



# **Contribution to Sustainable Lunar Exploration and Utilization**

by

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64th COPUOS

Vienna

30 August 2021

# WHAT IS THE MOON VILLAGE ASSOCIATION ?

The Moon Village Association (MVA) created in June 2017,  
to foster the implementation of the Moon Village.

MVA is Member of IAF and Observer in United Nations - COPUOS

A forum to advance development of the Moon Village involving Industry, government, space agencies, international organizations / NGOs, and the Public at large.

A catalyst stimulating a virtuous cycle of investments for the development of a lunar economy

>800 INDIVIDUALS INVOLVED  
FROM 60 COUNTRIES:

- 25% Female
- 25% Students
- 35% Young Professional



>28 INSTITUTIONAL MEMBERS  
FROM 17 COUNTRIES

# MOON VILLAGE IMPLEMENTATION

## -Working Groups/Projects-



# Moon Village 2045 Reference Concept





# URGENT PROBLEM



- **Many Lunar missions planned in future, from many countries/stakeholders will be conducted in close by locations (i.e. South Pole, orbit)**
- **Lack of Coordination Mechanism could lead to harmful interference**
- **Need to Create confidence buildings and foster peaceful cooperation**



# SOLUTION

- **MVA SET UP:**

- **GLOBAL EXPERT GROUP on SUSTAINABLE LUNAR ACTIVITIES (GEGSLA)**

- **Multi stakeholders:**

- Space Agencies/Governments**
      - Industries,**
      - Academia,**
      - Civil society**
      - Public**

- **DEFINE/AGREE:**

- **Recommended Framework and Key Elements for Peaceful, and Sustainable Lunar Activities, this will include:**

- Principles**
    - Key Elements (i.e. information sharing)**
    - Guidelines, for implementation the key elements (i.e. interoperability, debris mitigation, safe operations, etc)**

