



# NASA ESMD Commercial Partnerships

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# Agenda

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- Commercial Partnership (CP) Goals, Purpose
- ESMD CP Goals
- ESMD CP Strategy
- ESMD CP Council
- CP Solicitation, Selection Process
- CP Overview
- CP 2-Year Plan
- Summary

# Partnership Goals, Purposes

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- Various Market Goals
  - For Private Space And/Or Terrestrial Markets.
  - For Private Terrestrial Markets.
  - For Government Space Markets.
- Commercial Partnership Purpose
  - Capability Demonstration
  - Technology Development
  - Provide A Capability In Return For Visibility
  - Other Reasons That NASA Finds Beneficial

# ESMD CP Goals

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- Appropriate Commercial Partnerships Welcome In Exploration Architecture
  - Agreements To Meet NASA Mission Needs
  - Proactively Enabling Space Market Development
- CPs Are Present In Lunar Surface Exploration
  - Interesting ideas include: lunar data buys, lunar payload delivery, lunar communications and navigation services, HDTV, fuel depots, lunar mobility, etc.

# ESMD CP Strategy

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- Create Conditions To Enable Commercial Partners In Lunar Surface Exploration
- Solicit Information From Private Sector To Identify Potential Commercial Partnerships
  - Solicitation Of Commercial Information (SOICI)
- Establish ESMD Commercial Partnership Council
- Focus on CPs Requiring No \$
  - SAAs: Unfunded, Non-Reimbursable, Reimbursable
  - Zero-Cost Contracts

