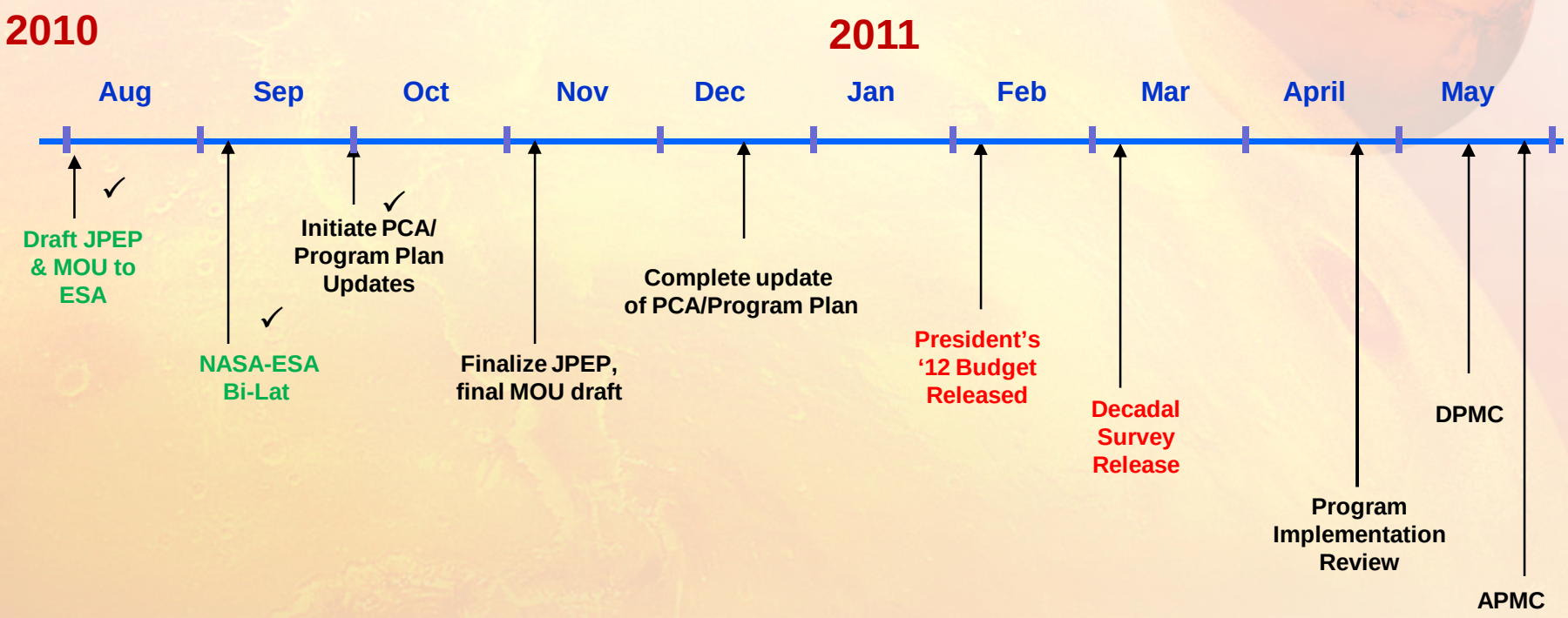
- 2013 MAVEN going to Confirmation *next week*
  - Highly successful PDR in July

- 2016 orbiter AO selections announced August ’10
  - Five instruments selected, including 1 European led
  - All instruments have significant international partnerships

# All the *Other* News Fit to Print

- Discovery AO
  - Step 1 selection announcements NLT April ’11
  - Selections for 9 month Step 1’s
- Key personnel changes in MEP
  - Mark Dahl retired—Dave Lavery picked up MSL as Program Executive
  - George Tahu joined MEP as 2018 mission Program Executive
  - Mary Voytek working with Michael Meyer on MSL
  - New Program Scientist in MEP should be aboard soon!
- Time for semi-annual MEP Program Status/Implementation Review
  - Required for all program’s continuation by NASA
  - Kick-off begun
  - Formal Review and briefings after Decadal Report release