# Participation of Space Emerging Countries (PECS)

MOON  
VILLAGE ASSOCIATION

## MVA-PESC 2021 Participating Teams

MOON  
VILLAGE ASSOCIATION

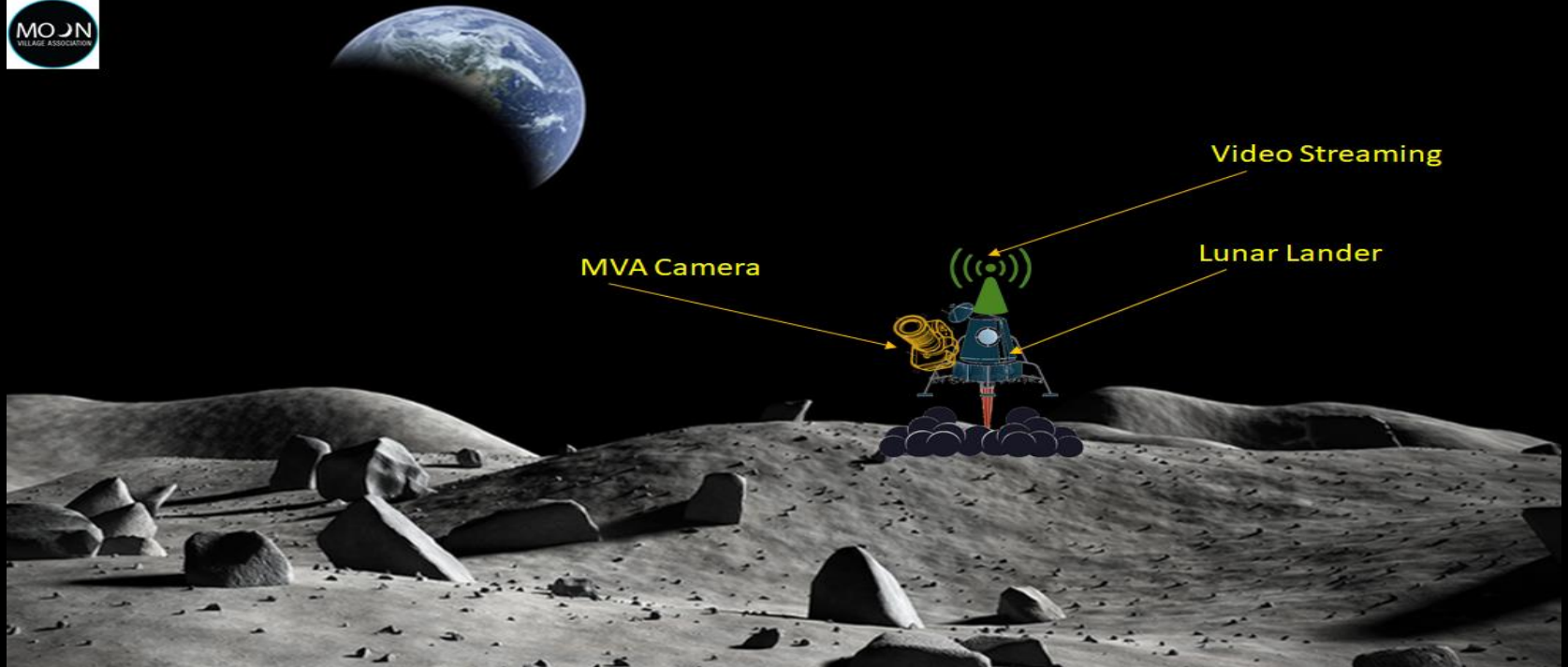


MV-PESC

REALIZING THE MOON VILLAGE:  
PARTICIPATION OF EMERGING  
SPACE COUNTRIES



# Payload Project



- The Project is involving a global industrial consortium from:  
CH, UK, Mexico, India, UAE, Egypt
- More countries are welcome
- MVA is seeking for the Lunar Lander carrier







# 5<sup>th</sup> Global Moon Village Workshop & Symposium

December 6-8, 2021  
Nicosia, Cyprus



Cyprus Space Exploration Organisation



# Global Network



- 49 national coordinators and 6 regional coordinators
- Call for new National and Regional Coordinators Open
  - Europe and Asia



# Some of the Recent Activities



- Jordan: Spacesuit and rover competition
- Italy: Thursday of Galassica
- Egypt: Social media promotion, SG[Egypt]
- Africa: has been focused on recruitment
- Greece: Moon 2069 – A way forward



## التلسكوب كأداة فنية والـ Overview Effect

غانم العتيبي



المحاور :

- دور الفنون في استكشاف الفضاء.
- أعمال فنية متعلقة بالكون والقمر من التراث العربي.
- تعريف الـ Overview Effect.
- صورة الارض من سطح القمر.
- ما يمكن تعلمه عن الـ overview effect من تجربة التلسكوب؟ ومن التراث العربي؟

Zoom Online

2021/4/20

PM 9:00



## MOON VILLAGE ASSOCIATION GREECE MOON 2069 : A WAY FORWARD JULY 24, 16.00 - 18.00 GMT+3



IOVEDÌ  
DI GALASSICA

dal 4 febbraio al 15 aprile,  
ogni giovedì alle 21 in diretta sulla pagina Facebook di  
GALASSICA  
FESTIVAL DELL'ASTRONOMIA

