ACCESS TO SPACE FOR ALL

“PATH FOR SPACE TECHNOLOGY CAPACITY-BUILDING”

A SIDE EVENT TO THE 66TH SESSION OF THE UN COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

31 MAY 2023 13:00 - 14:00 CEST

HYBRID EVENT: ROOM CR-3, VIC / MS TEAMS
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<td>13:00 – 13:10</td>
<td>Opening Remarks</td>
<td>Niklas Hedman</td>
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<td>13:10 – 13:25</td>
<td>Introduction to Access to Space for All</td>
<td>Hazuki Mori</td>
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<td>13:25 – 13:30</td>
<td>Remarks by the Permanent Mission of Germany to the International Organizations in Vienna</td>
<td>H.E. Gotz Volker, Carl Schmidt-Bremme</td>
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<td>13:30 – 13:40</td>
<td>Introduction of DropTES by the Center of Applied Space Technology and Microgravity (ZARM)</td>
<td>Thorben Könemann</td>
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<td>13:40 – 13:50</td>
<td>Introduction of HyperGES by the European Space Agency</td>
<td>Jack J.W.A. van Loon</td>
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<td>13:50 – 13:55</td>
<td>How to apply to DropTES and HyperGES</td>
<td>Wenbin Zhang</td>
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The goal of the Access to Space 4 All initiative is to provide research and orbital opportunities for UN Member States **to access space and to ensure that the benefits of space, in particular for sustainable development, are truly accessible to all**.

- **Acquire cutting-edge skills** for jobs and other opportunities and **develop hands-on capabilities** from A-Z
- **Free of charge access** to unique ground and space infrastructure, technology, and information
- **Gain international cooperation experience** through working with the UN and space-faring partners
- **Visibility** to the R&D and space activities already done in the country/region
- **Motivate the young generation** and boost interest in STEM

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**Access to Space for All in Numbers**

- 9 Hands on Opportunities
- 1 Annual Fellowship
- 32 Awardees involving 44 Entities from 32 countries
- 5 CubeSats launched
- 7 Microgravity Experiments performed
- 20 projects in development
- 68 Scholarships granted
- 100+ Hours of educational content on YouTube

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**4 Quality Education**

**8 Decent Work and Economic Growth**

**9 Industry, Innovation and Infrastructure**

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**SPACE4SDGS**
Access to Space for All
Impact of the initiative

Guatemalan team launches nation’s 1st CubeSat, wins Interplanetary Initiative prize

First Mauritian Satellite – Opening New Opportunities

Enthusiastic Youngsters
- The training program on antenna building gave us an insight of the high level of enthusiasm for this new field of space exploration, which

Aerospace, AI and Digital Centre
ESPITA was able to grow, to expand by Inauguration AEROSPACE, AI AND DIGITAL CENTER on July 2022

DropTES
- Which has participating in DropTES changed the environment around you?

First Mauritian Satellite – Opening New Opportunities

- MAURITIUS EMBARKS IN NEW SPACE ERA
  - Geolocation interesting for future space related activities
  - More advanced space nations
  - More challenging opportunities

- CAPACITY
  - Technical capacity
  - Pre-placement for generation
  - Preparation for socio-economic activities

- SOCIO-ECONOMIC PILLAR
  - Social possibilities for Mauritius
  - Open later for R&D, business
  - Governmental collaborations

ASU News
- Center
- Expertise
- Video series
- Magazine
- Bookstore

Enthusiastic Youngsters
- The training program on antenna building gave us an insight of the high level of enthusiasm for this new field of space exploration.
Access to Space for All is key in raising awareness about what space technology can do for the Sustainable Development Goals. Each application for an Access to Space for All hands-on opportunity requests the applicants to provide information on how their activity will support the Sustainable Development Goals. To date, UNOOSA has received applications that spanned over the 17 Sustainable Development Goals. Examples of how Access to Space for All supports the Sustainable Development Goals are:

- **SDG 4 “Quality Education”**: Access to Space for All provides educational resources supporting the hands-on component.
- **SDG 8 “Decent Work and Economic Growth”**: Access to Space for All builds capacity for individuals to access jobs in the space industry.
- **SDG 9 “Industry, Innovation and Infrastructure”**: Thanks to some of the hands-on opportunities available, Access to Space for All institutions create facilities that remain available once the opportunity has been completed.

However, the contribution of the initiative goes beyond these three SDGs. Access to Space for All initiative for Sustainability: Interview Series is a series of interviews with the partners and the awardees in the initiative, where they explain how their projects are tackling different SDGs.

