Reflections from the Discovery 2010 AO

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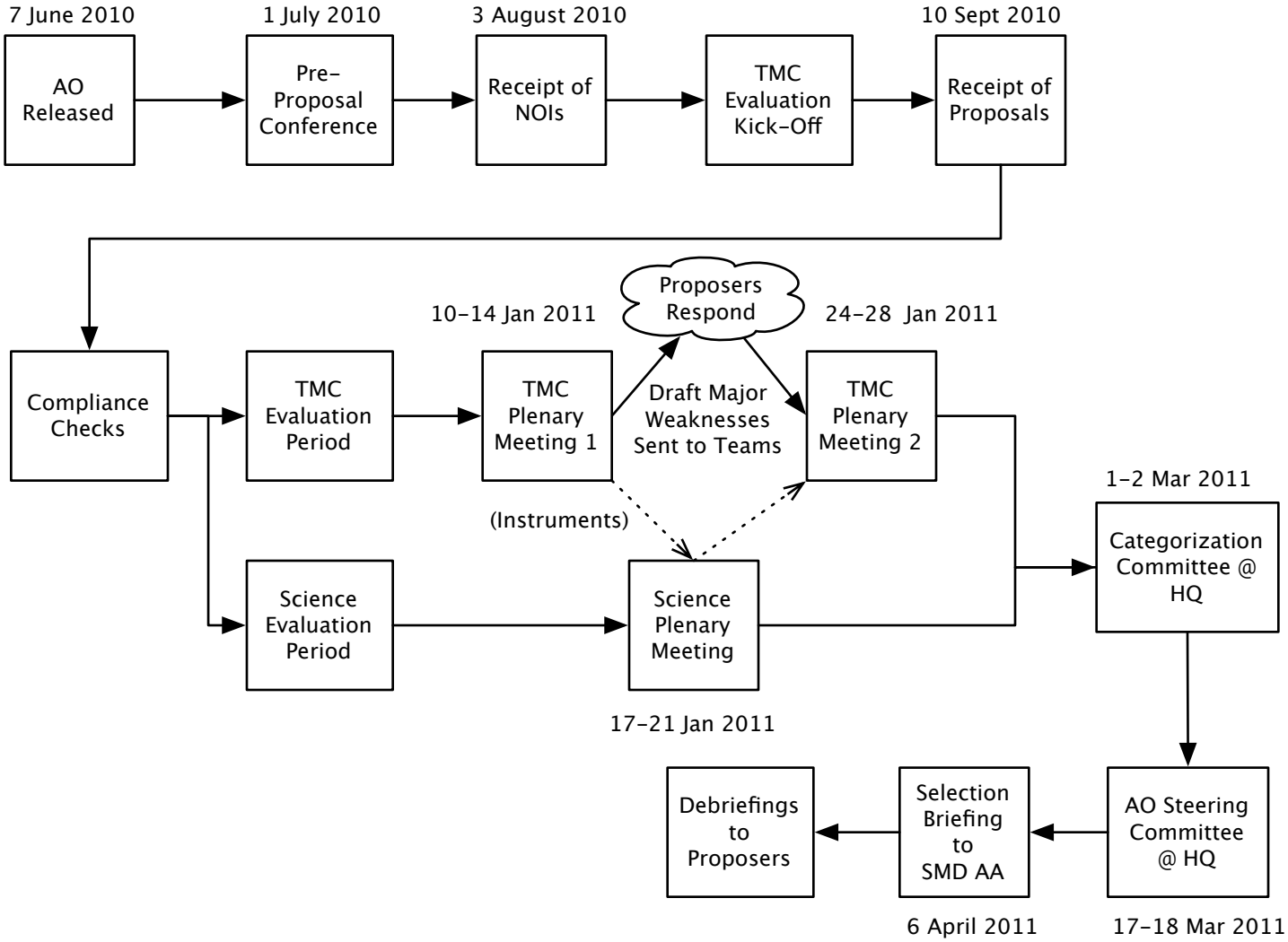
DISCLAIMER

Do to procurement sensitivity, I can say very little about details, especially about particular proposals.

I will talk about the process and some statistical features of the proposals.

