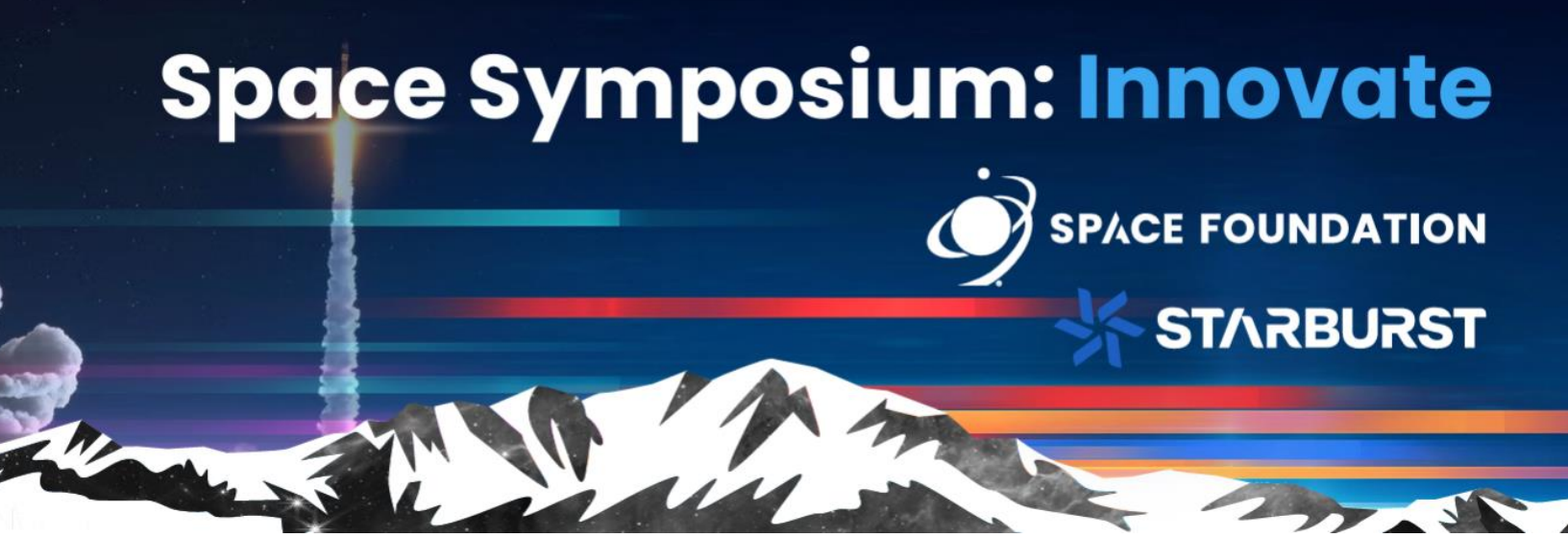

Application Review Criteria

Selection Guidelines
The following sections outline recommendations and best practices for evaluating applicants' technologies and ideas for the Innovate Pitch Competition. The first section provides guidance on assessing the innovative approaches and alignment of the submissions with the competition's goals. The second section delves deeper into the types of ideas and solutions that hold the potential to deliver near-term value and transformative impact within the space industry.

Innovation and Company Rubric

Technology Viability

Technology Readiness Level (TRL): The technology must have a TRL between 4 and 7, indicating readiness for prototype testing or environmental scale. Applicants must demonstrate a clear pathway from concept to deployment, identifying critical challenges and presenting actionable plans for overcoming them.

Innovation Evolution: Startups should present solutions that address current gaps or anticipated future needs within the space industry. Technology must exhibit adaptability, ensuring long-term relevance as industry evolves.

Enabling Technology: Priority is given to technologies that open new markets or enable future capabilities, especially those that could fundamentally transform industry practices.

Market Potential

Market Size and Growth: Applicants must target a scalable and expanding market, with clearly defined customer segments. Solutions aimed at industries with strong demand and significant growth potential will be prioritized.

Market Impact: The proposed technology should have a demonstrable impact on the evolution of industry practices, processes, or architecture. Applicants should explain how their solution

could address limitations of current methods or introduce groundbreaking advancements.

Dual-Use Applications: Preference will be given to solutions that have applications in both commercial and government markets. The ability to address diverse use cases effectively strengthens an application's viability.