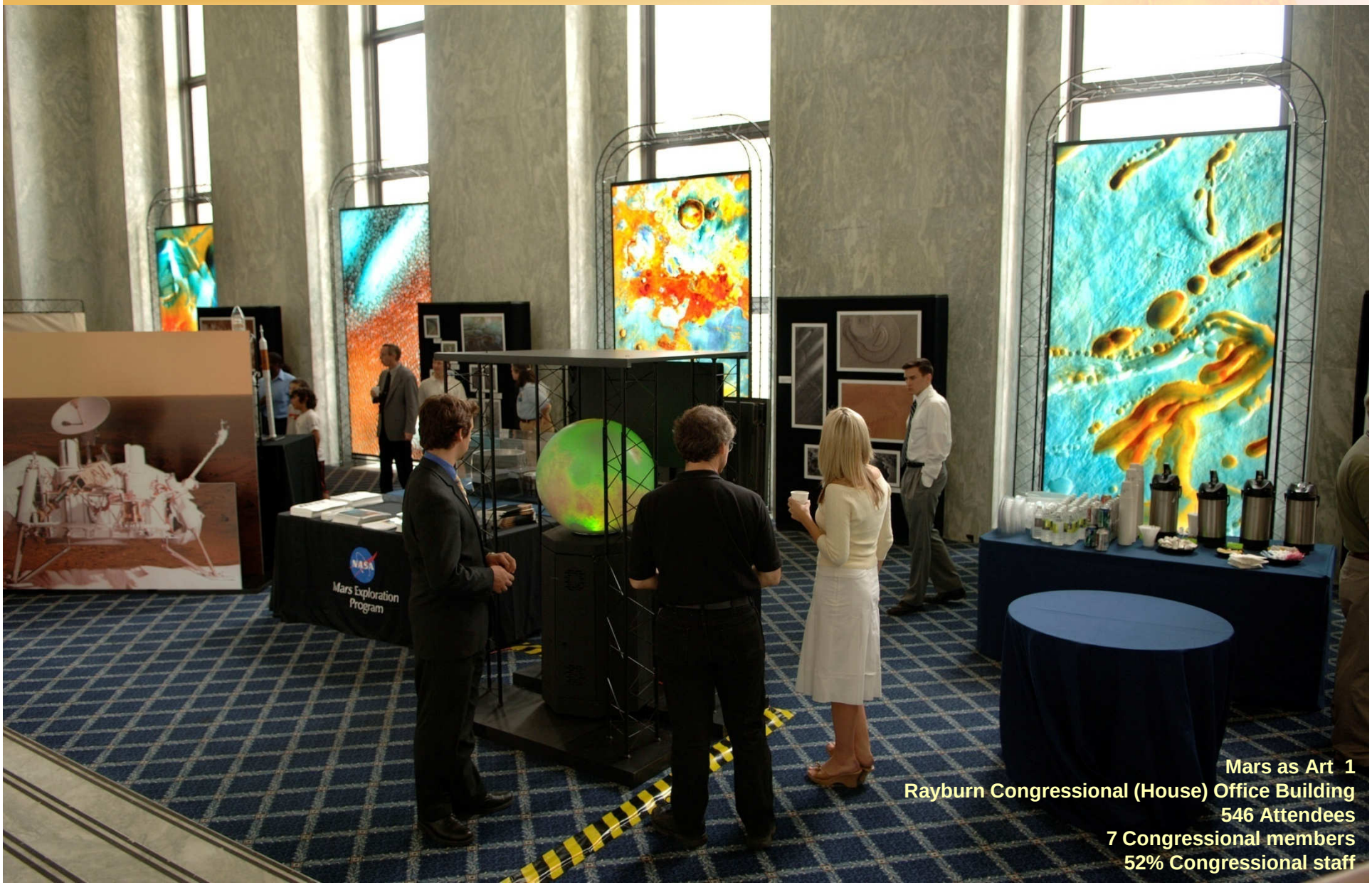
# Roadmap to PSR/PIR




JPEP = Joint Program Executive Plan
PCA = Program Commitment Authorization
DPMC = Directorate Program Management Council
APMC = Agency Program Management Council

