

# MoonVillage Technology Foresight Worksho

B.H. Foing (1,2) (1) ESA ESTEC ; (2) ILEWG ([Bernard.Foing@esa.int](mailto:Bernard.Foing@esa.int))

## Abstract

We shall have a Technology foresight workshop in the context of elaborating the concept of a Moon Village with the goal of a sustainable human presence and activity on the lunar surface [1-3] as an ensemble where multiple users can carry out multiple activities. This enterprise can federate all interested Nations and partners. The Moon represents a prime choice for political, programmatic, technical, scientific, operational, economical and inspirational reasons.

## Previous MoonVillage projects

COSPAR and its ILEWG International Lunar Exploration Working Group (created 20 years ago) have been supporting opportunities of collaboration between lunar missions and exchange on future projects [4-8]. A flotilla of lunar orbiters has been deployed for science and reconnaissance in the last international lunar decade (SMART-1, Kaguya, Chang'E1&2, Chandrayaan-1, LCROSS, LRO, GRAIL, LADEE). De facto, collaborative opportunities and elements of a Robotic Village on the Moon exist, as China landed in 2013 the Chang'E3 and its Yutu rover, and from 2017 other landers are planned (GLXP, Chang'E 4&5, SLIM, Luna 25-27, LRP, etc..)

## Precursor technical studies

Previous roadmaps and technical studies held in international groups [4- 15] such as COSPAR, ILEWG, ISECG, IAF, IAA or national and regional groups (eg LEAG). We shall present the status of these reflections, and give an overview of on-going activities being carried out to enable the vision and implementation of a Moon Village.

## How to prepare next steps?

The Moon Village will rely both on automatic, robotic and human-tendered structures to achieve sustainable moon surface operations serving multiple purposes on an open-architecture basis. This initiative will rally all communities (across

disciplines, nations, industries, partners, individuals) and we should plan the technology.

## References

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