Discovery Evaluation Process



Science Evaluation Facts

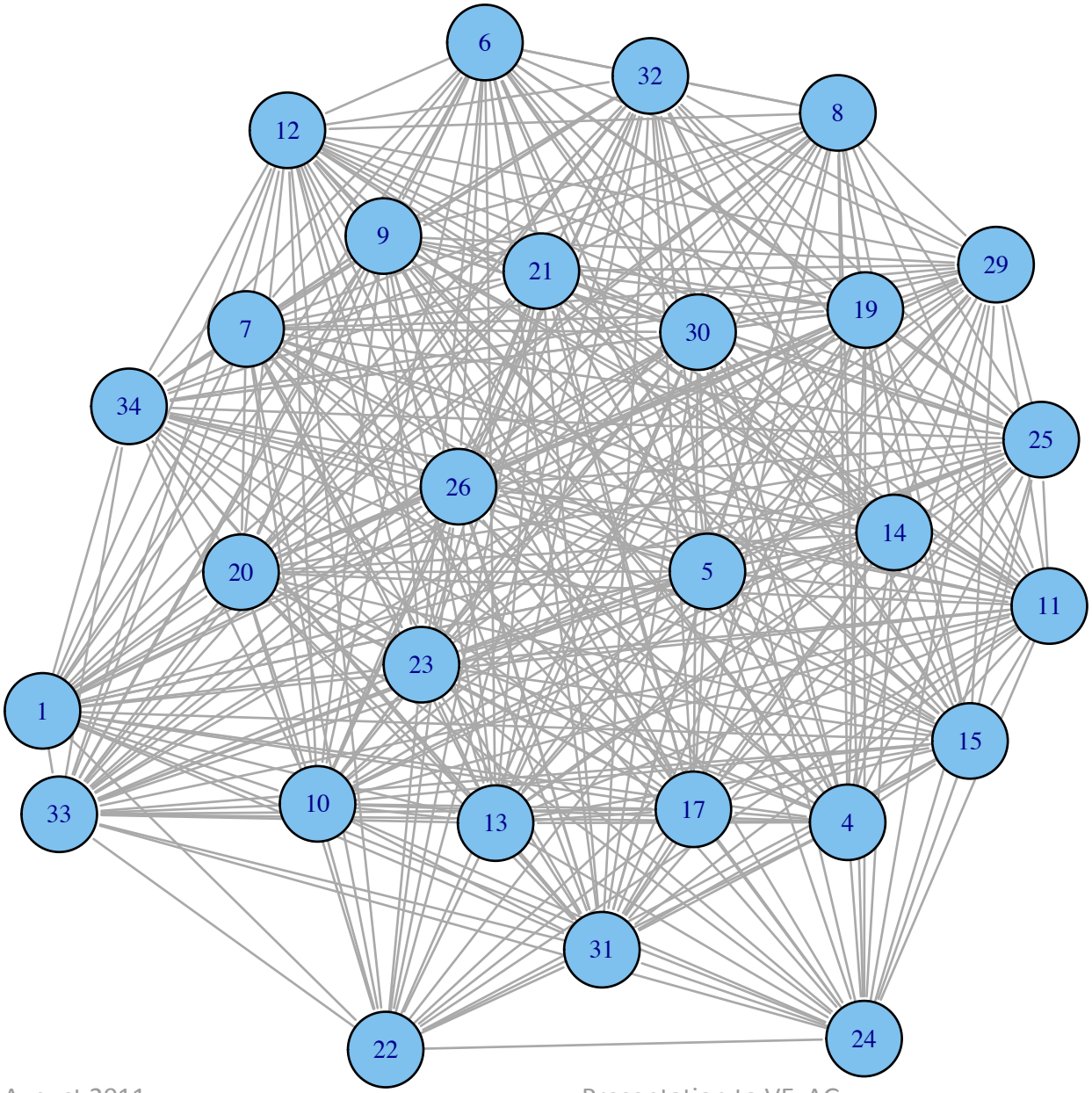
- The science evaluation was accomplished by six panels each co-chaired by a member of the community and an HQ Program Scientist: Venus, Moon, Mars, Outer Planet Satellites, Small Bodies (Composition) & Small Bodies (Observation/Physical Characterization).
  - Including mail-in reviewers, **65** scientists participated.
- Panelists were chosen based on their expertise and the goals of the investigations under review.
- Each proposal was read in detail by 4 members of the panel.
- The TMC panel provided an instrument technologist to each science panel who:
  - Did not take part in science discussions,
  - Did not participate in providing science ratings,
  - Did not reveal the TMC review findings or ratings,
  - Did not tell the TMC the findings or ratings of the Science Panel.

TMC Evaluation Facts

- The TMC review was accomplished with 3 panels.
  - A total of **85** engineers were involved in the process.
- TMC evaluators were a mixture of contractors, consultants and CSs who were experts in their respective fields.
  - All evaluators read all proposals in their panel.
  - Additionally, specialist reviewers were called upon when highly specific technical expertise, not otherwise represented on the panel, was needed.
- Evaluators and specialists participated in semi-weekly, secure, teleconferences to develop preliminary findings (strengths/weaknesses)
- When all proposals had been initially evaluated, the review met in plenary sessions to finalize findings and risk ratings.
- Ratings and findings were normalized during the plenary meetings to ensure that all proposals were evaluated fairly and held to the same standards.

Conflicts of Interest

- NASA takes conflicts of interest *very* seriously.
  - Legal (financial) conflicts of interest
  - "Community standards"
- All proposals were considered to be in "direct competition" with each other.
  - Therefore, if an institution provided a co-I to a proposal, no one from that institution could review any proposals (*not completely…*)



- Circles are proposals
- Lines connect proposals that share at least 1 co-I institution
- Mean degree is **26**.
- Median # co-Is is **20**.
- Institutions include all major planetary science centers in US and many abroad

So what to do?

- Dense web of COIs
- NASA & community need to devise a strategy to allow addition of Co-Is in Phase B separate from PSP.
  - How to ensure that teams don't unofficially form before then?
  - How to document this?
  - What will the lawyers think?

A Personal Observation

- From my very limited point-of-view, it does not seem like the Venus surface morphology community has coalesced around a commonly agreed-upon "next step."
- Mars visible light imaging went from >90% coverage at 100m resolution (Viking) to much lower coverage at <3m resolution (MGS MOC-NA).
- Magellan mapped ~98% of Venus at ~150m resolution.
- **What is the appropriate next step?**

VExAG Documents

- VExAG documents ("Pathways", SDTD Report, Decadal Survey white papers) need to be better socialized in the community – they need to be something that most Venus scientists are aware of and respect (if not agree with).
- Updated "Pathways" needs a finer-grained STM. Draft "Goals" document is a great start but should go to the level of "Measurements".

QUESTIONS?