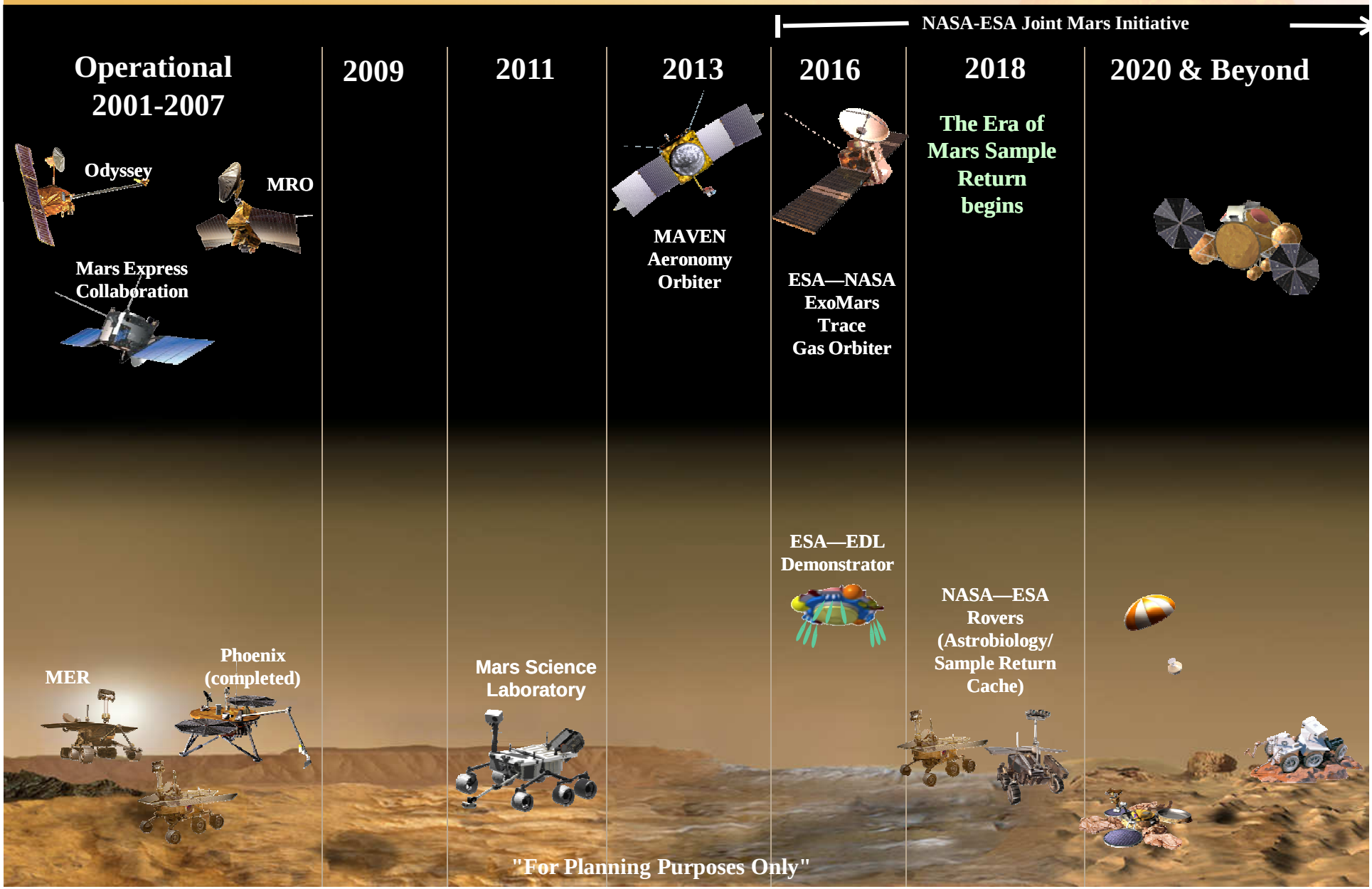
# Mars as Art-II

## Submissions by Oct 8th

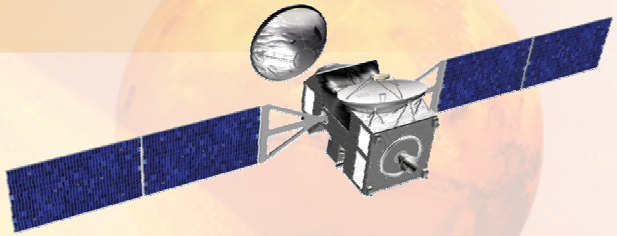



Mars as Art 1
Rayburn Congressional (House) Office Building
546 Attendees
7 Congressional members
52% Congressional staff

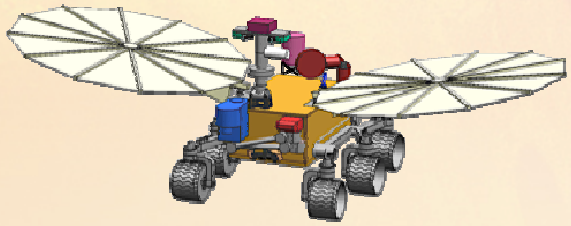
# Planned Joint NASA-ESA Mars Initiative Portfolio Overview



