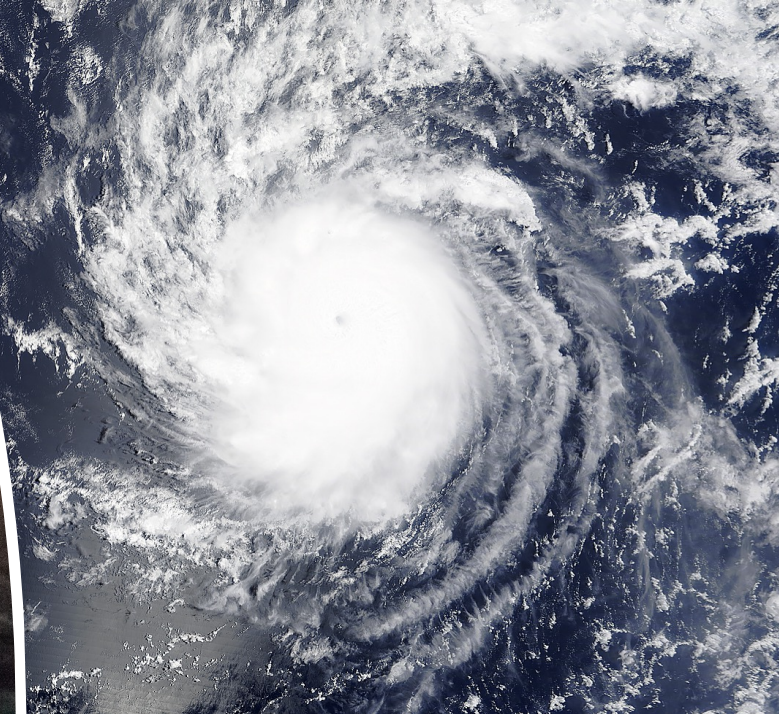
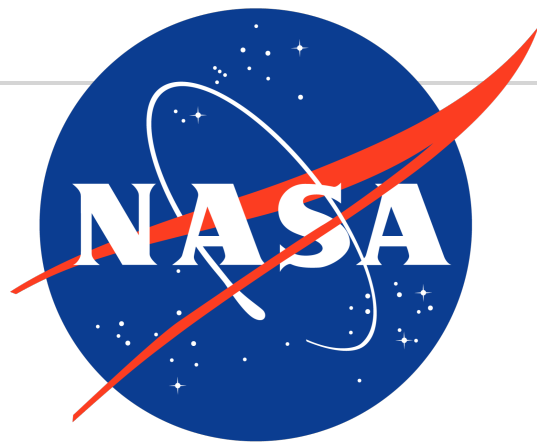


