

34th IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
Space Economy - New models and economic approaches for private space ventures, with an emphasis on
the needs of emerging space nations (3)

Author: Ms. Tania María Robles Hernández
Agencia Espacial Mexicana (AEM), Mexico, taniarblsh@gmail.com

Mr. Hernán David Mateus Jiménez
Universidad Nacional de Colombia, Colombia, hdmateusj@unal.edu.co

ANALYSIS OF SYSTEMIC CAPABILITIES AND ITS RELATION WITH THE DEVELOPMENT OF
INNOVATIVE SPACE SECTOR IN EMERGING COUNTRIES: THE CASE OF HISPANIC AMERICA

Abstract

Since the beginning of the 1960s with the formation of the National Space Agencies of Argentina and Mexico the Hispanic participation in space began. However due to political and economic reasons they ceased in the following decades. However today those and new countries have government representatives who dictate the national and regional agenda. This can be seen from the signing on November 16, 2020 of the agreement that creates the Latin American and Caribbean Space Agency (ALCE). Among the first actions that are the creation of participation and collaboration mechanisms in regional technical projects.

In addition, it has been observed in multiple efforts and forums that in the Hispanic American region, there is also a growing interest in the industrial, academic and governmental development of the space sector observed in the international participation of organizations from this region in international projects and opportunities for example as those established by United Nations for the launch of CubeSats, the development of human spaceflight programs, or participation in the International Space Station. However in the area of private industry there is a noticeable deficiency in the creation or growth of companies in the region compared to other emerging areas such as Southern Asia and Eastern Europe.

This paper analyzes and discusses the circumstances, regarding the systemic pillars of the nations that represent a decisive factor in the short, medium and long term in the generation of an industry with technical, organizational and economic capabilities in Newspace. Due to this fact, all the cases are studied where startups have managed to consolidate in their innovation field. Within these three categories or pillars are established: type of activity in the space sector; economic development of the country of establishment and operation of the companies (including RD and venture capital funding-investment); and status of the national science and technology, industrial policy and space policy. This perspective allows us to identify overriding factors in the development of the growing industry and the types of industry that have developed in each of the situations, mainly in relation to the national space related factors to which the analyzed case belongs.

Our research also seeks to detail what is vital for the development of the Newspace industry in space emerging countries in Hispanic America, as well as to generate recommendations to the actors and decision makers taking into account their international and socioeconomic context.