25th SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
Space Economy: Valuing the Uses (3)

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PREVISION AND PROSPECTIVE TO FORECAST IN THE SPACE ECONOMY. APPLICATION TO THE EUROPEAN SPACE SECTOR.

Abstract

The value of investing in space depends largely on our vision of the space sector future. So the space economy needs instruments to provide private and public actors with forecast information on the short term and long term horizon. This paper, based on a PhD research in space economics, presents a methodology and its application to the European space sector for both short term (prevision) and long term (prospective) evaluation of the future.

For the **Prevision**, we design a typical chain model of the space sector "From budget to employment". This model is transformed in a system of time series equations. The parameters of this multiple equations system are computed through econometric recent algorithms implemented in EVIEWS software commands. Using Eurospace data, we generate a forecast until 2015.

Prospective, long-term oriented and complementing the prevision, does not produce predictions but seeks to envisage the possible futures. To do so we use a three phases methodology based on advanced works in prospective:

1-Construction of the analytic base (research of key variables of the system through structural analysis),

2-Scanning the scope of possibilities with morphological analysis,

3-Generation of final scenarios.

Applied to the European space economy for 2030-2040, three classical synthesis scenarios emerge: grey (pessimistic), blue (trendy) and pink (optimistic).

In conclusion we promote the necessity to rationalize the "uncertainty of the future", thus avoiding the temptation of 'science fiction' in predicting space perspectives.