## BUSINESS INNOVATION SYMPOSIUM (E6) Case Studies and Prizes in Commercial Space (1)

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## CROWDFUNDING: AN ALTERNATIVE FUNDING INSTRUMENT FOR SPACE?

## Abstract

The space industry is characterised by long research phases, demanding technology requirements and high investment barriers, rendering space missions into a precarious adventure. Innovative solutions to circumvent part of these risks and associated funding issues are seen on both the demand and supply side. CubeSats for example reduce the risks through smaller, lighter and simpler satellite design at lower cost. Nevertheless, alternative funding mechanisms are of high need for the space sector, in particular regarding research development projects.

This contribution explores and analyses an emerging funding mechanism on the financing supply side known as crowdfunding. The different crowdfunding solutions and trends are outlined, and compared to other typical funding mechanisms. The different components of a crowdfunding campaign are highlighted and means how to properly adjust projects for crowdfunding are discussed - illustrated by case studies. The aim of this paper is to provide a guide for academia and start-ups to properly utilise crowdfunding for high-risk innovative research and development in the area of space, space exploration and novel space technology.

In conclusion, it is the authors' opinion, that crowdfunding demands for a new way of working for the space sector which involves the public in a substantial different way. Whilst crowdfunding is in most cases not suitable to fund intensive technology developments, it is an interesting perspective for academic projects and start-ups that need the engagement of the general public, in particular for non-commercial space missions. Including this instrument carefully in the portfolio of funding instruments provides new exciting ways of promoting and funding projects that ultimately open new doors for spaceflight and space applications.