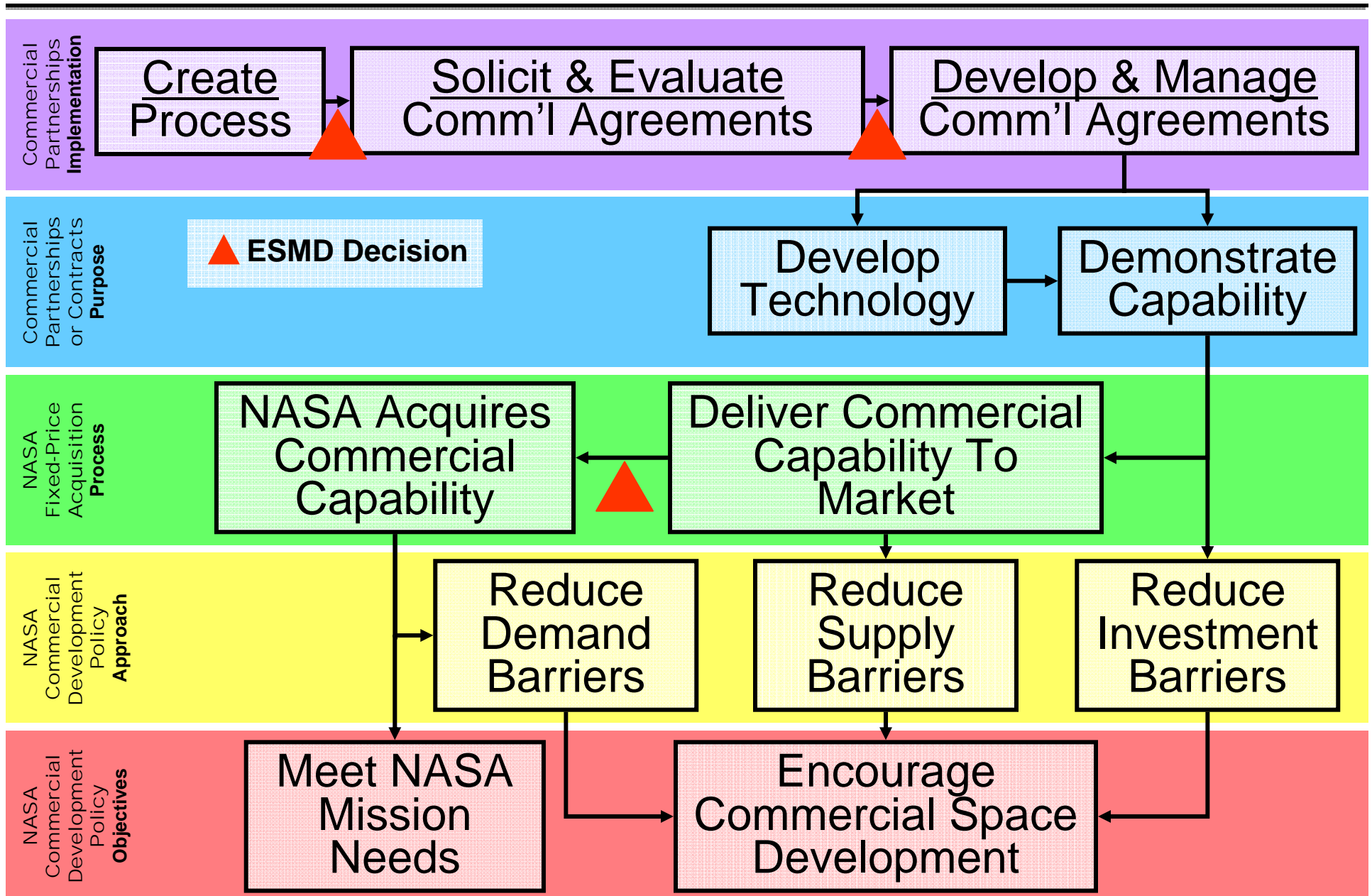
# ESMD CP Council

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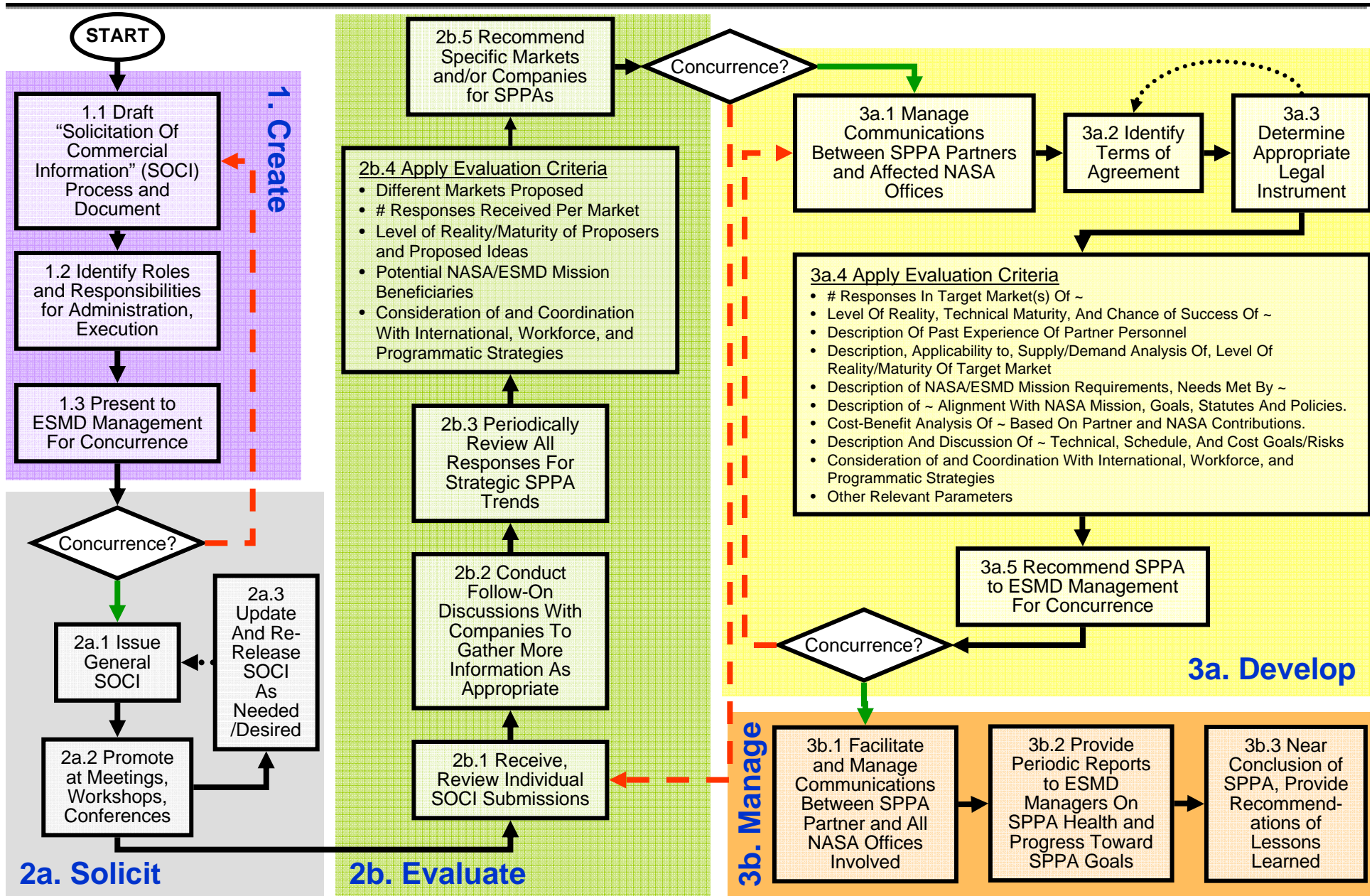


