Technology Roadmaps for Moon and Mars Exploration

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1. Introduction

Robotics and human space exploration space missions have brought astonishing accomplishments till date (e.g. 12 humans actually walking on the lunar surface).

A Global Exploration Roadmap GER is being developed by space agencies participating in the International Space Exploration Coordination Group (ISECG). The roadmap builds on the vision for coordinated human and robotic exploration of our solar system that was established in May 2007 and updated in 2011 and in August 2013. It reflects a coordinated international effort to prepare for collaborative space exploration missions beginning with the International Space Station (ISS) and continuing to the Moon, near-Earth asteroids, and Mars

In parallel, the European Space Agency is elaborating the technology exploration roadmaps that will in synchrony with the GER enable the ESA Member States to prepare for the upcoming complex missions yet to arrive.

2. The ESA road

The ESA roadmaps of technology for the exploration of the Solar System have been designed to set the goal of fostering robotics exploration with the final aim to support human exploration. Within those technology roadmaps, a set of key techniques and technologies play a special and remarkable role.

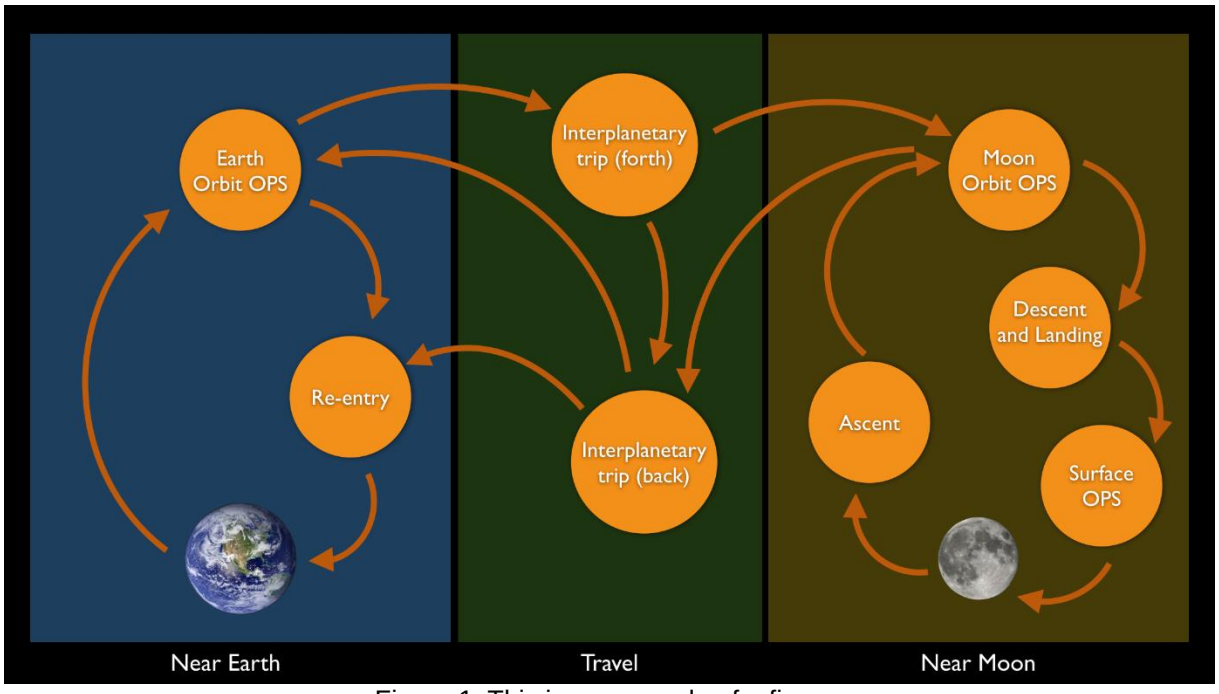

Figure 1: This is an example of a figure.

ESA initiated in 2013, under leadership of the Directorate for Technical and Quality Management, the development of its technology roadmaps for space exploration.

Two iterations of these roadmaps have been developed so far, one in 2013 and an updated version in 2015. A current iteration is on-going right now.

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Short Summary

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