# NASA *LEADS*

*Leadership for  
Excellence,  
Advancement, and  
Diversity  
Strategy*

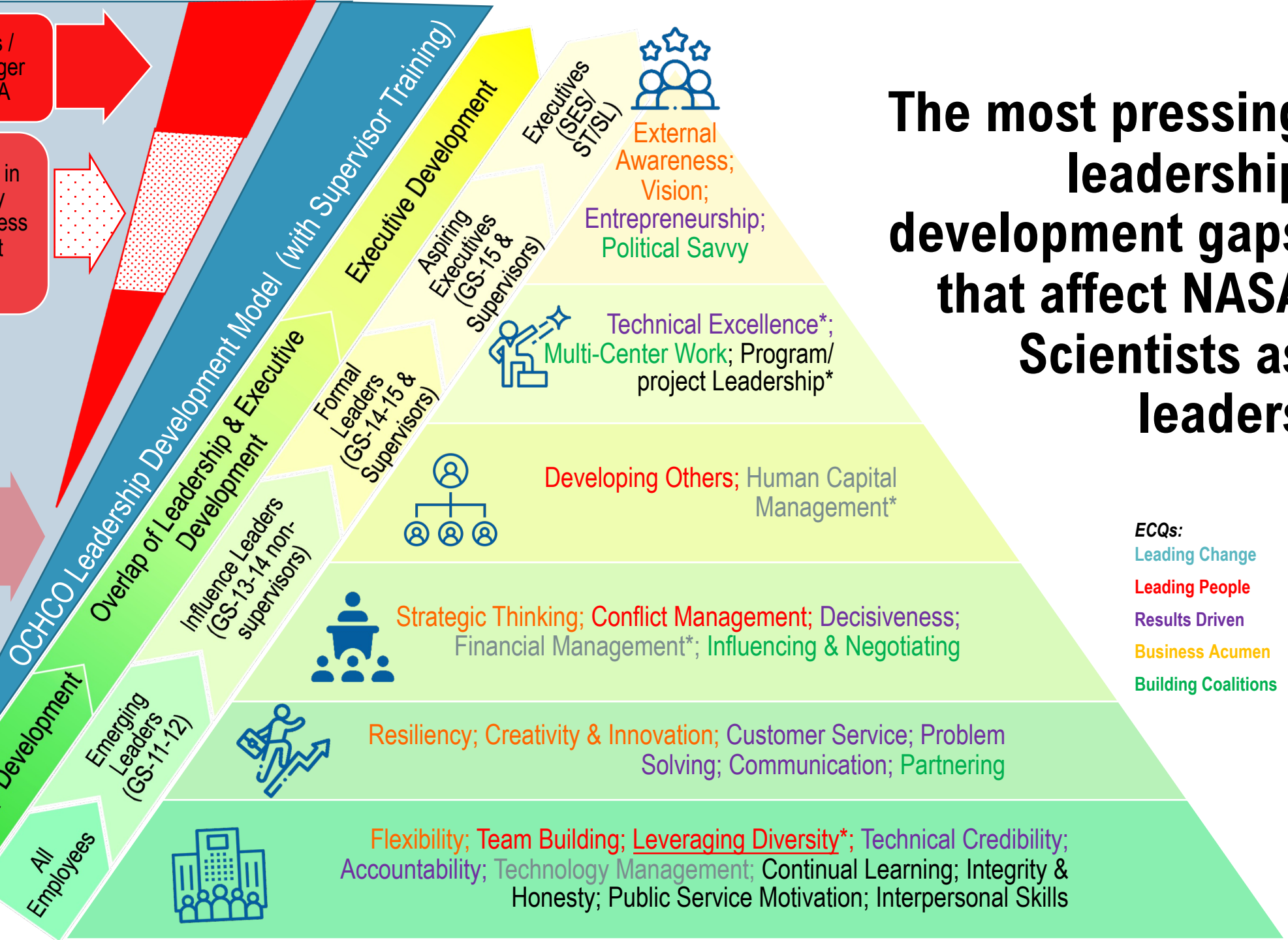




Gap 1: Courses / programs no longer offered at NASA

Gap 2: Scientists in non-supervisory positions lack access to management training

Gap 3: Most scientists enter NASA employment at grade GS-13+ and lack access to emerging leadership training



# The most pressing leadership development gaps that affect NASA Scientists as leaders

- ECQs:
- Leading Change
  - Leading People
  - Results Driven
  - Business Acumen
  - Building Coalitions

# THEME 1: Leading for Scientific Innovation and Breakthroughs

---

- Introducing innovation concepts and practices to science processes to enable breakthroughs that are relevant to NASA's goals.
- To accomplish this goal:
  - Awareness of Field-Specific and Interdisciplinary State of the Art
  - Excellent Positioning in the Science Competitive Process
  - Culture of Scientific Innovation

