

Return to the Moon (02)
 Concepts for Robotic and Human Missions to the Moon (3)

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TOWARDS THE 2ND VERSION OF THE ISECG GLOBAL EXPLORATION ROADMAP

Abstract

The International Space Exploration Coordination Group (ISECG) was established in response to “The Global Exploration Strategy: The Framework for Coordination” developed by fourteen space agencies and released in May 2007. This GES Framework Document recognizes that preparing for human space exploration is a stepwise process, starting with basic knowledge and culminating in sustained human presence in space.

ISECG released the first iteration of the ISECG Global Exploration Roadmap (GER) in September 2011. The development of this first iteration focused on developing the overall framework, consisting of common goals for exploration, the long-range strategy and associated optional mission scenarios and Design Reference Missions (DRM’s) as well as near-term areas for coordination and cooperation. Through the development of the GER participating agencies demonstrate their commitment to coordinate near-term investments.

Work on the 2nd iteration of the GER has already been started. Updates of the GER are informed by evolutions of agency’s exploration policies and plans, agency individual and coordinated analysis activities relevant for various elements of the GER framework as well as coordinated stakeholder engagement activities.

Areas which will be in particular further developed in the 2nd iteration include

- A further refinement and definition of the optional mission scenarios, emphasising the definition of near-term DRM’s;

- An elaboration of the benefits resulting from global space exploration and a refinement of common goals;
- The identification of agencies plans for technology developments enabling the implementation of the ISECG DRM's; this assessment will identify possible technology gaps, opportunities for cooperation and coordination in developing and demonstrating technologies as well as opportunities technology pull.
- The definition and prioritization of strategic knowledge gaps related to the ISECG DRM's as well as an assessment of the contributions of planned robotic missions in addressing these gaps.
- An overview of planned terrestrial analogue activities related opportunities for coordination and cooperation and their contribution to enabling the ISECG DRM's.

This paper will provide early insight in envisaged updates of the GER and in particular assess the implications on the “Moon Next” mission scenario included in the GER.