

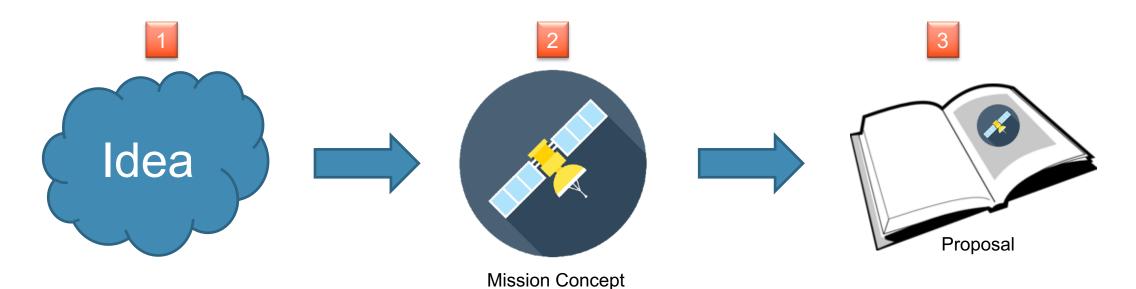
# **Goddard Space Flight Center Proposal Development**



Deborah Amato February 8, 2021

### From Notion to Proposal





First, have a good idea...

Is there a relevant, strategic, and compelling need for addressing these scientific questions and with these scientific measurements?

Then, define a strong mission concept...

Does your concept have a high probability of success? (technical, cost)

Communicate!

With limited time and limited pages, you must speak to a diverse audience and convince them *this* is the proposal to select.

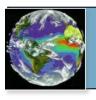
### **Goddard's Core Science Lines of Business**







**Astrophysics** 



**Earth Science** 



Heliophysics



**Planetary Science** 

## **Steps in Science Mission/Instrument Competition**



#### Concept Selection

# Concept Development

# Proposal Development

#### HQ Evaluation

- LOB issues Call for Concepts
- Concepts vetted against multiple strategic and tactical factors
- Assessments:

Science concept/STM

Technical feasibility

Schedule/cost feasibility and risk

Independent reviews:

Blue Team - strategy

Pink Team - storyboard (recommended)

Red Team

Gold Team (optional)

 Executive Review organization approval and commitment

- Step 1: Proposal team must respond to Potential Major Weaknesses
- Step 2: Proposal team still actively engaged preparing for Site Visit/ PI Briefing to Selection Official

Monthly (or bi-monthly) status reviews during development

## Supporting PI Development



### PI qualifications

 Science community recognition/publication, Leadership skills, Management skills, Spaceflight systems development knowledge, Mission experience

### Development opportunities

- Multiple training opportunities: Mission Concept Development Workshop, Goddard Technical Managers Training, Leadership training, proposal writing, HQ PI Launchpad
- Formalizing a Goddard PI Development Program
- Mentoring informal and formal program
- Science and Engineering Collaboration Program rotations to engineering
- Proactively promoting opportunities for gaining increasingly responsible mission experience:
  - PI experiences on smaller efforts: IRAD, R&A proposals, Tech development (PICASSO, IIP, H-TIDeS, etc.), and Sounding rocket, balloon, and airborne experiments
  - Deputy PI and PS experience