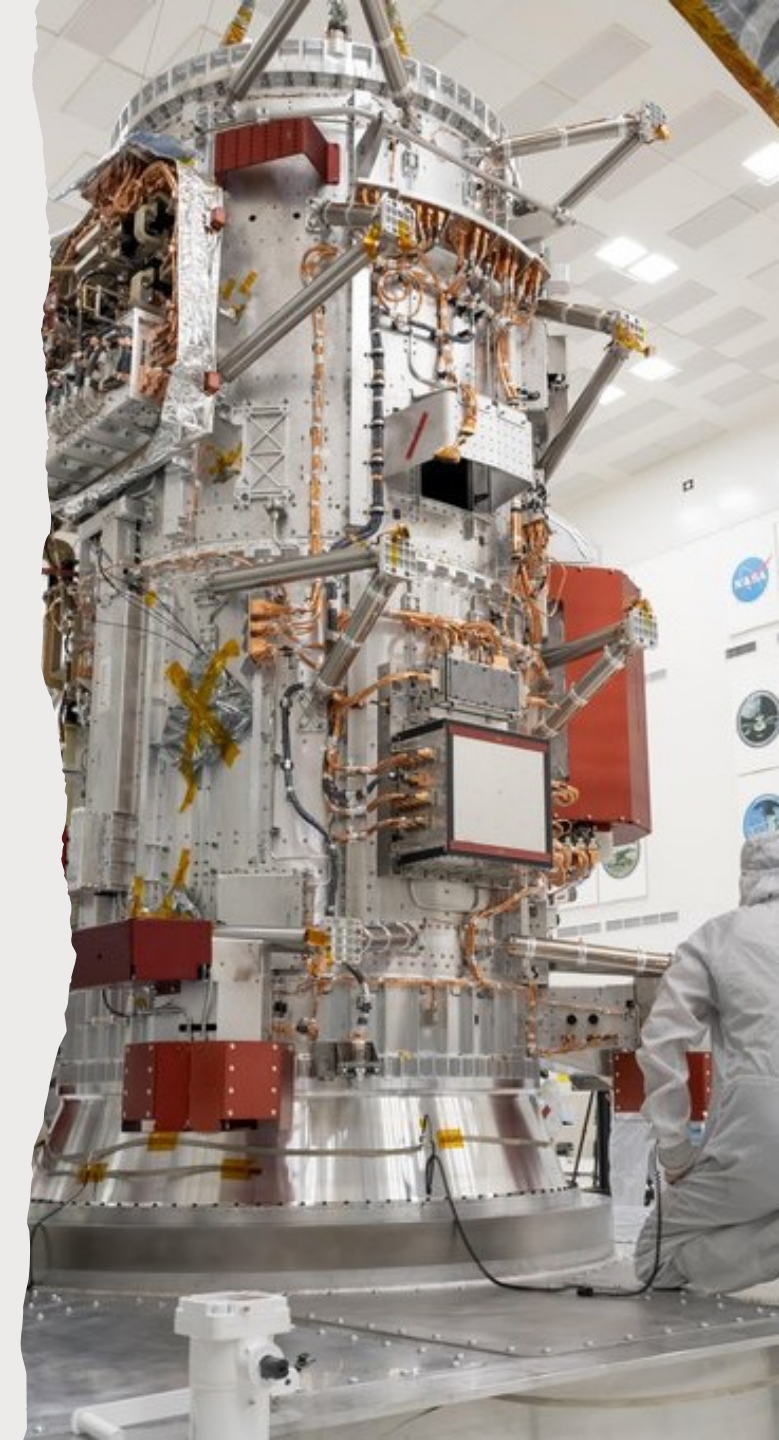




# THEME 1: Leading for Scientific Innovation and Breakthroughs

## Recommended Activities:

- Attendance to conferences
- Participation in strategy white papers (e.g., decadal surveys)
- Negotiations (APPEL-vNG) (2 days)
- Creativity and Innovation (APPEL-vC&I) (1 day)
- Reflection and conversation about how these activities shape the Agency research agenda





## THEME 2: Cooperation in High Performing Teams

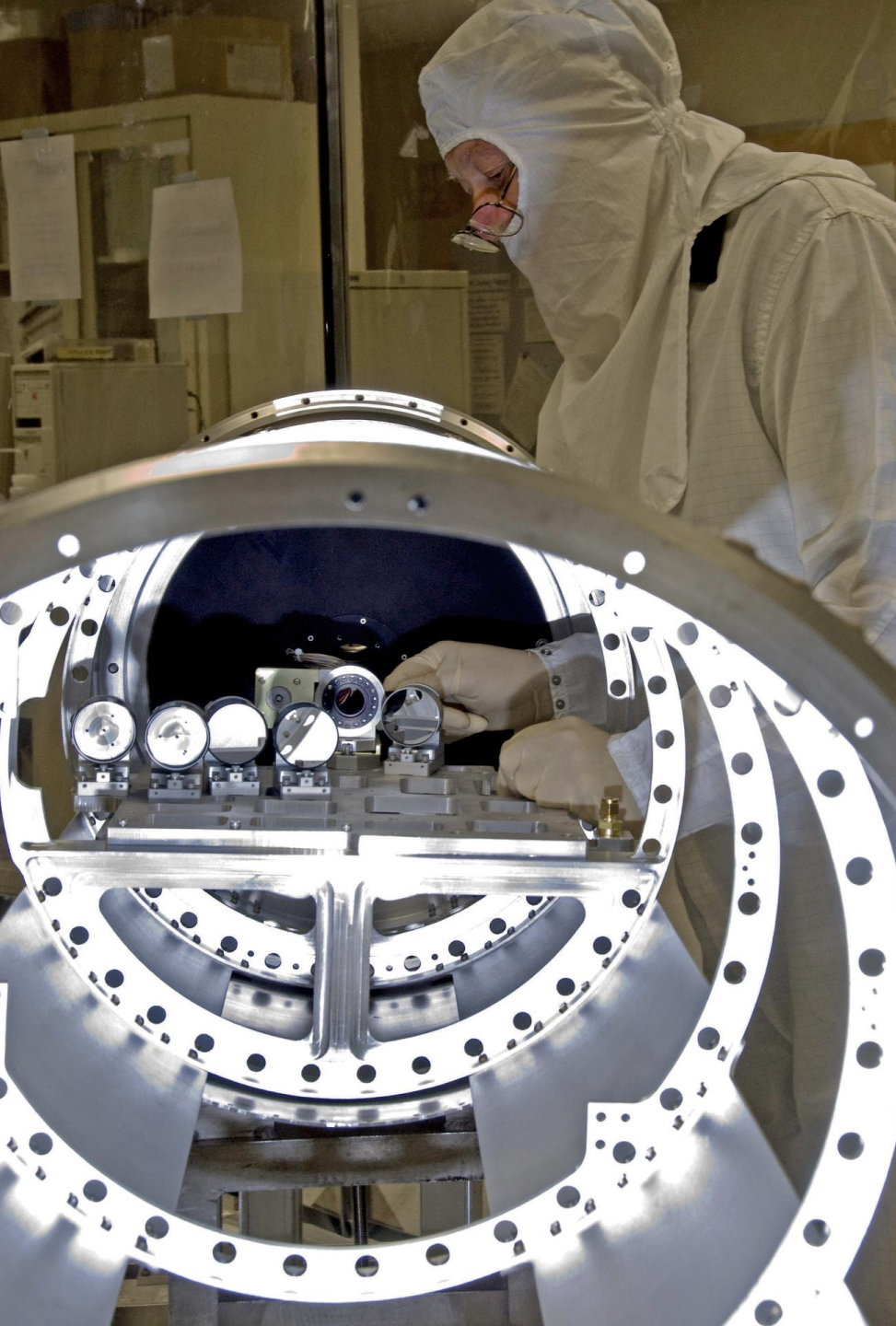
Enabling teams to thrive and solve complex problems through sharing of ideas and mutual learning in a psychologically safe environment.