- Chaired By HQ ESMD DIO
- Membership
  - Partnership Leads At The Centers
  - IPP, Center Commercial Partner Reps
- Charter
  - Review Of Commercial Partnership Ideas
  - Formulate Recommendations
  - Pre-board For ESMD CP Decisions
  - Assigns NASA Program Office Leader For Particular Commercial Partnership
  - Ensures Coordination Across The Agency
  - Oversight Of ESMD CP Activities

# CP Overview



# Solicitation, Selection Process





# TOOL BOX: Investment Strategies for CP



- NASA Industry Commercial Investment Collaboration Path

- **IRAD model:** An investment by industry with partial recoupment from USG: Anticipating an acquisition.
  - *Target ~ \$10M/IRAD Investment*
  - *Least investment by both NASA & Industry: Minimum Risk to both*
- **Centennial Challenge Prize Model:** Prize Offered by NASA for industry achievement of NASA established goals. No payment unless goals achieved:
  - *Target ~ \$25M/Prize*
  - *NASA owns “What and Interoperability ” not “How”*
  - *Some investment by both: Some Risk by both.*
- **Commercial Orbital Transportation System (COTS) Model:** Shared Development cost paid by NASA to demonstrate a capability on agreed milestones and as required by NASA:
  - *Target ~\$50M/COTS Investment*
  - *Shared Fixed Costs. NASA owns “What and Interoperability” not how.*
  - *Substantial investment by Both NASA and firms Shared Risk*
- **New Commercial Use Model:** NASA procures using Space Act Agreements from entrepreneurial service providers, then uses IDIQ to commercialize operations
  - *Target ~ \$150M/Procurement*
  - *NASA owns What, Industry owns How: Shared Risk*
- **New Procurement Model:** DDT&E paid by NASA. Fixed Cost contracts with entrepreneurial suppliers for services and data, not hardware. NASA Owns “What and Interoperability” not “How”.
  - *Target ~\$200M/Procurement*
  - *NASA pays full cost including DDT&E and Operations;*
  - *NASA owns “What” : NASA and Supplier share Risk*

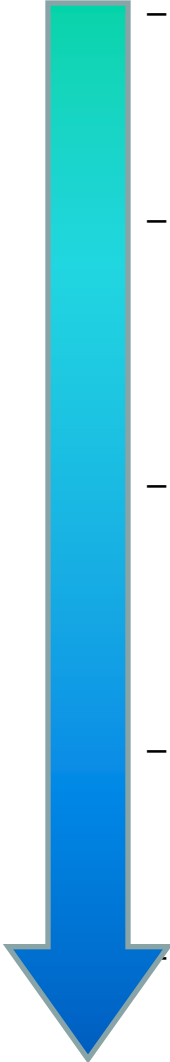
For Development

For Development

For Demonstrations

For Space Act Agreements

For Procurements



# CP Strategy Summary

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- Agreements Between NASA and Commercial Partners Vary by Goals, Purpose
- Established Commercial Partnership Goals
- Provide A Mechanism To Receive And Review Unsolicited Partnership Proposals
- Actively Look For New Opportunities
- Mechanism To Review Internally Generated Ideas