Paper ID: 22609
oral
student

27th SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
The space economy: what are the socio-economic impacts? (3)

Author: Ms. Annie Martin
Ecole Polytechnique de Montreal, Canada, annie.martin@polymtl.ca

Prof. Catherine Beaudry
Ecole Polytechnique de Montreal, Canada, catherine.beaudry@polymtl.ca

MEASURING COLLABORATION MECHANISMS IN THE CANADIAN SPACE SECTOR

Abstract

Innovation in space science and technology involves interactions among players from the public and private sectors. Interinstitutional and intersectoral collaborations have been proven to stimulate innovative activities and improve innovation outcomes in many sectors of activities. The Government of Canada (GoC), being the main player in the Canadian space sector, has an important role to play in encouraging these collaborations. Both the GoC and the Canadian Space Agency (CSA) emphasize the importance of interinstitutional collaborations to accelerate innovation, promote spin-offs and ensure sustainable funding of research and innovation programs. How to measure collaborations, to report on it and to evaluate it? Indeed, measuring the extent of collaboration is challenging due to the variety of collaboration mechanisms used and the degree to which organisations report on these interactions. The space sector also has its own specificities which call for a distinct methodology: the culture of secret, the publication practices, the competitive advantage of certain collaborations, the limited funding available, etc. This paper will present a methodology to study the collaborations in the Canadian space sector using bibliometrics and scientometrics data, surveys, and publicly available data on CSA contracts. Mapping all these datasets will help identify the extent of interinstitutional collaborations, cross-fertilization between terrestrial and space research, and the impact of CSA funding on research outputs. Results from three case studies will be presented: space medicine and life sciences, space robotics and rovers, and Earth observation. Impact measurement activities not only play an important role in justifying stakeholders' investments but also help understand the innovation patterns and efficiency of the different mechanisms used.