COLLABORAZIONE CON:  
MOON VILLAGE ASSOCIATION ITALY  
CON IL PATROCINIO DI:  
INFN  
ISTITUTO NAZIONALE FISICA NUCLEARE



COMPETITION ANNOUNCEMENT

اعلان مسابقة



# TOWARDS A LUNAR GENERATION WORKSHOP July 2021

## Sponsors and Partners

**LOCKHEED MARTIN**



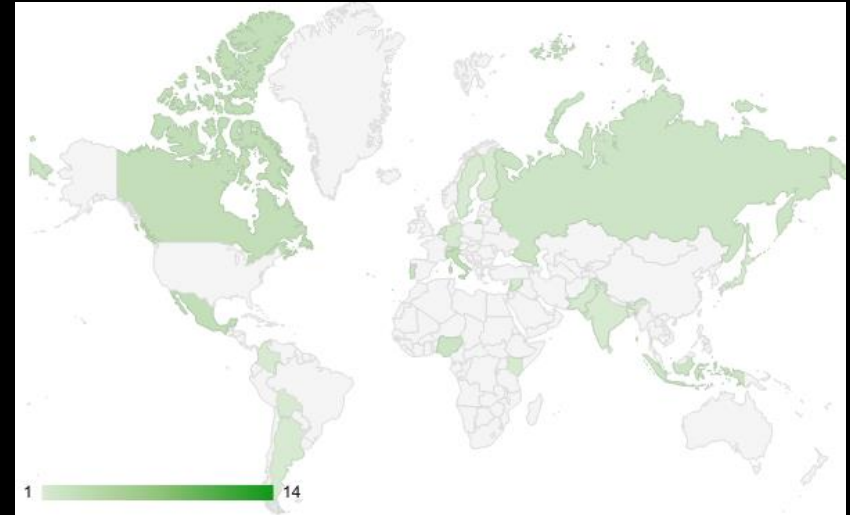
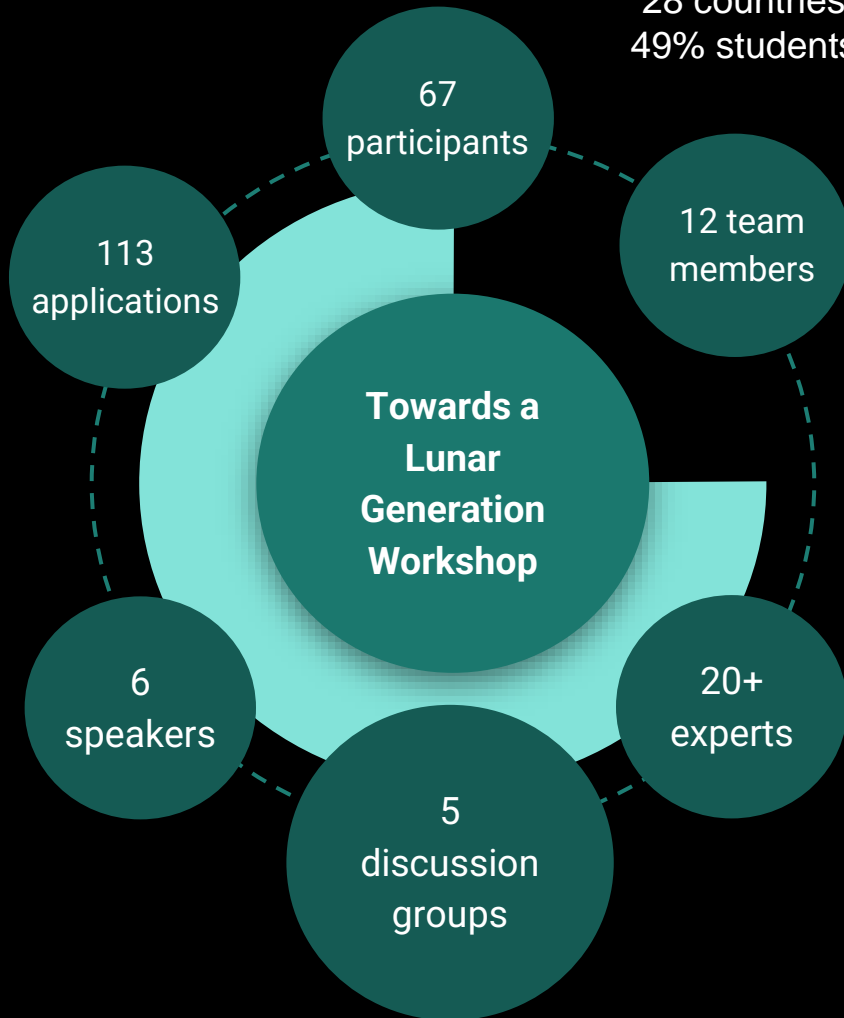
**SPACE GENERATION  
ADVISORY COUNCIL**





# Overview

Average age: 26  
28 countries  
49% students



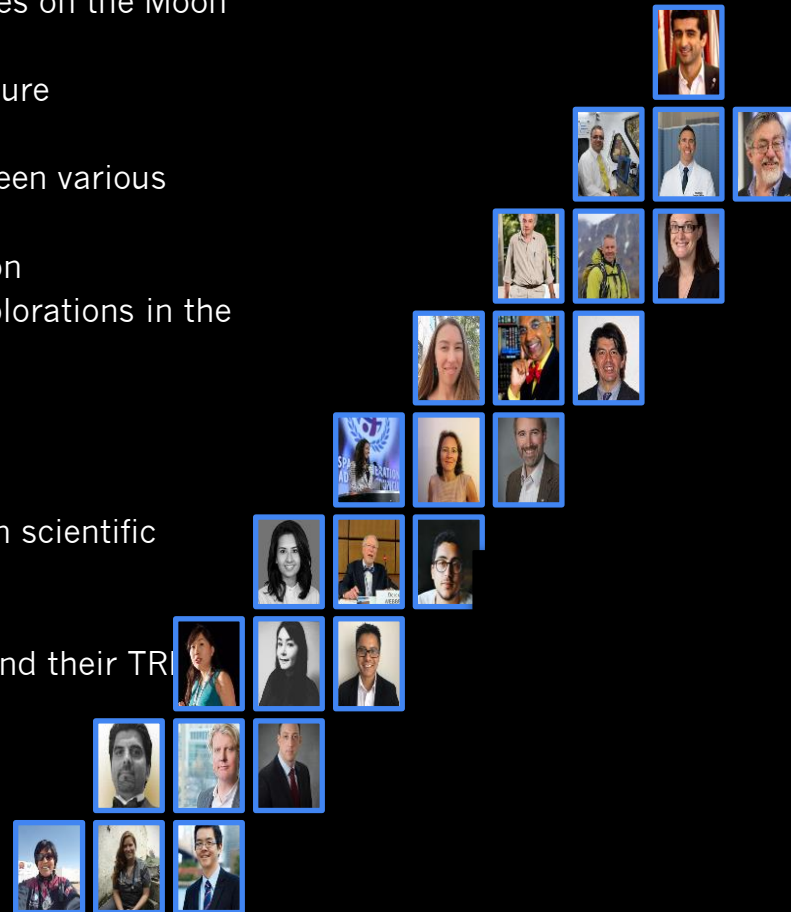
<https://moonvillageassociation.org/tlg2021/>

