

National Aeronautics and  
Space Administration



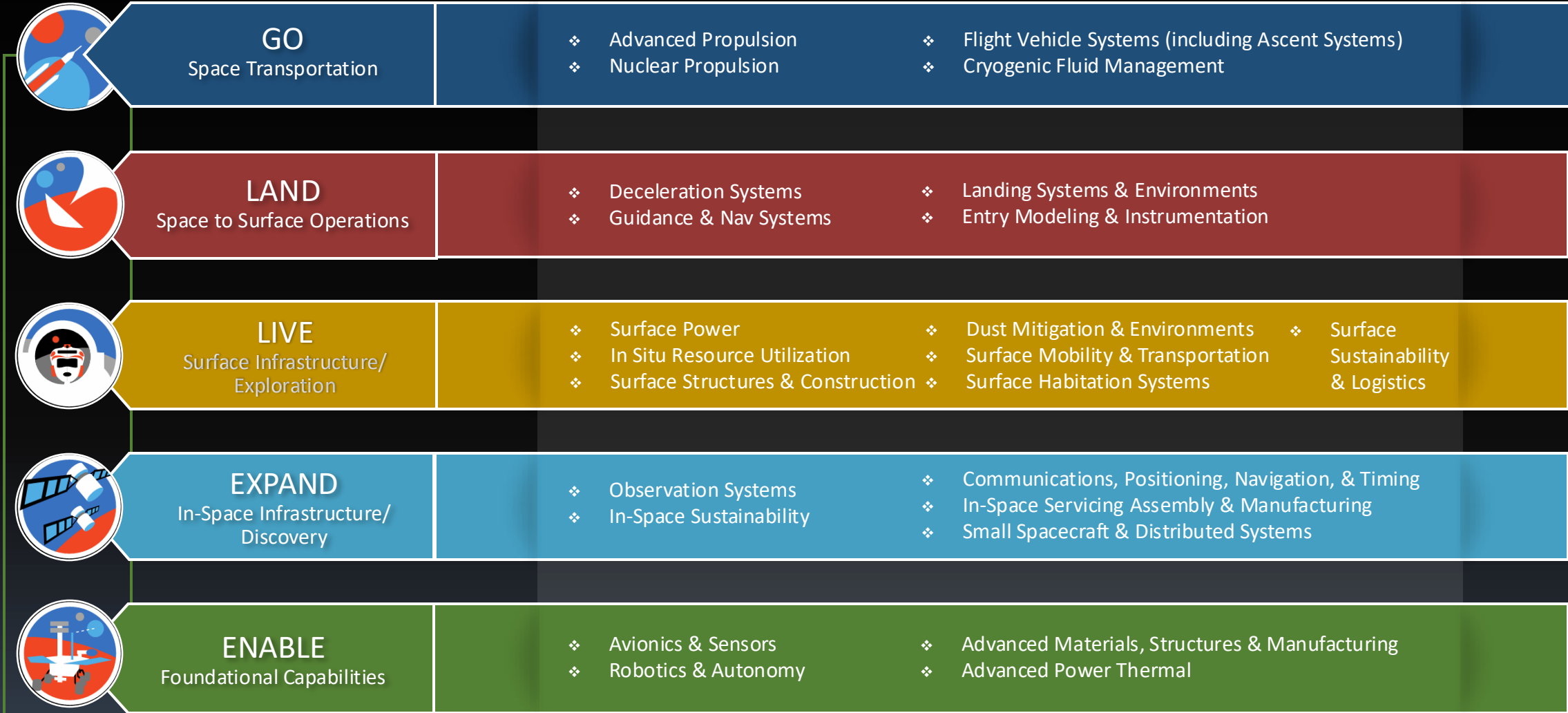
# NASA's Space Technology Mission Directorate Update

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# Tech Base Functional Domains



❖ Capability Portfolio

<p><b>CATALYSTS</b> Innovative Mechanisms</p>	<ul style="list-style-type: none"> <li>• NIAC/CIF/ECI</li> <li>• STRG</li> </ul>	<ul style="list-style-type: none"> <li>• PCC</li> <li>• Tech Transfer</li> </ul>	<ul style="list-style-type: none"> <li>• SBIR/STTR</li> <li>• Flight Opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• TP/ACO</li> <li>• Inclusive Innovation</li> </ul>
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## WHY

To ensure American leadership in space and increase the rate of scientific discoveries within our lifetimes.

## HOW

- Adapt commercial capabilities and best practices
- Embrace risk-informed decision making and risk tolerance
- Iterate rapidly and apply constraint-driven mission philosophy (cost / schedule)
- Cultivate intelligible failure

## WHAT

A balanced end-to-end (TRL 2 to 7+) technology portfolio:

- Small Spacecraft and Distributed Systems
- Communications, Position, Navigation, and Timing
- Observation Systems
- In-Space Servicing, Assembly, and Manufacturing
- In-Space Sustainability

## WHO

- (Constructive) disruptive innovators
- Subject matter experts across NASA, industry, academia, and other U.S. government agencies
- Forward-leaning advocates for technologies that address the needs of NASA and the nation

# Catalysts: Mechanisms to Advance Technologies and Address Shortfalls

STMD uses a variety of tools and mechanisms to address capability shortfalls and nurture the knowledge and talent base for civil space while also supporting agency level functions



**Contracts**



**Grants and  
Cooperative  
Agreements**



**Internal Awards**



**Challenges**



**Flight Tests**



**Funded /  
Unfunded Space  
Act Agreements**

**Cross-cutting activities (Inclusive Innovation, NASA I-Corps) and other tools**

NASA Innovative  
Advanced  
Concepts

Center Innovation  
Fund / Early  
Career Initiative

Space Technology  
Research Grants

Prizes, Challenges,  
and Crowdsourcing

Tipping Point

Announcement of  
Collaboration  
Opportunity

Small Business  
Innovation  
Research / Small  
Business  
Technology  
Transfer

Flight Opportunities

Technology  
Transfer

Explore opportunities to work with us: [techport.nasa.gov/opportunities](https://techport.nasa.gov/opportunities)