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ENTREPRENEURSHIP & INVESTMENT SYMPOSIUM (E6.)  
Attracting Private Investment (2.)

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AN ANALYTICAL FRAMEWORK FOR PRIVATE INVESTMENTS IN EMERGING SPACE  
BUSINESS ACTIVITIES

**Abstract**

The reduction of employment and turnover in European space manufacturing industry (ESMI) has determined the regrouping of large industrial groups, but also the entry of the new young and small players, represented by innovative small and medium enterprises (SMEs). The main difficulties in attracting private capital to support entrepreneurial efforts in space business activities are: expensiveness, risky projects, long Return on Investment (ROI) cycle, small propensity in investment. We propose an analysis of the investment options in a dynamic model and we analyze the optimal timing and the major irreversible investments financing in the presence of moral hazard. The main contribution is to apply real option concept in a dynamic model dedicated IPO for space business activities. The problem of space business IPOs is associated with the exit of venture capital companies, as main condition of liquidity and transparency of this type of investments. Innovative SMEs pass through several stages from "seed" before production, early stage to expansion or development. The VCs could participate at any stage but their propensity is to invest later in the life-cycle. The exit takes the form of mergers and acquisition (MA) or via IPOs. In the literature the concept of real option (Myers, 1977 - is the right but not the obligation to undertake some business decisions, typically the option to make a capital investment) is relative new and because of the technical difficulties there is a split between real option version continuous and the agency problem models in discrete mode. The advantage of this model is he offering of knowledge of mechanisms specific of contracts between entrepreneurs and VC investors and the role of asymmetric information and moral hazard.