

31st IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
Ways ahead in Space Exploration (2)

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FUTURE STEPS IN INTERNATIONAL COOPERATION FOR SPACE EXPLORATION AND
HUMAN SPACEFLIGHT: STAKES AND CHALLENGES FOR EUROPE

Abstract

After years of struggle to build a steady and shared vision for the future of space exploration and human spaceflight, including in particular the preparation of the post-ISS era, recent developments suggest that the state of affairs is now progressing as international partners seem to be converging toward a shared enthusiasm for a return to the Moon in preparation of a future Mars mission. The important steps forward made by the American administration show a strong willingness to engage more actively in the preparation of future human space exploration missions through concepts such as a Deep Space Gateway in Cis-lunar orbit.

The materialization of a full-fledged programme with commercial and international contributions still faces major hurdles including the definition of a technical and legal architecture meeting the objectives of diverse partners, the allocation of an appropriate budget (which may be challenged by the continuation of ISS operations) and eventually an official endorsement by partners' establishments. This being said, plans are shaping up and some partners have already expressed some interest through declarations and preliminary steps. Overall, in a context where drivers seem to outweigh barriers, the next step of international cooperation in space exploration and Human spaceflight seems increasingly closer to becoming a reality.

This evolving context raises a number of questions on the role that Europe could play in a future international programme and on the challenges that Europe will face to take an active role and position itself as a key partner. The paper will provide the results of a preparatory research that the European Space Policy Institute (ESPI) will conduct on the issue as a first step toward a possible full-fledged report on the topic. The research aims to provide elements of consideration on the matter to support future decision-making in this field. More specifically the analysis will focus on two key topics:

1) The role of Europe in international cooperation: The paper will investigate possible opportunities for Europe to play an important role in the emerging cooperation framework and to contribute actively to the development and validation of key capabilities such as in-situ resource utilization, robotic-human cooperative operations or ground base assembly among others.

2) Key challenges to position Europe as a key partner: The paper will discuss the challenges that Europe will face to position itself as a key partner and in particular those related to governance and legal and programmatic frameworks.