To accomplish this goal:

- Psychologically Safe High-Performance Teams
- Effective Leverage and Accountability of Diverse Skillsets
- Effective teaming in blended and virtual environments







## THEME 2: Cooperation in High Performing Teams

---

- Recommended Activities:
  - Details, and rotations that require participation in Center-wide, Agency-wide, Interagency, and/or International teams
  - Service at SMD proposal review panels
  - Service in field activities (e.g., observation campaigns)
  - Crucial Conversations for Accountability (APPEL-vCA) (2 days)
  - Managing Virtual Teams (APPEL-MVT) (2 days)
  - Tactical Skills for Creating High Performance Teams (APPEL-vCHPT) (2 days)
  - Team Leadership (APPEL-vTL) (3 days)



# THEME 3: Leading Change

Recognizing that there are two aspects to change: (a) realigning technical, financial, and human resources and (b) also guiding the human aspect of reacting and thriving through these transitions. The first aspect requires translating strategic goals into actionable plans, initiatives, and science products by aligning technical, financial, and human resources at NASA and collaborating organizations. The second aspect requires the ability to influence outcomes with and without formal authority.

To accomplish this goal:

- Data-Informed decisions that best meet the needs of the organization
- Well-designed and effectively implemented change initiatives
- Creation of environments that enable growth and to gain buy-in for change initiatives
- Anticipation of future needs of the organization and potential roadblocks to success







# THEME 3: Leading Change

---

## Recommended Activities:

- Details, and rotations that require participation in Center-wide, Agency-wide, Interagency, and/or International teams
- Change Management (APPEL – vTCM)
- Reflection and conversations about best practices and lessons learned from projects and initiatives



# THEME 4: Strategic Leadership

Using personal and organizational values, talents, and experience to assess the impact that internal and external stakeholders and competitive environments have on NASA science, providing for data-informed decision-making.

To accomplish this goal:

- Understanding of modern leadership theory and application of those practices to science organizations
- Perspective of the Importance of Organizations and their Ecosystems
- Development of individual leadership style aligned with modern leadership practices





# THEME 4: Strategic Leadership

## Recommended Activities:

- Details, and rotations that require participation in Center-wide, Agency-wide, Interagency, and/or International teams
- Team Leadership (APPEL-vTL) (3 days)
- Leading Complex Projects (APPEL-vLCP)
- Strategic Thinking for Project Success (APPEL-vSTPS) (3 days)
- External coursework
- Reflection and conversations about how organizational culture and NASA's external ecosystem shape Agency decision-making.