# NASA-ESA Joint Program Progress

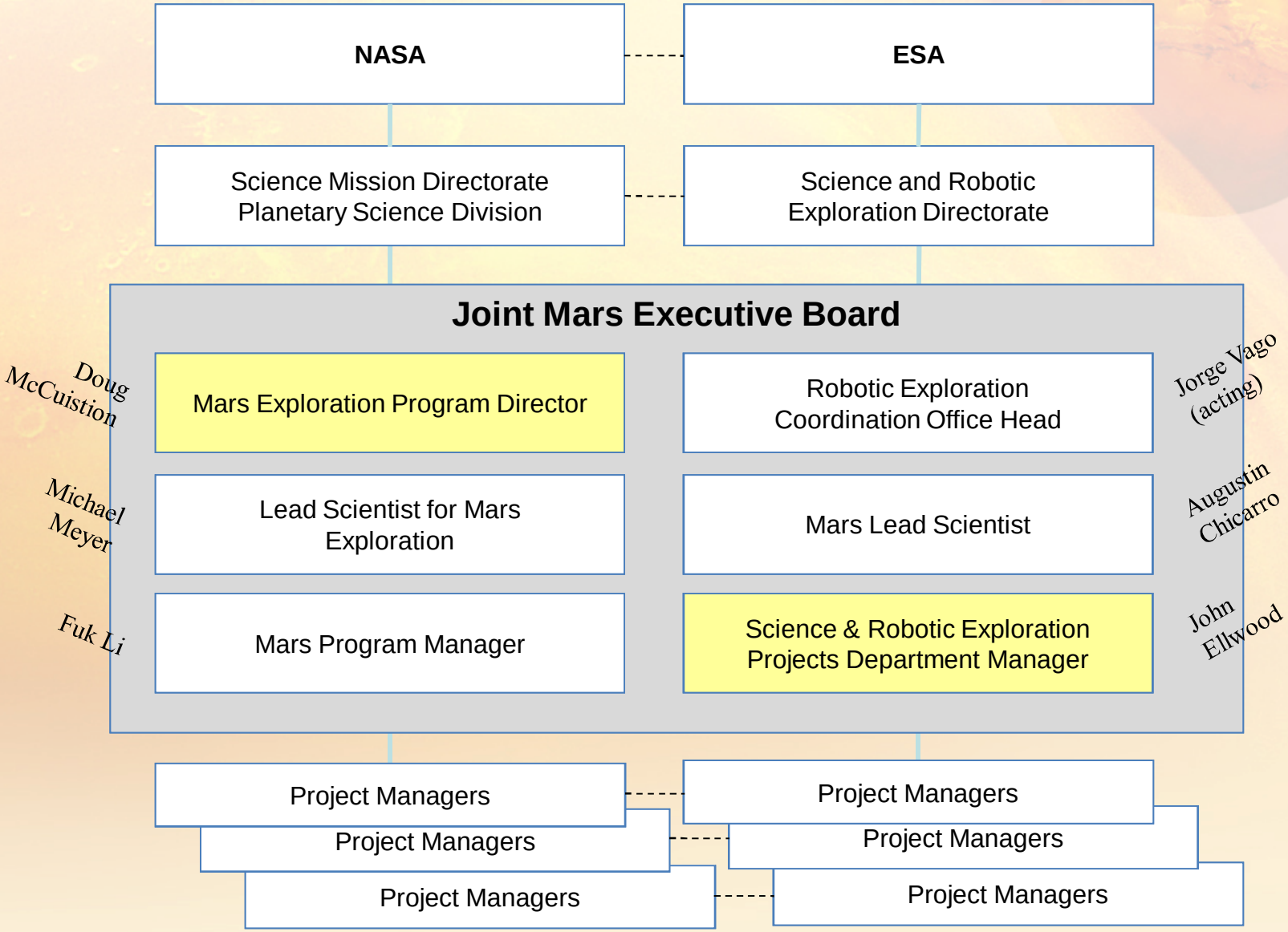


- Management structure in place
  - Joint Mars Executive Board—meets regularly
  - Joint Engineering Working Groups for future mission concepts
  - Bi-Lateral next week (Dr. Southwood and Dr. Weiler)—meets twice yearly
- 2016 mission orbiter instruments selected!
  - ESA's demo lander AO possible in early 2011—US will support science participation
  - Project office established in Mars Program Office at JPL
- Overall governance, documentation, review and approval processes, etc., maturing
  - Operating under an approved LOA
  - MOU nearly final
  - Joint Executive Program Plan (JPEP) in negotiation
  - The joint Program will be reviewed in PSR/PIR for NASA APMC approval in May '10

