2021 Breakthrough, Innovative, and Game-changing (BIG) Idea Challenge
Final Scoring Matrix

TECHNICAL PAPER (Max 80 Points)	Point Scale
Verification Testing • Did the team adequately identify and mitigate any risks associated with development and verification of the concept? • Was the testing conducted at a high enough level of fidelity to provide confidence the concept would work in a lunar environment? • Were the test results in line with the expected results developed through analytical methods? • Did the team draw adequate conclusions about their design solution?	_____ /Out of 30
Technical Credibility and Feasibility • How well did the team's implementation of the concept meet the original goals and objectives? • Did the verification testing increase the concept's TRL level, or advance the state of the art? • Did the technology reach the minimum Technology Readiness Level (TRL) of 4? • Did the team demonstrate a cost effective and viable solution for lunar dust mitigation? • Is the technology operationally resilient? (ability to withstand adverse circumstances and the harsh lunar environment, the capability to degrade gracefully) • Is the dust mitigation strategy credible? • Did the team identify and justify potential stakeholders/funders (i.e., Exploration, Science, Commercial)?	_____ /Out of 25
Technical Management • Did the team perform effective project management and demonstrate responsiveness to unplanned events? • How well did the team describe their ConOps, including all design assumptions and decisions and address fabrication, transport, deployment, operations, etc.? • How well did the team manage the project's budget, schedule, and scope? • How well did the team adhere to the provided requirements and constraints for the design competition? • Did the team provide adequate justification for exceeding any established constraints?	_____ /Out of 15
Path-to-Flight • Did the team adequately describe the concept's anticipated path-to-flight for a mission to the Moon by 2026? • Did the team provide adequate rationale for their trades and critical modifications made to the design for use on the Moon? • Have all of the needed components been identified and assessed for operation in the expected lunar environments? • Does the dust mitigation strategy present a path to implementation?	_____ /Out of 10
Total Points – Technical Paper Criteria	**/80**
PRESENTATION (Max 15 Points)	**Point Scale**

• Quality of verification testing results demonstration
• Quality of presentation
  ○ Clear presentation of information provided in technical paper
  ○ Quality of response to questions for presentation, models and/or prototypes
  ○ Presence of teamwork and integration
	_____
	/Out of 15

Total Points – Presentation Criteria	**/15**
POSTER (Max 5 Points)	**Point Scale**
• Poster quality • Clear presentation of information provided in technical paper • Audience engagement with judges and other participants (including responses to questions)	_____ /Out of 5
Total Points – Poster Criteria	**/5**
BONUS POINTS (Max 10 Points)	**Point Scale**
• At the time of final Forum, has the concept demonstrated enough merit that NASA should consider investing in making the concept flight-ready? • Is this technology in a position to be ready for use on the Moon by 2026? • Has the dust mitigation solution reached a TRL of 5 or greater? • Is the solution non-toxic?	_____ /Out of 10
Total Points – Bonus Section	**/10**

Total Score (Max 110 points) _____