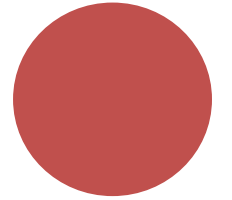


# THEME 5: Influence Leadership

Empowering scientists in formal and informal leadership positions to effectively advocate for, negotiate for, guide, develop, and communicate the value of science products and processes on behalf of their teams and organization.

To accomplish this goal:

- Optimization of Processes and Results in Negotiations
- Amplification of Scientific Impact through cooperative alliances
- Ability to be an effective influencer





# THEME 5: Influence Leadership

---

## Recommended Activities

- Supervisory positions, details, and/or rotations.
- Service at SMD proposal review panels
- Negotiations (APPEL-vNG) (2 days)







## THEME 6: Ethical Leadership

Leveraging personal and NASA core values to build an ethical framework for research integrity, decision-making, and conflict resolution in dynamic, uncertain, complex, and ambiguous situations that may arise in global scientific communities.

To accomplish this goal:

- Align Personal and NASA's Core Values
- Ethical Conflict Resolution
- Ethical Conduct in Research, Collaboration, and Management





## THEME 6: Ethical Leadership

### Recommended Activities:

- External curriculum, such as "Ethics in Action: Leading with Integrity" offered by Brookings or free Coursera training: "Ethical Leadership Through Giving Voice to Values"

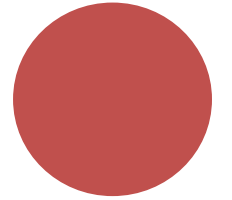


# THEME 7: Leadership in Federal Government Agencies

Gaining keen insights into how the goals of government influence the content, implementation, and policies embedded in NASA's scientific portfolio and becoming a proficient steward of government resources.

To accomplish this goal:

- Excellence in Stewardship of Government Resources
- Informed and Comprehensive Implementation of Government Policy

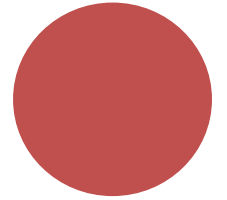




# THEME 7: Leadership in Federal Government Agencies

## Recommended Activities:

- Contract Management Principles and Practices for Project Managers (APPEL-vCMPP) (3 days)
- Types of Contracts (APPEL-vCONT) (3 days)
- External coursework such as "Politics and Policymaking" offered by Brookings.





# THEME 8: Leading a Diverse and Inclusive Workforce

Becoming equipped to lead with empathy and self-awareness across differences of thought, demographic and socioeconomic backgrounds, and experiences. Recognizing and mitigating the impact that demographically homogenous organizations have on creativity and generation of viable solutions for the pure and applied science problems that are part of NASA's portfolio.

To accomplish this goal:

- Safe and professional environment for stakeholders of all backgrounds
- Increasingly inclusive community of diverse science stakeholders





# THEME 8: Leading a Diverse and Inclusive Workforce

## Recommended Activities:

- Participation in details / rotations outside Science organizations, which are more likely to have a more diverse population.
- Content covered through presentations created by SMD's IDEA Working Group
- The Best Teams: Introverts, Extraverts and Ambiverts (APPEL-vTBT) (2 days)
- Cognitive Bias in Engineering Decision-Making (APPEL-vCBED) (1 day)







# THEME 9: Leading in the Global Scientific Community

Capitalizing on the global flow of scientific knowledge to drive the innovations and breakthroughs that maintain and enhance NASA's position as at the forefront of exploration.

To accomplish this goal

- Global Situational Awareness in Relevant Science Fields
- Ability to position an organization in the global market and maintain a competitive advantage



## THEME 9: Leading in the Global Scientific Community

### Recommended Activities:

- Participation in International Conferences
- Leading Complex Projects (APPEL-vLCP) (3 days)



# THEME 10: Communication in Science Leadership

---

Promoting and highlighting the impact of scientific goals, processes, findings, and breakthroughs within and across fields and to general audiences in a clear, timely, inclusive, and professional manner.

To accomplish this goal:

- Communication for Impact Within and Across Technical Fields
- Communication for Understanding with Non-Technical Audiences and Decision-Makers





# THEME 10: Communication in Science Leadership

---

## Recommended Activities:


- Communicating Technical Issues (APPEL-vCTI) (2 days)
- Crucial Conversations for Accountability (APPEL-vCA) (2 days)
- Crucial Conversations for Mastering Dialogue (APPEL-vCC) (2 days)







Thanks!

- 
- Barb Fries, OCHCO
  - Tyson Littenberg, Marshall
  - Renee Weber, Marshall
  - Neyda Abreu, Langley
    - with the leadership of Ellen Gertsen and Lori Simmons and contributions from many orgs across the Agency