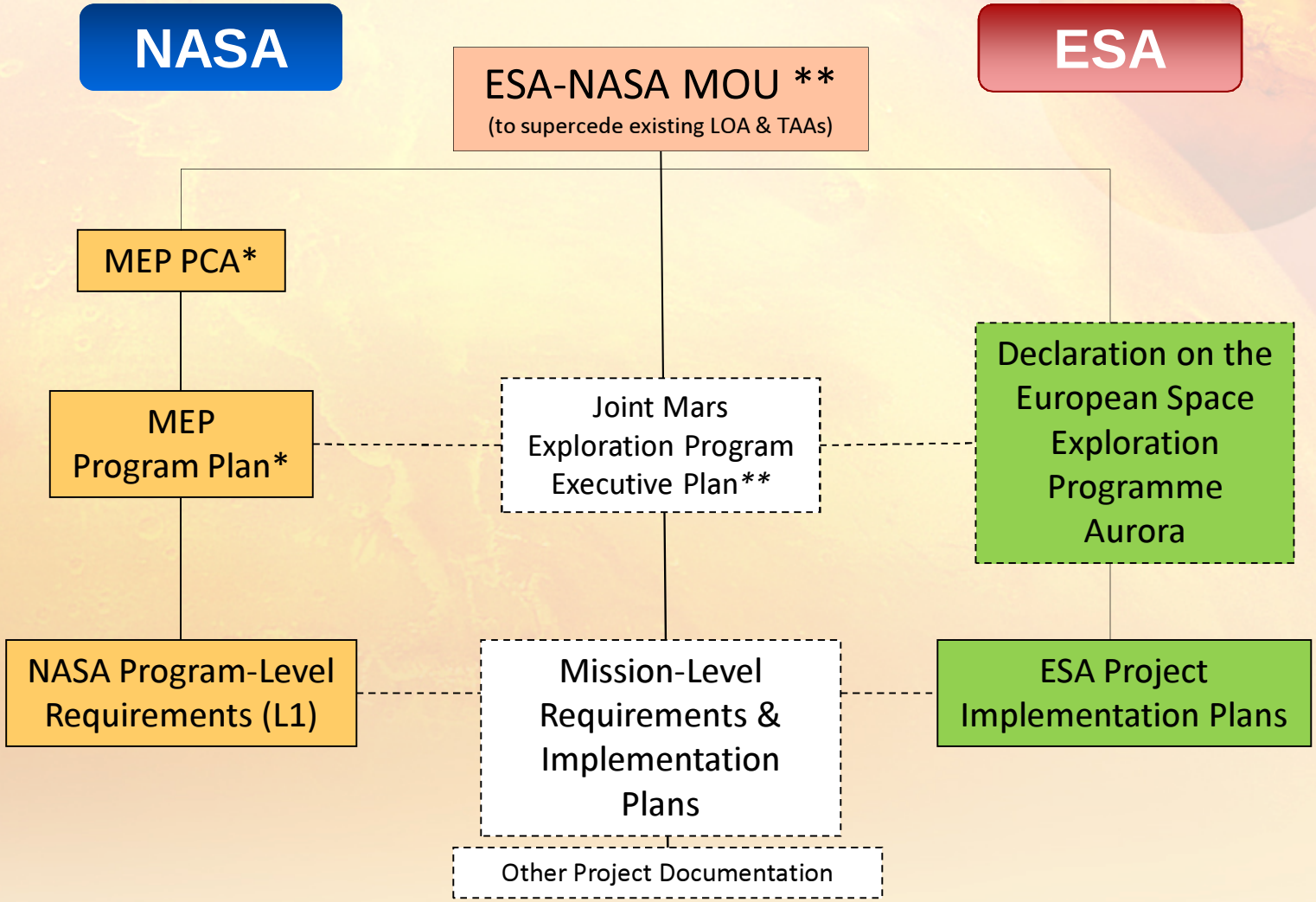


- MSR working group recently established

# Joint Mars Program
## Authority and Management Structure



# Joint Mars Program
## Governance Documentation




* Existing documents to be updated with new program directions and joint implementation mode

** Currently in the process of negotiating with ESA

# Joint Program Summary

- While the FY11 budget isn't approved yet, no radical changes are expected for MEP
  - Continued MSL budget threats do exist for 2011 launch
  - Launch vehicle costs are going up—and performance is going down
- Partnering with ESA enables the next phase of Mars scientific exploration
  - A strong and productive partnership is developing!
  - 2016 and 2018 mission objectives and roles are defined and activities proceeding rapidly
  - Lays the groundwork to bring a joint/international sample return mission to reality
- There are still challenges for the joint program
  - Maintaining partnership after first 2 missions through Mars Sample Return
  - Meshing different agency cultures
  - Completing 2016 early NASA milestones since ESA has a "head start"
  - Completing the MOU and JPEP is critical for stability
- Agency approval will come with Decadal Release and PSR/PIR