

19th IAA SYMPOSIUM ON VISIONS AND STRATEGIES FOR THE FUTURE (D4)
Contribution of Moon Village to Solving Global Societal Issues (2)

Author: Mr. Juan Carlos Mariscal
Dereum Labs S.A. de C.V., Mexico, carlos.mariscal@dereum.mx

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

Mr. Genaro Grajeda
Mexico, genaro.grajeda@spacegeneration.org

Mr. César Augusto Serrano Baza
Dereum Labs S.A. de C.V., Mexico, cesar.baza@dereum.mx

Ms. Kaori Becerril
Dereum Labs S.A. de C.V., Mexico, kaori.becerril@dereum.mx

PROPOSAL OF A FEASIBLE CAPACITY BUILDING ROADMAP TO INTEGRATE MEXICO TO
THE GLOBAL EFFORTS FOR THE MOON EXPLORATION UNDER THE FRAMEWORK OF THE
PESC PROJECT OF THE MOON VILLAGE ASSOCIATION AND ITS BENEFITS FOR OTHER
LATIN-AMERICAN COUNTRIES.

Abstract

During the past few years, the interest for the exploration and creation of permanent human settlements on the Moon and other celestial bodies like Mars, has increased among states and private entities around the globe and such topics are discussed more frequently in different fora. Some ambitious efforts have been set forth by the classic space faring nations, and due to the challenging nature of such efforts, some of them have called the world to join forces and get to the Moon, for instance, as a species, instead of nations.

However, due to economic, capacity, cultural, or even political factors, many countries have not yet taken action or even questioned how they can contribute to the exploration of space and the eventual utilization of its resources.

Consider Mexico as a case of study; the fifteenth largest economy in the world, with strong manufacturing capabilities for the aeronautical and automotive industries and with several space capabilities distributed among universities, research institutes, private entities and its national space agency (AEM, Mexican Space Agency), yet the country counts no significant space exploration programs or plans, which is a result of the lack of knowledge of the socio-economic benefits of space, a common national goal and articulation of efforts, capabilities and resources.

This work further explores the political and economic challenges for the establishment of a space program in Mexico and proposes a thirty-year, financially-feasible roadmap to effectively integrate the country to the global efforts for the exploration of the Moon and the resource utilization value chain, by establishing a common, realistic vision of the possible contributions of the country to the sector, taking into account its capabilities, current projects and interests. Identifying challenges and global needs (building blocks) and proposing long-term projects to address them. These projects and a roadmap form part of the framework of the Moon Village Association to promote the participation of emerging space countries (PESC).