- **Article #1 - How Bartolomeo x ClinCam Project Contributes to the SDGs**, an interview with Airbus and the awardee in the first round of Bartolomeo. [read more](#)
- **Article #2 - How Education Through PNST Contributes to the SDGs**, an interview with Kyushu Institute of Technology and a graduated student. [read more](#)
- **Article #3 - DropTES: The Stepping Stone into Space Activities and Its Contribution to the SDGs**, an interview with ZARM and Universidad Católica de Bolívar. [read more](#)
- **Article #4 - DropTES: The Opportunity to Expand Your Horizon and Its Contribution to the SDGs**, an interview with the 1st and 3rd round awardees. [read more](#)
- **Article #5 - PHI: The Platform to Realize Your Dreams**, an interview with the 2nd round awardees. [read more](#)
Access to Space for All
Structure of the initiative

**HYPERGRAVITY AND MICROGRAVITY**

Building capacity for conducting experiments in orbit
- Hands-on opportunities in hypergravity and microgravity from ground to orbit
- Open source tools bridging hands-on and education components
- Educational material for building up experiments

**SATELLITE DEVELOPMENT**

Building capacity that enables the development, deployment, and operation of satellites
- Hands-on opportunities for satellite deployment
- Open source tools bridging hands-on and education components
- Educational material supporting the whole life-cycle of satellites

**SPACE EXPLORATION**

Broadening the engagement in space exploration
- Hands-on opportunities to engage in space exploration
- Open source tools bridging hands-on and education components
- Educational material for space exploration
Access to Space for All
Hypergravity/Microgravity Track

- **Achievable entry point** to acquire knowledge and skills through conducting various experiments in many different scientific fields
- **Beneficial first step to start capacity-building** for space activities

**HYPERGRAVITY AND MICROGRAVITY**
- Building capacity for conducting experiments in orbit

**HANDS-ON COMPONENT**
- DropTES
- Suborbital and parabolic flights
- HyperGES

**EDUCATION COMPONENT**
- Bartolomeo AIRBUS
- China Space Station
- Dream Chaser SERRA

**TOOLS COMPONENT**
- FOR STUDENTS
- FOR TEACHERS
- FOR APPLICANTS

Open-source tools bridging hands-on and education components

Kibo-RPC JAXA

Hands-on opportunities in hypergravity and microgravity from ground to orbit

Education material for building up experiments
CubeSats offer a large variety of applications.

CubeSat development can be the first step for a country in the acquisition of the skills and know-how needed to develop a space programme.

CubeSats are affordable to develop and represent an achievable entry point to space activities.
Increasing capability in astronomy/observation and space data analysis can **deepen scientific knowledge and support necessary technology** for monitoring space debris, managing space traffic, and future exploration beyond GEO.

Space exploration can **motivate the young generation** who are the leaders of tomorrow.

Space exploration is an international effort and it can **foster international cooperation**.
Access to Space for All
Overview of the Expert Meeting

Details
Date: 15 – 17 May 2023
Format: online
Target Audience: partners, awardees, government, potential applicants and partners, and the general public

Objectives
Share and gain insights from success stories and challenges on capacity-building activities and effective outreach
Discuss how to improve the Access to Space for All initiative
Bring together partners, awardees, supporting governments, and potential future partners and applicants of the initiative to build new partnerships
Raise awareness of the Access to Space for All initiative

Presentations, Videos, and the Report to COPUOS are available on our website!
Click here or scan the QR code
UNOOSA and the partners will take the feedback into consideration when opening a new round of applications.

List of opportunities to be open in 2023

- **DropTES**: 31 May 2023  see the DropTES Rounds page or scan the QR code
- **HyperGES**: 31 May 2023  see the HyperGES Rounds page or scan the QR code
- **KiboCUBE**: 2 June 2023  see the KiboCUBE Rounds page or scan the QR code
- **Payload Hosting Initiative (PHI)**: Q4 2023
- **Post-graduate study on Nano-Satellite Technologies (PNST) Fellowship**: Q4 2023

Continue to build new partnerships to provide more opportunities.

Explore more ways of advancing the outreach activities.
We are looking for...

- **On-ground and on-orbit experiment opportunities**
- **Sub-orbital, parabolic and balloon flight opportunities**
- **Launch opportunities for CubeSats/hosted payloads**
- **Access to infrastructure and provision of scientific tools**
- **Fellowships/internships** for students/professors from developing countries
- **Educational content**
- **Open-source cost-free software and tools**
Any questions?

Contact us
✉️ unoosa-access-to-space@un.org
Help us help
#AccSpace4All

For more stats and information, check out the brochure!