Team

Expertise and Experience: The team must demonstrate technical expertise and a proven ability to develop and scale the technology. A strong track record in entrepreneurial ventures or relevant professional accomplishments will enhance the application.

Diversity of Perspectives: Teams with diverse professional experiences, demographics, and perspectives are highly valued. Such diversity often leads to more innovative problem-solving and robust decision-making.

Professional Relationships: A pre-existing, collaborative relationship among team members is a significant advantage. Teams that have worked together successfully in the past are more likely to navigate challenges effectively.

Financial

Funding and Investment Potential: Startups should present a realistic assessment of their funding needs and outline a clear plan to attract future investment. Evidence of initial traction, such as investor interest or revenue generation, strengthens the application.

Path to Market: Applicants must detail a commercialization strategy that minimizes reliance on government funding. The strategy should include actionable steps for achieving sustainable revenue growth and scaling the business.

Alignment with Competition Goals

Mission Alignment: The startup's mission and technology must align with the objectives of the Innovate Pitch Competition, including advancing innovation, fostering collaboration, and promoting growth in the space sector.

Stage of Development: The company should be at an appropriate stage to benefit from the mentorship, resources, and networking opportunities provided by the competition. Early-stage companies with a clear roadmap for growth are ideal candidates.

Innovative Use Case Ideas

The following company and idea focus areas align with the goals of the Innovate Pitch Competition by driving innovation in space technology while addressing critical challenges and opportunities in the space industry. These use cases aim to advance both commercial and governmental capabilities, foster sustainable growth, and push the boundaries of what is possible in space exploration and related industries. Consideration should also be given to technologies or concepts that can be adapted to multiple applications or serve as essential components in enabling success across the space ecosystem.

Space Transportation and Mobility

Autonomous Orbital Transfer Vehicles: Innovative spacecraft capable of transferring payloads between orbits autonomously, reducing dependency on manual control and enabling more efficient satellite deployment.

Reusable Launch Systems: Technologies that enhance reusability and cost-efficiency of launch vehicles, focusing on components or materials that extend the lifespan of reusable systems.

Space Data and Analytics

AI-Driven Space Traffic Management: Solutions leveraging artificial intelligence to predict and manage orbital debris, ensuring sustainable use of Earth's orbital zones.

Satellite Data Monetization Platforms: Tools and systems that help commercial entities monetize satellite data by offering real-time insights for industries like agriculture, maritime, and urban development.

Communication and Networking

Advanced Space-Based Communication Networks: Development of next-generation satellite constellations capable of enabling seamless global connectivity, especially in underserved regions.

Quantum Communication Technologies: Space-to-Earth quantum encryption systems for secure data transmission, addressing cybersecurity challenges in the space domain.

Sustainability and Resource Utilization

Space Debris Mitigation: Systems designed to actively remove or repurpose orbital debris, reducing risks to existing satellites and future missions.

In-Situ Resource Utilization (ISRU): Technologies that enable extraction and processing of resources on celestial bodies like the Moon or asteroids for construction or fuel production.

Space Infrastructure and Manufacturing

On-Orbit Assembly Technologies: Autonomous systems capable of assembling large structures in orbit, paving the way for space-based solar power stations or large-scale research

platforms.

Microgravity Manufacturing: Solutions that leverage the unique properties of microgravity to produce superior materials or products, such as fiber optics or pharmaceuticals, that are difficult or impossible to manufacture on Earth.

Defense and National Security

Dual-Use Satellite Systems: Technologies that provide both commercial and military capabilities, such as Earth observation platforms for disaster management and defense applications.

Resilient Space Assets: Development of satellites or systems designed to withstand cyberattacks, signal jamming, or physical interference.

Space Exploration and Science

Autonomous Lunar or Martian Rovers: Rovers equipped with advanced AI to explore lunar or Martian terrain independently, collecting valuable data while minimizing human intervention.

Space-Based Observatories: Innovations that enhance the capabilities of telescopes or scientific instruments for deep-space exploration and Earth observation.

Human Presence and Well-Being

Habitat Modules for Long-Duration Missions: Compact, modular habitats optimized for human health and comfort during extended missions to the Moon, Mars, or deep space.

Advanced Space Suits: Next-generation suits designed for enhanced mobility, safety, and functionality in challenging extraterrestrial environments.