- Lunar Medical Autonomy
- Legal status and policy issues in Moon resource and Infrastructure development and utilization
- Innovation Craters Hackathon
- Moon as a base for science
- Technologies for a sustainable Moon village

# Discussion Groups



- Lunar Medical Autonomy
  - Infrastructure
  - High risk medical emergencies, and how can they be tackled
  - Major human factors (including mental health) challenges on the Moon
  - Role of analogues
- Legal and Policy Issues of Resource Utilization and Infrastructure
  - Main challenges and obstacles to a legal framework
  - Sharing of resources and infrastructure be shared between various stakeholders
  - Reducing the risk of unpeaceful interactions on the Moon
- Hackathon focused on developing business ideas for lunar Explorations in the year 2030.
- Science on the Moon
  - Scientific objectives beyond current objectives
  - Manned missions vs robotic missions
  - Role of (a permanent) human settlement on the Moon in scientific advancement
- Technologies for a sustainable Moon Village
  - Main enabling technologies for operation on the Moon and their TR
  - Role of emerging technologies
  - Role of emerging space countries
- 5, 10 and 50 year horizons
- Role of the MVA and SGAC



# Science on the Moon

## High Priority

### Objectives

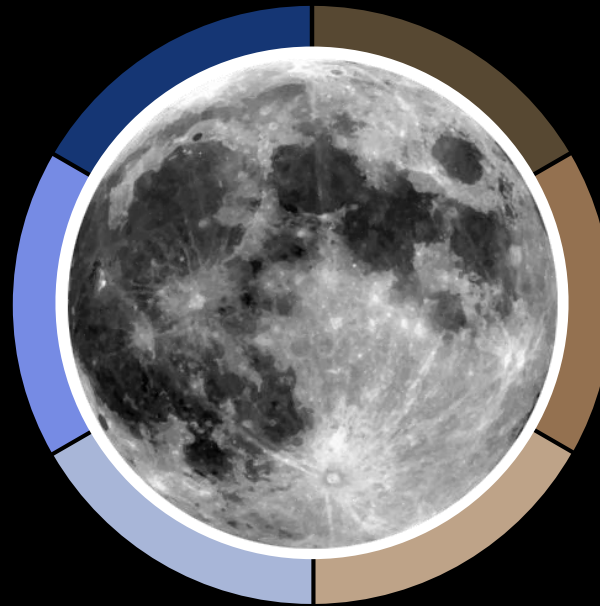
Quantum science/technology  
Analogues on Earth and Moon  
Moon-Earth ecosystem

## Humans ~~vs.~~ and Robots

Each has a role to play  
Human-robot collaboration

## Role of Moon Village

Human physiological research  
Sustainable community



## International Collaboration

Standardization of interfaces and goals  
Safety protocols and regulations

## Emerging Space Countries

Build on national priorities  
Identify scientific strengths

## Role of MVA

Foster international collaboration  
Create standardization working group

# New MVA Project: Towards the Moon Village Generation

- Formation of the project started:
  - Website is live and we are looking for volunteers!
- Next topics Workshop will be related to:
  - Role of Emerging Space Countries
  - Science Communication and the Role of the Arts
  - Equity, Diversity and Inclusion in the Moon Village



Thank you for your attention!

[www.moonvillageassociation.org](http://www.moonvillageassociation.org)

