

IAF SPACE EXPLORATION SYMPOSIUM (A3)  
Space Exploration Overview (1)

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ADVANCING SPACE EXPLORATION THROUGH CROWDFUNDING SPACE PROJECTS

**Abstract**

The Planetary Society's LightSail 2 solar sail spacecraft, currently in orbit, was entirely crowdfunded. Over the 10-year history of the project, 49,426 people from 109 countries contributed more than 7 million US dollars to make LightSail a reality. LightSail 2 has successfully demonstrated, for the first time, controlled solar sailing using a small spacecraft, in this case a 3U CubeSat, a technology that feeds forward to future deep space exploration. LightSail is a shining example of the promise of crowdfunding for space projects. The Planetary Society, the nongovernmental, non-profit organization behind LightSail, has been crowdfunding space projects for four decades. Over the decades, individuals have funded research projects, enabled science meetings, contributed to hardware and technology development and testing, and eventually developed payloads that have flown to other worlds. Projects have ranged from small (a few thousand US dollars) all the way up to the LightSail program. The Planetary Society was founded to prove public support for planetary exploration and provides opportunities for everyday individuals to take action to support space exploration. The opportunity to donate funds in support of science and technology projects has proven to be one of the most effective ways to meaningfully involve the public in space. The Planetary Society is very interested in seeing crowdfunding for space projects develop and grow. We think one way to do this is to match strong project ideas with strong crowdfunders. For The Planetary Society, this means starting open calls for proposals from the international space community for space exploration science and technology projects to be crowdfunded. In our IAC 2020 talk, we will discuss the call for proposals and provide details. We will also discuss crowdfunding as an avenue for limited but significant contributions to space exploration. With our new grant program, we will seek credible and significant research or hardware development projects, particularly those needing seed funding. Within those, we will seek projects of public interest, and investigators willing to provide regular updates to the public. We think the role of crowdfunding still has potential to grow, but we will need more time and more crowdfunding experiments to fully explore and test the boundaries of crowdfunding capacity. We hope the space industry can work together to unlock the potential of crowdfunded space projects – and thereby enable additional science and technology while directly engaging more people than ever in space exploration.